Our ref LXK:1040945



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8 July 2020

Danielle Staltari Director, Adjudication Australian Competition and Consumer Commission

By email: danielle.staltari@accc.gov.au

Copy to: Luke Griffin; Gavin Jones; Miriam Kolacz

Public register version- restriction of publication claimed in relation to part

Dear Danielle

Boral Cement Limited application for authorisation AA1000517 – request for further information

We refer to the Application made by Boral Cement for the authorisation of its offtake, operation and maintenance agreement (**OOMA**) with Stanwell Corporation Limited (the **Application**). We refer also to the request for further information set out in your letter, dated 19 June 2020.

We enclose and attach the answers to your questions at **Attachment A**, with supporting documents and data provided in **Attachments B-H**.

Information highlighted yellow has been identified as confidential by Boral. Boral requests that this information be withheld from the public register as it is competitively and commercially sensitive, non-public information and its disclosure would unduly prejudice Boral in the conduct of its lawful business.

Boral claims this confidentiality on the basis that:

[Confidential - restriction of publication claimed]

Boral Cement has carefully considered the information that it considers to be confidential and has sought to make available as much information as possible on the public register.

Please let us know if you would like further information on the basis for these confidentiality requests.

Enclosed with this response is a proposed public version of this letter and the response (with confidential information redacted). This version may be placed on the Public Register.



Boral would be happy to discuss any of its responses and to provide further information as needed by the ACCC. We would also welcome the opportunity to discuss with the ACCC any concerns or questions they may have in relation to the application for authorisation.

Yours faithfully Gilbert + Tobin

Louise Klamka Special Counsel



Attachment A – Response to request for further information

1. Please provide Boral Cement's business case supporting the proposed investment and arrangements more broadly with Stanwell. Please provide:

a) Details of the financial assessment used to support Boral Cement's business case.

The financial assessment used to support Boral Cement's business cases is contained in the Tarong Fly Ash Investment Paper (Investment Paper) at **Confidential Attachment B** and in **Confidential Attachment C**.

A forecast of financials by calendar year for the initial 5-year term is shown in the Investment Paper at pages 2-3. The forecast includes a Base Case which shows anticipated sales, as follows:

[Confidential - restriction of publication claimed]

The indicative valuation metrics are set out at the Investment Paper at page 3 of the Investment Paper and are extracted below:

[Confidential - restriction of publication claimed]

Further detailed financial metrics are provided in the Investment Paper at page 4 and Scenario / Modelling calculations are contained in Boral's capital expenditure request dated 25 October 2018 and provided at **Confidential Attachment C.** An extract is provided in **Confidential Figure 3** below.

To assist in the ACCC's review of this data, a description of each of the rows in the extract is provided below:

[Confidential - restriction of publication claimed]

Confidential Figure 3: Modelled financial metrics

[Confidential - restriction of publication claimed]

A discounted cash flow analysis for the Years 1 to 5 of the project is contained in Boral's capital expenditure request dated 25 October 2018 at tab "CER – Form 3 – FULL". The spreadsheet is provided at **Confidential Attachment C**, and the below extract:

Confidential Figure 4: Discounted cash flow analysis

[Confidential - restriction of publication claimed]

b) Why is the new facility required, noting that fly ash has previously been collected from Tarong PS?

As the ACCC is aware, Cement Australia, through its subsidiary Pozzolanic Enterprises, operated a fly ash offtake-facility at Tarong, taking up to 400ktpa of fly ash from the facility. Following the ACCC's successful proceedings against Cement Australia, Pozzolanic Enterprises ceased its operations at



Tarong in July 2014 and over the coming months Cement Australia removed the fly ash capture and classification equipment it had installed at the site.

In August 2014, Stanwell entered a 10-year deal with a company called Coal Reuse to enable it to take and sell fly ash from the site. In July 2015, Coal Reuse announced that it would construct a fly-ash handling facility at Tarong. However, when Coal Reuse was placed into liquidation in September 2016, and its agreement with Stanwell was terminated, it had not commenced construction of this facility.

Since that time, Tarong Power Station has stored fly ash in voids at Meandu Mine and there has been no facility for the collection or classification of fly ash at Tarong PS.

