



# **PUBLIC DISCLOSURE STATEMENT**

**BORAL CONSTRUCTION MATERIALS LTD**

**PRODUCT CERTIFICATION**


**FY2020-21**

Australian Government  
**Climate Active**  
**Public Disclosure Statement**



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	Boral Construction Materials Ltd
REPORTING PERIOD	1 July 2020 – 30 June 2021 (True-up)
DECLARATION	<p><i>To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.</i></p>  <p>Name of signatory: Scott Carter Position of signatory: Group Environment Manager Date: 5/11/2021</p>



**Australian Government**  
**Department of Industry, Science,  
Energy and Resources**

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Version September 2021. To be used for FY20/21 reporting onwards.



# 1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	167 tCO <sub>2</sub> -e
THE OFFSETS BOUGHT	100% ACCUs
RENEWABLE ELECTRICITY	0%
TECHNICAL ASSESSMENT	Date: 05 May 2020 Name: Rob Rouwette Organisation: start2see Pty Ltd Next technical assessment due: 31 October 2023
THIRD PARTY VALIDATION	The carbon footprints are based on our Environmental Product Declarations, which have been independently verified by Andrew D. Moore of Life Cycle Logic.

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## 2. CARBON NEUTRAL INFORMATION

### Description of certification

As part of Boral's commitment to sustainability, Boral has obtained an opt-in Carbon Neutral product certification for its pre-mixed concrete products in NSW/ACT. This product certification aligns with the Boral Australia Pre-Mix Concrete Environmental Product Declaration (EPD). Released in 2021, our range of EPDs captures a large number of product variations (i.e. mix designs) including some of Boral's lower carbon, high performance pre-mixed concrete products such as ENVISIA. This is also complemented with some more conventional mix designs produced at key Boral concrete batch plants across New South Wales (NSW) and the Australian Capital Territory (ACT).

The EPDs help us support our customers in delivering on their sustainability goals by providing externally verified transparent and comparable information about life-cycle environmental impact of a range of our pre-mix concrete products. The life cycle assessment (LCA) from the EPD is also being built into a carbon calculator, which can be used to determine the life cycle greenhouse gas emissions of any given concrete product type and of any quantity. The EPD and carbon calculator LCA methodology is in accordance with the international standards ISO 14025, ISO 14040 and ISO 14044 and has been verified to be compliant with EN 15804. As such, the carbon accounting within the EPD and carbon calculator closely aligns with those principles set out in the Climate Active Product and Services Standards. The streamlined EPD certification pathway with Climate Active has therefore been adopted to cover the scope of this carbon neutral certification.

Carbon neutral products are available to Boral customers on an opt-in basis. This will allow carbon neutral certification to be applied on a project and/or client basis. The type and quantity of concrete products supplied to a project and/or client can be negotiated with carbon offset requirements determined using the EPDs or carbon calculator. The total carbon emissions inventory to be offset will be assessed annually based on the quantity of carbon neutral certified products sold.

The emissions reported in this true-up document are for FY2021, which is the first year of certification.

The functional unit is defined as *1 cubic metre (m<sup>3</sup>) of pre-mix concrete (as ordered by client) with a given strength grade and identifying characteristics.*

*“Boral is committed to continually improve our processes to minimize, and where possible eliminate, environmental risks to achieve our goal of Zero Harm Today.”*

## Product/Service description

**Boral is the largest integrated construction materials company in Australia, with a leading position underpinned by strategically located quarry reserves and an extensive network of operating sites. We also manufacture and supply a range of building products.**

Boral Concrete is a supplier to industrial, commercial, and residential building projects combining technical expertise and on-site capability. Boral Concrete has over 230 pre-mix concrete plants around Australia (of which 96 in NSW/ACT) producing a wide range of concrete mixes in metropolitan and country areas.

Boral's focus is on reducing the environmental footprint of our operations as well as meeting the needs of our customers who are increasingly looking to use more sustainable products. We are increasing our investment in innovation to enable us to expand our products and solutions that have a lower carbon footprint and thereby positively contribute to an effective transition to a lower carbon economy. Boral's ENVISIA® and Envirocrete® products underpin this improved sustainable concrete range. These products contain Supplementary Cementitious Materials (SCM) to reduce the high emissions associated with cement content in the manufacturing process. These products, however, do not compromise on performance outperforming conventional concretes in terms of shrinkage and creep. These products are captured within the scope of Boral Australia's range of Pre-Mix Concrete EPDs and subsequently this carbon neutral certification.

