PUBLIC DISCLOSURE STATEMENT

BORAL CONSTRUCTION MATERIALS LTD

PRODUCT CERTIFICATION
FY2023–24

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Boral Construction Materials Ltd
REPORTING PERIOD	1 July 2023 – 30 June 2024 (arrears report)
DECLARATION	*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.*  Ali Nezhad Head of Sustainability and Innovation 29 April 2024

Australian Government
Department of Climate Change, Energy, the Environment and Water

Version 9.

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	2535 tCO_2-e
CARBON OFFSETS USED	100% ACCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Boral Construction Materials Ltd
TECHNICAL ASSESSMENT	Date 17 December 2024 Name: Rob Rouwette Organisation: Start2See Pty Ltd Next technical assessment due: 31 October 2027
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. CERTIFICATION INFORMATION

Description of product certification

As part of our commitment to sustainability, Boral (including Concrite – a wholly owned subsidiary of Boral) has obtained an opt-in Carbon Neutral product certification for its pre-mixed concrete products produced in Australia. This product certification aligns with the Boral Australia and Concrite Pre-Mix Concrete Environmental Product Declarations (EPDs). Released in 2021, 2022 and 2023, our range of EPDs captures a large number of product variations (i.e. mix designs) including some of our lower carbon, high performance pre-mixed concrete products such as Boral 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), Queensland (QLD), South Australia (SA), Tasmania (TAS), Victoria (VIC), Western Australia (WA) and the Northern Territory (NT), as well as Concrite's batch plants across NSW and the 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.

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

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

The responsible entity for this product certification is Boral Construction Materials Ltd, ABN 70 000 614 826.

This Public Disclosure Statement includes information for FY2024 reporting period.

Description of business

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.

Boral Concrete is a supplier to infrastructure, industrial, commercial and residential building projects combining technical expertise and on-site capability. Boral Concrete has over 220 pre-mix concrete plants around Australia 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®, Envirocrete® Plus 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. These products are captured within the scope of Boral's range of Pre-Mix Concrete EPDs and subsequently this carbon neutral certification.

Concrite is a wholly-owned subsidiary of Boral, joining in 2001. Concrite has 11 pre-mix concrete plants across Sydney, the Southern Highlands and ACT. Concrite supplies pre-mix concrete to all segments of the construction industry including infrastructure, social, commercial and residential construction. Concrite recognises that managing sustainability outcomes is vital for their business and meeting expectations of their customers. In recent years, they have increased investment in innovation and lower carbon concrete product range. Their lower carbon concrete range includes LC (Lower Carbon) Concrete, LCP (Lower Carbon Plus) Concrete, and LCHP (Lower Carbon High Performance) Concrete. These products are captured within the scope of Concrite's Pre-Mix Concrete EPDs and subsequently this carbon neutral certification.

Carbon neutral products are available to Boral and Concrite 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 agreed 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.