In order to collect fly ash, the new facility is required. Further some of the fly ash must also be classified in order to be utilised in accordance with Australian standards. Construction of the new facility has already commenced under the Design and Construct Contract (**DCC**).

[Confidential - restriction of publication claimed] As can be seen in Confidential Attachment E, Stanwell specified the building of the classifier and fly ash collection and storage facility which will be constructed under the DCC. The plant will be owned by Stanwell, not Boral, and Boral will have no right to remove the equipment if the OOMA is terminated or not renewed. Stanwell has taken steps through the DCC to ensure that the plant can be used by any future operator, if its arrangements with Boral are unsuccessful.

c) An explanation of why Boral is planning to invest capital into a new facility where it observes there is already an over-supply of fly ash. For example, is Tarong PS fly ash more desirable than other sources of fly ash? If so, why? Has Boral encountered difficulties in sourcing fly ash for its own use?

Please see the Investment Paper provided at Confidential Attachment B.

Boral considers that there is likely to be growth in demand for fly ash as an alternative to other cementitious products, particularly as it offers a more sustainable and lower cost input into concrete. It considers that this demand will grow for two reasons:

- The general increase in demand for concrete within SEQ; and
- An increase in the use of fly ash as a proportion of the inputs to concrete production as
 businesses switch from less sustainable cementitious products as they seek to improve their
 environmental footprint, including in preparation for the potential reintroduction of a carbon price
 or other environmental legislation.

Consistent with this, Boral is looking to build an ash management and recycling business that will enable it to more efficiently source quality fly ash as an input to its own concrete business, as well as capture external sales, meeting and stimulating demand for fly ash products.

As set out in the Investment Paper, the key strategic rationale for Boral's investment are:

Build fly ash capacity and exposure to sustainable products [Confidential - restriction of publication claimed]



[Confidential - restriction of publication claimed] The investment will provide a strategic path towards a future 'ash management' and 'recycling' business;

- Secure fly ash supply for SEQ concrete business which uses [Confidential restriction of publication claimed] fly ash as cementitious in concrete [Confidential restriction of publication claimed] to improve total performance, lower total concrete costs and meet Main Roads specification;
- Capture external sales of fly ash of [Confidential restriction of publication claimed], including potentially from SEQ premix / precast / masonry customers, wholesale trade, [Confidential restriction of publication claimed] road bases / stabilisation and grouts. Strong EBITDA upside exists as majority of business costs are fixed and variable costs are minimal;

Strong fly ash innovation potential to drive higher fly ash usage in premix concrete and other construction materials especially if carbon schemes are introduced. Immediate opportunities include ultrafine fly ash and high fly ash concretes; and

Boral Cement does not have a direct SEQ cement position which opens more opportunities to use fly ash as an alternative to other cementitious products.

d) Details of the geographical locations to which Boral Cement proposes supplying Tarong PS fly ash, and any associated transport options Boral Cement has considered to supply customers in those locations.

Boral Cement proposes supplying Tarong PS fly ash in SEQ and is considering export from SEQ [Confidential - restriction of publication claimed].

Boral notes that, given the lower demand for fly ash outside of SEQ, it has not undertaken very detailed analysis of the potential sales in these areas, focusing on internal sales and volumes that are currently acquired from SEQ.

Cementitious products in SEQ, including fly ash, are typically sold on an ex-works basis, that is, from the plant and excluding delivery costs. Boral plans to sell fly ash on an ex-works basis from Tarong. In addition, it will offer delivered pricing to customers who prefer to acquire on that basis.

e) Details of the customers that Boral intends to target for the supply of fly ash. For each of these prospective customers identify if they currently use fly ash or not.

As set out in **Confidential Annexure B**, Boral has identified the following categories of customers that it intends to target for the supply of fly ash:

By segment:

Premix fly ash;

Precast fly ash;

BP / masonry fly ash;

Wholesale trade;



- Exports of fly ash from SEQ; and
- SEQ non-concrete uses (e.g. road bases, stabilisation and grouts).