Our carbon neutral certification covers the cradle-to-gate life cycle stages of our products. Downstream life cycle stages (i.e. gate-to-grave) are outside the scope of the EPD and therefore this carbon account. The impact of downstream life cycle stages (e.g. transport to construction site, construction, use, disposal) is relatively minor, but shall not be considered zero.

## 3. EMISSIONS BOUNDARY

### Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

**Quantified** emissions have been assessed as 'attributable processes' that become the product, make the product and carry the product through its life cycle. These have been quantified in the carbon inventory.

**Non-quantified** emissions have been assessed as attributable and are captured within the emissions boundary but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

### Outside the emissions boundary

**Non-attributable** emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

The following diagram shows an overview of emission sources considered.

**Inside emissions boundary**

**Quantified**

*Electricity*

*Stationary energy used in production*

*Fuels used in equipment*

*Fuels used in materials transport*

*Process emissions (clinker production)*

*Explosives (quarries)*

*Water*

*Waste*

**Non-quantified**

*n/a*

**Outside emission boundary**

**Non-attributable**

*Capital goods*

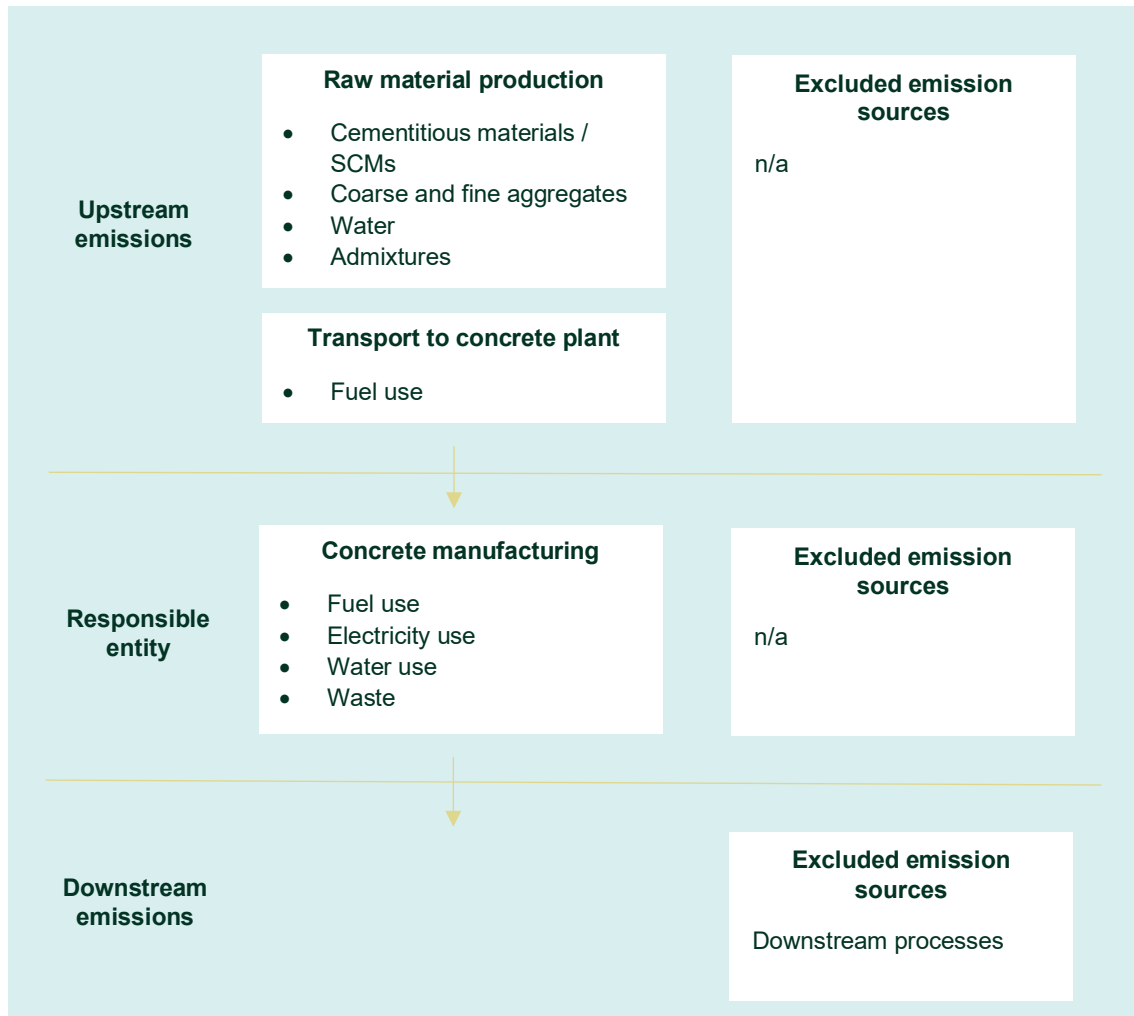
*Personnel*

**Excluded**

*Downstream life cycle stages*

## Product/service process diagram

The following diagram covers the cradle-to-gate life cycle stages of concrete. Downstream life cycle stages are not included as the concrete can be used for a large number of potential applications in infrastructure projects or industrial, commercial and residential building projects. Furthermore, full life cycle LCAs show that downstream stages typically contribute only marginally to pre-mix concrete's GHG emissions.<sup>1</sup>



The contribution of capital goods (production equipment and infrastructure) and personnel is outside the scope of the LCA, in line with the Product Category Rules.<sup>2</sup>

## Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

<sup>1</sup> For example, see figure 2 in: R Frischknecht et al 2019 IOP Conf. Ser.: Earth Environ. Sci. 323 012037  
<sup>2</sup> International EPD System PCR2012:01 (version 2.33), Product category rules according to ISO 14025 and EN 15804, Combined PCR and PCR Basic Module for Construction products and Construction services, registration number 2012:01, published on 18 September 2020.