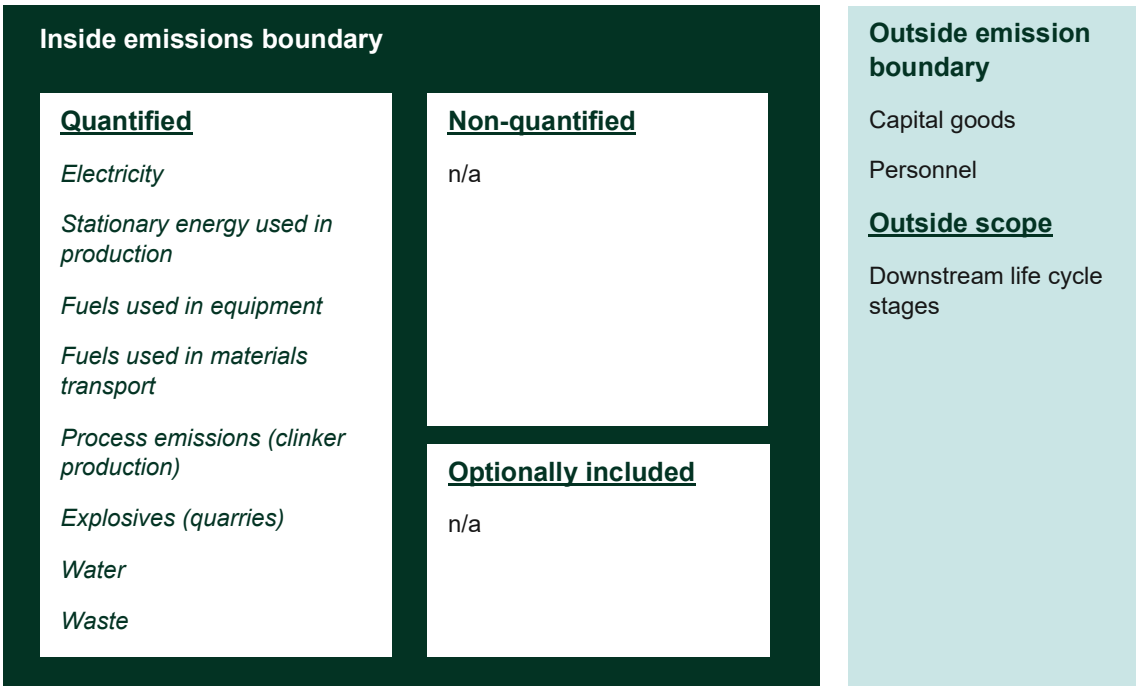
3. EMISSIONS BOUNDARY

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' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions 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.

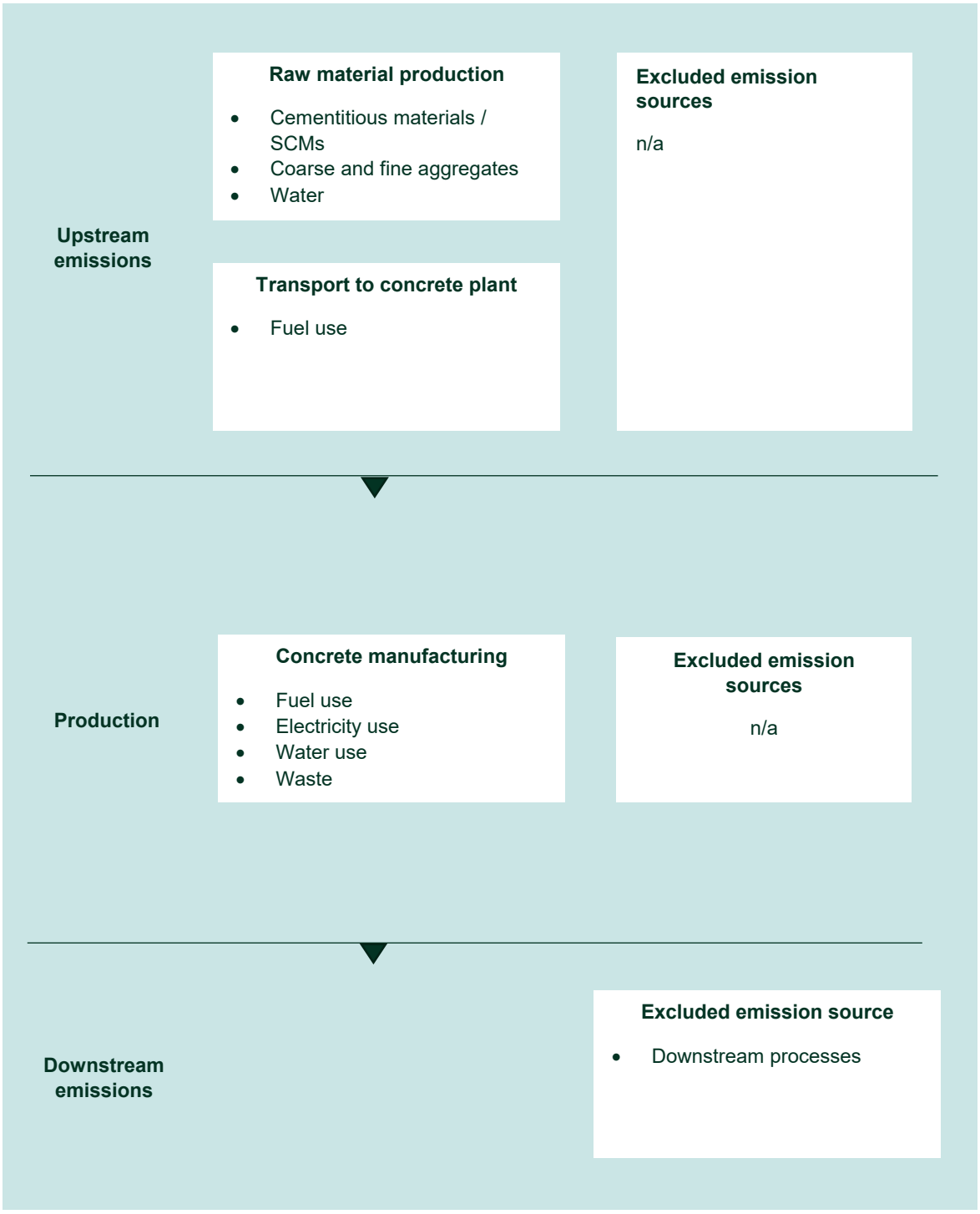


The contribution of capital goods (production equipment and infrastructure) and personnel is outside the scope of the LCA, in line with the Product Category Rules.[1]

[1] 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.