Boral has not yet developed a plan to target any specific customers. However, below is a list of potential customers that it may seek to supply. It considers that all these customers are likely to currently use fly ash. The likelihood that these customers would purchase fly ash from Boral depends on their existing contractual arrangements and relationships, and Boral anticipates that some are more likely than others to switch some of their volume to Boral. For example, pre-mix fly ash users that are a partner or shareholder in joint ventures which supply fly ash in their own right, such as Holcim and Hanson in the case of Cement Australia, and Wagners and Neilsen in the case of IFB, are less likely to switch their purchasing to Boral than independent concrete producers or other non-vertically integrated acquirers of premix fly ash. Boral has taken these considerations into account, on a preliminary basis, in its financial model, as set out at Confidential Attachment C.

Customer	Current user of fly ash?			
Premix Fly Ash				
Holcim	Yes			
Hanson	Yes			
Barro	Yes			
Hytec	Yes			
Neilson	Yes			
Wagners	Yes			
Sunmix	Yes			
Cordwells	Yes			
Nucon	Yes			
Mansell	Yes			
CSS	Yes			
Indies	Yes			
Precast Fly Ash				
Wagners	Yes			
Rocla	Yes			
RCPA	Yes			
Indies	Yes			
BP / Masonry Fly Ash				
ABL Masonry	Yes			
Brickworks	Yes			
JH	Yes			

f) Details of the quantities of fly ash that Boral intends to sell to third parties in each year of the Operation and Maintenance Agreement (OOMA), including any extensions to the OOMA. Please provide source documents to support the response to these questions.

The new facility will have a capacity of 400 ktpa of fly ash. Based on the Base Case scenario described in the Investment Paper at Confidential Annexure B, Confidential Figure 5 sets out the volumes of fly ash Boral intends to sell to third parties during the first term of the OOMA. These figures are based on Boral's assessment of current demand and the availability of alternative sources of fly ash within the market, taking a conservative approach to demand in order to ensure that the business case necessary to support investment is properly supported.



At the same time, Boral is incentivised to sell fly ash to third parties under the terms of the OOMA and as a consequence of its take or pay obligations which provides that it takes a volume of fly ash from Tarong which exceeds Boral's internal fly ash requirements.

Confidential Figure 5 – estimated volumes of fly ash sales

[Confidential - restriction of publication claimed]

As set out in the Submission in support of authorisation application dated 3 June 2020, the OOMA runs for a 5-year period, renewable at the option of either party for a further 5 years subject to OOMA clause 3.2. Sales quantities and modelling has not been completed for the extension period (i.e. beyond Year 5).

See source documents:

- Confidential Attachment B Tarong Fly Ash Investment Paper Boral Cement dated 28 March 2019; and
- Confidential Attachment C Boral's capital expenditure request dated 25 October 2018.
- 2. Please outline the projected fly ash production at Tarong PS and the capacity of the fly ash facility to be constructed under the Design and Construct Contract (DCC), including:
 - a) What kind, standard or quality of fly ash would be available for offtake from Tarong PS upon the construction of the DCC, and in what volumes?

Fly ash products must meet Australian Standards for Grade 1 or Grade 2 in order to be sold and used as a cementitious material. These standards are extracted at Figure 6 below.

Boral proposes to produce both Grade 1 and Grade 2 fly ash in accordance with the limits of the expected fineness of fly ash available in each of the zones at Tarong, as set out in the extract from the Tarong Expression of Interest at Figure 7 below. The bulk of the volumes produced are expected to be Grade 1.

The precise volumes to be produced are not known at this stage and will vary depending on the actual output of each zone within the Tarong power station. However, Figure 7 provides an indication of the volumes of Grades 1 and 2 which may theoretically be available for collection.