## 4. EMISSIONS REDUCTIONS

### Emissions reduction strategy

Boral is committed to continually improve our processes to minimize, and where possible eliminate, environmental risks to achieve our goal of Zero Harm Today. Boral is making progress towards full alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as well as with the Sustainability Accounting Standards Board (SASB).

In 2021, Boral has defined a new Sustainability Framework that identifies 17 priorities across four key areas: Our People, Our Operations, Our Products and Our Performance. The priorities are aligned with the sustainability issues identified through our latest sustainability materiality assessment completed during the year and our Financial Framework. This includes ambitious sector-leading science-based emissions reduction targets that align with reaching net-zero emissions by 2050.

We have identified and planned our decarbonisation pathways that underpin our targets, including shifting to renewable and alternative energy sources and growing the revenue share of our proprietary lower carbon concrete offering. To encourage the adoption and use of lower carbon concrete, we broadened our lower carbon concrete range with the launch of Envirocrete® Plus. In collaboration with Lendlease, we also delivered our first Climate Active-certified net carbon neutral concrete.

Replacing general purpose cement with supplementary cementitious materials to produce lower carbon high performance pre-mix concrete products is key to Boral's emissions reduction strategy. Boral Australia's Pre-Mix Concrete EPDs and carbon neutral certification supports this strategy through providing externally verified transparent and comparable information about our range of pre-mix concrete products. This assists with the sustainable procurement of construction materials supplies and enables our customers to deliver on their sustainability goals.

### Emissions reduction actions

The emissions associated with concrete products are mostly dependent on the raw materials used. We are making our low-carbon products available in more locations and our EPDs assist our customers in choosing the lowest carbon option for their needs.

*“We are progressing strategies to leverage the opportunities of a lower carbon economy and to further mitigate our climate change risks.”*

## 5. EMISSIONS SUMMARY

### Emissions over time

Emissions since base year		Total tCO <sub>2</sub> -e	Emissions intensity of the functional unit
Base year:	2020-21 (projected)	160	0.250 t CO <sub>2</sub> e/m <sup>3</sup>
Base year:	2020-21 (true-up)	167	0.227 t CO <sub>2</sub> e/m <sup>3</sup>

### Significant changes in emissions

The total emissions for the carbon neutral certified products have not changed significantly from what was projected. However, we ended up selling a larger quantity of carbon neutral certified concrete with lower average GHG intensity per m<sup>3</sup> of concrete.