Product 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.[2]



[2] For example, see Figure 2 in: R Frischknecht et al 2019 IOP Conf. Ser.: Earth Environ. Sci. 323 012037

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Boral's sustainability focuses on five pillars: People, Environment, Markets, Assets and Financials (PEMAF). For each of these areas, we have identified the most material topics to shape our priorities and drive accountability and results.

Focus area	Headline statement	Material topics	Relevant Sustainable Development Goals
People	Our people are critical to our success. We are committed to building a safe, engaged, diverse and inclusive workplace, and creating a culture that supports our people to deliver their best. We are committed to our Life Saving Rules and provide direct employment of approximately 7,500 people and impact significantly more people by being a good employer.	• Our values, culture and engagement • Diversity and inclusion • Health, safety and wellbeing • Leadership and development of people • Workplace relations and human rights	
Environment	We follow our recently launched Environment Absolutes and are committed to reducing – and where possible eliminating – the environmental impacts of our operations. We are prioritising reducing our carbon emissions with the ambition to achieve net zero by 2050.	• Net zero ambition • Circular economy participation and development • Environmental stewardship • Climate resilience • Lower carbon cement and lower carbon concrete	
Markets	We are an iconic and trusted brand, known for helping our customers and partners achieve their goals. We are committed to improving the customer experience and our ability to deliver in full and on time. We focus on innovation to provide unique and more sustainable products and services.	• Sustainable products and services • Customer solutions and innovation • Go-to-market strategy • Customer relationships and service • Call-to-cash cycle • Brand equity • Nation building for over 75 years	
Assets	We have an unrivalled integrated network of prized strategic upstream and downstream assets. These include efficient operational sites and property assets for future growth. We leverage all these assets for immediate and longer-term value, while respecting and considering the communities around our sites.	• Fixed asset life cycles • Asset utilisation and Overall Equipment Effectiveness (OEE) • Optimisation of mobile fleet and Heavy Mobile Equipment (HME) assets • Focus on leveraging our 'prized' assets • Track record in building communities • Integrated networks	
Financials	We aim to deliver strong financial performance for shareholders, customers and employees. We also contribute significantly to the Australian economy and the development of critical infrastructure, housing and commercial property.	• Increased revenue and lower costs • Better cash conversion • Higher returns on funds employed (ROFE) • Higher EBIT • Financial returns to millions of investors	

Our ambition is to be a net zero company by 2050. We have established a detailed decarbonisation pathway based on five levers as summarised in the table below.

1 Energy	**Alternative kiln fuels:** Transition Berrima Cement's kiln fuel away from coal by increasing the thermal energy derived from alternative fuels to 60% and exploring hydrogen and renewable gas
	Renewable energy: Aim to transition to power from renewable sources
	Energy efficiency: Improve energy efficiency by 5% to 10%
2 Cementitious intensity	**Lower carbon concrete:** Increase the use of supplementary cementitious materials
	Kiln feed and cement plant optimisation: Implement processes to increase cement plant efficiency
3 Transport	**Optimise supply chain:** Optimise supply chain logistics and routes
	Renewable fuels: Explore and implement alternative fuels for Boral and contractor fleets, including electrification, biofuels, and hydrogen
4 Sourcing	**Lower carbon supply chain:** Prioritise lower CO_2-e intensity suppliers, including for imported clinker
5 CCUS[3]	**Mineralised carbon products:** Pilot and implement a mineralised carbon product stream
	Carbon capture use and storage: Explore and implement emerging CCUS technologies

Emissions reduction actions

Our ambition is to be a net zero company by 2050. We further set an ambitious short-term target to reduce our absolute Scope 1 and 2 emissions by 12-14%, from a FY19 base year, by FY25. This target was met in FY24, one year ahead of schedule, with approximately 14% reduction in Scope 1 and 2 emissions, compared to FY19, achieved.

The key contributors to the emissions reductions achieved include a significant decrease in thermal fuel and calcination emissions from our cement manufacturing operations, a reduction in Scope 2 emissions associated with electricity use and decrease in grid emission intensity, and a decline in emissions associated with liquid fuels. These factors together accounted for approximately 95% of the total emissions reductions achieved in FY24 compared to a FY19 base year.