Figure 6 - Australian Standards for fly ash - extract

TABLE 1 MATERIAL REQUIREMENTS

Property (see Note 1)	Special grade limits	Grade 1 limits	Grade 2 limits	Reference method
Fineness by mass passing 45 μm sieve, % minimum	85	75	55	AS 3583.1 or AS 2350.9
Moisture content, % maximum	0.5	0.5	0.5	AS 3583.2
Loss on ignition, % maximum	3.0	4.0	6.0	AS 3583.3
Relative density	-	=	8	AS 3583.5
Relative water requirement, %	-	-	.=	AS 3583.6
Strength index, % minimum	105 (see Note 2)	75 (see Note 2)		AS 3583.6
Sulfate (as SO ₃) content, % maximum	3.0	3.0	3.0	AS 3583.8 or AS 2350.2
Total alkali, %	See Note 3	See Note 3	See Note 3	AS 2350.2
Chloride ion (Cl) content, % max1mum	0.1	0.1	0.1	AS 3583.13 or AS 2350.2
Chemical composition in Australia (SiO ₂ + Al ₂ O ₃ + Fe ₂ O ₃)	70% minimum (see Note 4)			AS 2350.2
Chemical composition in New Zealand (SiO ₂ + Al ₂ O ₃ + Fe ₂ O ₃)	60% minimum			AS 2350.2

Figure 7 – Extract from Expression of Interest

[Confidential - restriction of publication claimed]

b) What kind, standard or quality of fly ash does Boral plan to take from Tarong PS, and in what volumes?

[Confidential - restriction of publication claimed]

c) Why is the new facility only planned to access Zones 1-3 as described in section 3.3 of Boral's submission and why is the existing wet ashing system planned to continue for Zones 4 – 6 as well as to remove fly ash from zones where a high level of fly ash has been detected.

[Confidential - restriction of publication claimed]

It requires significant investment to connect pipework to each additional zone and plug that into the collection and classification plant. [Confidential - restriction of publication claimed]



3. What is Boral Cement's and its related bodies corporate expected usage of fly ash, including the relevant kind, standard or quality of fly ash (if relevant), during each year of the term of the OOMA (including any extensions)? At which of its locations is it anticipated that this usage will occur? Please provide documents to support the response to this question.

The Investment Paper at **Confidential Attachment B** and financial modelling at **Confidential Attachment C** set out at a high level the expected usage of fly ash by Boral entities and is reflected in the internal sales projections included in answer to question 1(f) above. Boral has not yet modelled its usage during any extension.

As shown in Attachment G, Boral Concrete has a number of locations across Queensland and Northern NSW. Boral Cement expects that Tarong fly ash may be used at some or all of these locations, depending on the economic merit of supply ex-Tarong as compared with other available alternatives. Boral Cement has not modelled each individual batch plant's potential usage of fly ash but notes that future use at these plants will depend on a range of factors, including customer preference, specified requirements and the availability of alternative products.

4. Please explain whether it is likely that the introduction of fly ash from Tarong PS will increase the usage of fly ash in downstream markets, and if so, why?

Boral expects that the introduction of fly ash from Tarong will likely increase the usage of fly ash in downstream markets and, as described in answer to question 1(c), this expectation is an important part of the strategic rationale for the Proposed Agreements. The availability of further fly ash in the market will meet growth in the demand for fly ash as an input in concrete production, both as a result of a general growth in demand for concrete and increased demand for fly ash as a substitute for other cementitious materials, resulting in an overall increase in the percentage of fly ash used in concrete production. In this context, Boral is seeking to increase the supply of fly ash both to build an ash business and to secure its own supply for its concrete business.

Importantly, the greater certainty of supply that an increase in market capacity from Tarong volumes will provide will support and further stimulate this growth in demand. The volumes of fly ash produced by a power station is subject to volatility. Stations often have periods of maintenance on their power generating systems or fly ash disposal systems. When a power station is taken offline for a period, there is generally insufficient fly ash in storage to continue to meet demand and concrete producers will generally switch to cement to cover shortfalls in fly ash. This disruption can be short term or long term such. For example, Bayswater Power station was unable to supply fly ash for several months due to an environmental concern. The more power stations that are able to make fly ash available for sale to concrete producers and other fly ash users, the more demand there is for fly ash.

[Confidential - restriction of publication claimed]

From an environmental perspective, the introduction to the market of fly ash from Tarong PS will enable both Boral and potential third-party customers to access more sustainable products through ash management and recycling, lowering the carbon footprint associated with the production of concrete and reusing a waste product from Tarong.

As part of building its ash business, Boral is seeking to stimulate demand for fly ash. It intends to deliver innovations in fly ash to drive higher fly ash usage in premix concrete and other construction materials, in order to prepare for any introduction of a carbon pollution reduction scheme by the



Australian Government. In that instance, there would be additional costs for cement-based products and fly ash would become a more attractive alternative.