### Use of Climate Active carbon neutral products and services

No Climate Active carbon neutral products or services have been used in the cradle-to-gate production of our concrete.

### Product emissions summary

Stage	Projected emissions tonnes CO <sub>2</sub> -e	Actual Emissions tonnes CO <sub>2</sub> -e
Raw materials (cement, slag, fly-ash, ZEP®, aggregates, admixtures, water)	90-95%	90-95%
Transport of raw materials to the concrete plant	5-10%	5-10%
Concrete production process	1-3%	1-3%

No uplift factors were included in the emissions total.

Concrete supplied to a single project in Canberra made up the total volume of carbon neutral concrete sold in FY21. To demonstrate commitment to carbon neutrality for FY22, Boral estimates about 0.1% of all concrete sold in NSW/ACT (approximately 3,000,000 m<sup>3</sup>) will be sold as carbon neutral and has purchased offsets in advance.

Emissions intensity per functional unit sold in FY21	~0.250 t CO <sub>2</sub> e	<b>~0.227 t CO<sub>2</sub>e</b>
Number of functional units to be offset	634 m <sup>3</sup>	735 m <sup>3</sup>
Total emissions to be offset	160 t CO <sub>2</sub> e	167 t CO <sub>2</sub> e

## 6. CARBON OFFSETS

### Offsets strategy

Boral applies a forward purchasing strategy. We estimate the volume of concrete that will be sold in an upcoming reporting period and purchase and retire offsets accordingly. At the end of the reporting period, we will true-up our offsets and update our estimate for the following reporting period.

Offset purchasing strategy: Forward purchasing	
1. Total offsets previously forward purchased and banked for this report	1000 t CO <sub>2</sub> e
2. Total emissions liability to offset for this report	167 t CO <sub>2</sub> e
3. Net offset balance for this reporting period	-833 t CO <sub>2</sub> e
4. Total offsets to be forward purchased to offset the next reporting period	833 t CO <sub>2</sub> e
5. Total offsets required for this report	0 t CO <sub>2</sub> e

## Offsets summary

### Proof of cancellation of offset units

Offsets cancelled for Climate Active Carbon Neutral Certification										
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Eligible Quantity (tCO <sub>2</sub> -e)	Quantity used for previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period claim	Percentage of total (%)
Blinky Forest Carbon Project <sup>3</sup>	ACCUs	ANREU	5 May 2021	<u>3.778.000.186 – 3.778.001.185</u>  (A hyperlink is not available; instead evidence of the retired offsets has been provided to Climate Active)	2018/19	1,000	0	833	167	100%
<b>Total offsets retired this report and used in this report</b>									167	
<b>Total offsets retired this report and banked for future reports</b>								833		

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Australian Carbon Credit Units (ACCUs)	167	100%

<sup>3</sup> This project establishes permanent native forests through assisted regeneration from in-situ seed sources (including rootstock and lignotubers) on land that was cleared of vegetation and where regrowth was suppressed for at least 10 years prior to the project having commenced.

## APPENDIX A: ADDITIONAL INFORMATION

N/A

## APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location-based approach.

In line with our NGER reporting, we have applied a location-based approach to electricity in the LCA. The vast majority of emissions are coming from the raw materials (especially cement) used to make concrete. Concrete production makes up only 1-3% of the GHG emissions of premix concrete (mainly electricity and diesel use on-site) and a further breakdown of emission sources was considered trivial.

The carbon footprint of our products is based on EPDs, and hence the tables hereafter are not relevant.

### **Location-based method**

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

### **Market-based method**

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double counting.

# APPENDIX C: INSIDE EMISSIONS BOUNDARY

## Non-quantified emission sources

The following sources emissions have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant-non-quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
N/A				

## Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected (**no actual data**).
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**.

	No actual data	No projected data	Immaterial
N/A			

## APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

Relevance test					
Non-attributable emission	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.</i>
Capital Goods	No	No	No	Limited	No
Personnel	No	No	No	Limited	No





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