The decrease in thermal fuel and process emissions are driven by Boral's significant investment in alternative fuel and kiln feed optimisation programs. In particular, in FY24, Boral successfully secured 28% of its cement kiln's thermal energy from waste-derived alternative fuels. Boral's alternative fuel program commenced in FY18 to transition away from coal as the primary source of Berrima cement kiln's thermal energy.

Further information on our lower carbon concrete products and our decarbonisation plans can be found on Boral’s website and Concrite’s website."

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e	**Emissions intensity of the functional unit**
Base year:	2020-21 (projected)	160	0.250 t CO_2e/m^3
Base year	2020-21 (True up)	167	0.227 t CO_2e/m^3
Year 1:	2021-22 (arrears)	67	0.208 t CO_2e/m^3
Year 2:	2022-23 (arrears)	62	0.270 t CO_2e/m^3
Year 3:	2023-24 (arrears)	2535	0.321 t CO2e/m3

Significant changes in emissions

The total emissions for the carbon neutral certified products increased significantly compared to the previous years. The emissions for the carbon neutral concrete depend directly on the volume and type of concrete that was sold under our opt-in program. In FY24, we sold more carbon neutral certified concrete compared to previous years.

Use of Climate Active carbon neutral products, services, buildings or precincts

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

Emissions summary

Stage / Attributable Process / Source	tCO_2-e*
Raw materials (cement, slag, fly ash, ZEP®, aggregates, admixtures water)	90-95%
Transport of raw materials to the concrete plant	5-10%
Concrete production process	1-3%

**The contribution of emissions sources is provided in percentages to indicate the varying contribution depending on concrete mix designs.*

No uplift in factors have been applied.

The total volume of carbon neutral concrete was supplied to one project in NSW.

To demonstrate commitment to carbon neutrality for FY25, Boral has purchased a significant quantity of offsets in advance.

Emissions intensity per functional unit	0.321 t CO_2e
Number of functional units to be offset	7891 m^3
Total emissions to be offset	2535 t CO_2e

6. CARBON OFFSETS

Eligible offsets retirement summary

Offsets retired for Climate Active certification

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	2535	100%

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (tCO_2-e)	Eligible quantity used for previous reporting periods	Eligible quantity banked for future reporting periods	Eligible quantity used for this reporting period	Percentage of total (%)
Yuin Station, Murchison HIR Aggregation	ACCUs	ANREU	28 June 2024	8,352,678,367 - 8,352,681,066	2022-23	n/a	2700	0	165	2535	100%
Blinkey Forest Carbon Project	ACCUs	ANREU	5 May 2021	3,778,000,186 – 3,778,001,185 (A hyperlink is not available; instead evidence of the retired offsets has been provided to Climate Active)	2018-19	n/a	1000	296	704	0	0%

Co-benefits

Not applicable

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A.

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.

Note: Concrete production makes up only 1-3% of the GHG emissions of pre-mix concrete (mainly electricity and diesel use on-site) and using a location-based or market-based approach won't materially affect the footprint of our products.

We have not used the Climate Active electricity calculator, as the footprint of our products is determined in our EPDs.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

There are no non-quantified emission sources within this product LCA.

Relevant non-quantified emission sources	Justification reason
Not applicable	Not applicable

Data management plan for non-quantified sources

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

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.

1. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.

2. **Influence** The responsible entity could influence emissions reduction from a particular source.

3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.

4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.

5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.

Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Capital goods	N	N	N	N	N	**Size:** At product level, capital goods emissions are negligible versus other emissions sources **Influence:** We have limited influence on the embodied emissions of capital goods. For existing plants, the capital goods were purchased in the past. For new plants, we can ask suppliers to report the emissions associated with the equipment, although this information is currently unavailable at the required level of accuracy where it could meaningfully influence our decision. The effect would be immaterial regardless. **Risk:** There are no relevant laws or regulations that apply to limit emissions specifically from this source, capital goods do not create supply chain risks, and it is unlikely to be of significant public interest. **Stakeholders:** Key stakeholders, including the public, are unlikely to consider capital goods a relevant source of emissions for our concrete products. **Outsourcing:** Not applicable for capital goods-related emissions
Personnel	N	N	N	N	N	**Size:** At product level, personnel emissions are negligible versus other emissions sources **Influence:** We have very limited influence on personnel emissions. Preferred modes of transport are dependent on several factors, including ones that are outside of our control (e.g. where staff live). **Risk:** There are no relevant laws or regulations that apply to limit emissions specifically from this source, personnel emissions do not create supply chain risks, and it is unlikely to be of significant public interest. **Stakeholders:** Key stakeholders, including the public, are unlikely to consider personnel a relevant source of emissions for our concrete products. **Outsourcing:** Not applicable for personnel-related emissions

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