5. How much does Boral Cement currently pay for fly ash from other sources including its joint ventures? Please provide the average price per tonne for the last financial year from each source and include an explanation of the kind, standard or quality of the fly ash along with information about transport costs that may be relevant.

[Confidential - restriction of publication claimed]

6. Please provide details of the amount and location of any concrete or cement production by Boral Cement or related parties in Queensland and other east coast locations.

Maps setting out the location of Boral Concrete's concrete batching plants in Queensland and Northern NSW are provided in Attachment G. Note that due to the setting rate of concrete, batching plants must be located close to the site of their end use and therefore concrete producers have numerous sites co-located with metropolitan and industrial areas, with markets operating on a local area basis (of about 80km or 50 minutes driving time).

Attachment H sets out the location of Boral Cement's plants nationally. Cement is more transportable than concrete and can be exported and imported. Markets tend to operate on a broader geographic basis.



Confidential Attachment B - Investment Paper, 28 March 2019

[Confidential - restriction of publication claimed]



Confidential Attachment C – Capital Expenditure Request model, 25 October 2018

[Confidential - restriction of publication claimed]



Confidential Attachment D – Financial estimates for Tarong Power Station Fly ash classification and despatch plant

[Confidential - restriction of publication claimed]



Confidential Attachment E – Expression of Interest for Fly Ash Strategic Partnership, 17 July 2018

[Confidential - restriction of publication claimed]

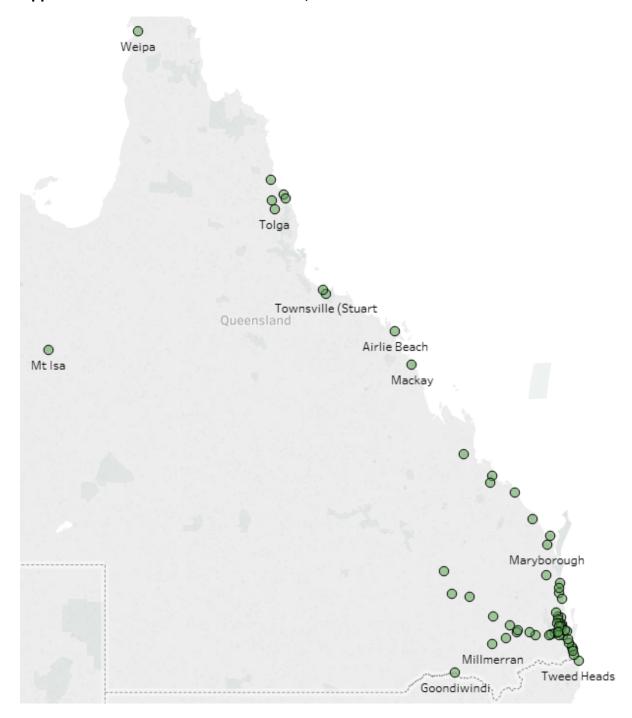


Confidential Attachment F – Boral's response to Stanwell's Request for Expression of Interest

[Confidential - restriction of publication claimed]



Appendix G - Boral Concrete Locations, Queensland and Northern NSW







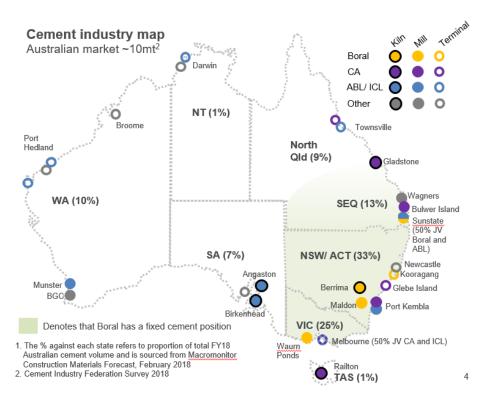


North NSW





Appendix H -Boral Cement locations - Australia





1. Denotes grey equivalent; Shrinkage Limited (SL); High Early Strength (HE); Off-White (OW); General Purpose (GP); Adelaide Brighton (ABL); Fly Ash Australia Joint Venture (FAA)