

PUBLIC DISCLOSURE STATEMENT

BLUESCOPE STEEL LIMITED

XLERPLATE® STEEL FY2023–24 (TRUE-UP)

Climate Active Public Disclosure Statement







NAME OF CERTIFIED ENTITY	BlueScope Steel Limited
REPORTING PERIOD	Financial year: 1 July 2023 – 30 June 2024 True-up
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. Philipse Statement Standard.
	Philippa Stone Sustainability Manager, Australian Steel Markets 17 February 2025



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Version 9.

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	0 tCO ₂ -e (no opt-in during the year)
CARBON OFFSETS USED	100% ACCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: BlueScope
TECHNICAL ASSESSMENT	Date: 9 February 2024 Name: Rob Rouwette Organisation: Start2see Pty Ltd Next technical assessment due: October 2026
THIRD PARTY VALIDATION	Not required – EPD Pathway used

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2. CERTIFICATION INFORMATION

Description of product certification

This opt-in carbon neutral certification is for XLERPLATE® steel, manufactured by BlueScope in Australia, which have been grouped based on their carbon and alloy content. The different steel grade groups covered are Low carbon steel¹, Medium carbon steel, and Alloyed steel with thickness between 5mm and 150mm (depending on product).

The carbon account is based on the Environmental Product Declaration (EPD) for XLERPLATE® steel v2.0 (published 27 November 2020). BlueScope's EPDs are expressions of our strong commitment to environmental transparency and reflect our focus on product stewardship and broader commitment to sustainability.

The XLERPLATE® steel EPD is published under the <u>EPD Australasia Programme</u> and is in accordance with ISO 14025 and EN 15804+A2. The EPD is available on the <u>EPD Australasia website</u> or <u>steel.com.au</u>.

The EPD covers cradle-to-grave life cycle stages, including cradle-to-gate (modules A1-A3), plus rollforming and end-of-life (modules C1-C4). Modules A4-A5 (construction process) and B1-B7 (use) have not been included due to the inability to predict how the material will be used following manufacture.

The carbon inventory for XLERPLATE® steel has been calculated based on the global warming potential (GWP-total) results of the EPD.

No product has been sold as part of the opt-in carbon neutral certification program between 1 July 2023 and 30 June 2024. There was limited time between the initial certification and the end of the reporting period to make this offer available to customers, and no orders were received by the end of FY24.

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 $^{^{1}}$ The terms 'low carbon steel' and 'medium carbon steel' refer to the carbon content in the metal alloy and not to the carbon dioxide (CO₂) emissions associated with the product.

Description of business

XLERPLATE® steel is manufactured by BlueScope. In Australia, BlueScope specialises in flat steel products, including slab, hot rolled coil, cold rolled coil, plate and value-added metallic coated and painted steel solutions.

Produced to the Australian Standards AS/NZS 3678:2016 (certified by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS)), and AS 1548-2008, the XLERPLATE® steel hot rolled plate range provides the flexibility to select from our standard range or customised grades, width, thickness and length to suit specific design criteria.

XLERPLATE® steel products form part of the following standard classifications: ANZSIC 2711 – Iron and Steel Manufacturing and UN CPC 41211 – Flat-rolled products of non alloy steel, not further worked than hot rolled, of a width of 600mm or more.

XLERPLATE[®] steel is manufactured by BlueScope in Australia, at facilities which are certified to ISO 14001. The steel in XLERPLATE[®] steel is manufactured at the Port Kembla Steelworks, a ResponsibleSteel™ certified site.

The XLERPLATE® steel carbon neutral certification:

- Is an opt-in programme. Carbon neutral products are available to BlueScope customers on an opt-in basis. The total carbon inventory to be offset will be assessed annually based on the quantity of carbon neutral certified product sold in the Financial Year.
- The functional unit is 1 kilogram of XLERPLATE® steel.
- The scope of the certification is cradle-to-grave. It includes emissions from cradle-to-gate (modules A1-A3), plus rollforming and end-of-life (modules C1-C4). Modules A4-A5 (construction process) and B1-B7 (use) have not been included due to the inability to predict how the material will be used following manufacture. See Figure 1.

XLERPLATE® steel Manufacturing in Australia A2 Transport Sea, road, rail **Raw Materials** Iron ore, coal, fluxes, scrap Аз Manufacturing From cokemaking to Plate Mill Recycling BlueScope Steelworks at Port Kembla Waste Processing Use phase of the product Modules A4-A5 (construction) and B1-B7 (use) outside of scope of EPD Transport to waste processing C4 Disposal Deconstruction, demolition

Figure 1 – XLERPLATE® steel manufacturing process and life cycle stages

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. Inputs knowingly excluded from the inventory are packaging materials for minor inputs such as lubricants, greases, etc., which are used in very small quantities. These exclusions are not expected to have significant impact. Further detail is available in 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.

Inside emissions boundary

Quantified

Raw materials: iron ore, coking coal, scrap, packaging materials, etc.

Manufacturing operations (incl. downstream rollforming): electricity, fuels, lubricating oils and greases, water, wastewater treatment, waste disposal, air emissions, etc.

Transport: raw materials to BlueScope facilities, between BlueScope facilities and from BlueScope to distributors.

End-of-life: demolition and disposal of product waste from installation and at the end of its useful life.

Non-quantified

N/A

Optionally included

N/A

Outside emission boundary

Non-attributable

Personnel

Capital Goods

Outside Scope

Packaging materials for minor inputs, such as lubricants, greases, etc.

Construction process

Product use

Product / Service process diagram

Raw Materials

Upstream emissions

- Iron ore
- Coking coal
- Fluxes (limestone and dolomite)
- Steel scrap

Transport

Raw materials to BlueScope site

Excluded emission sources

Packaging materials for minor inputs, such as lubricants, greases, etc.

Steelmaking

- Coke making: Coke washing, handling, coke ovens and gas processing
- Ironmaking: sinter plant, blast furnace.
- Steelmaking: basic oxygen steelmaking (BOS) incl. use of scrap
- Slab making from liquid steel
- Hot rolling into steel plate at the Plate

Excluded emission sources

N/A

Production

mill

Transport

Transport of product to fabricators and distribution customers

Downstream emissions

End-of-life

Removal and disposal of product waste from installation and at end-oflife.

Excluded emission sources

Construction process (incl. transport from fabricator to site, construction/ installation)

Product use (incl. product maintenance, repair, replacement, refurbishment)

Manufacturing Process

The steel in XLERPLATE® steel is made from raw and recycled materials using an 'integrated steelmaking' method. This involves the use of iron ore, coal, steel scrap, fluxes (limestone and dolomite) and alloying materials to produce steel slab via the major processes of sintering, cokemaking, Blast Furnace/Basic Oxygen Furnace (BF-BOF) steelmaking and continuous slab casting, prior to hot rolling into the final XLERPLATE® steel plate product.

XLERPLATE® steel is manufactured at Port Kembla, NSW. The manufacturing facilities are accredited to both ISO 9001 (Quality Systems) and ISO 14001 (Environmental Management Systems). See *Figure 1 - XLERPLATE®* steel manufacturing process and life cycle stages.

Downstream processing

XLERPLATE® steel is supplied by BlueScope to downstream processors. Categorised into structural, boiler and pressure vessels and analysis products, XLERPLATE® steel is typically used to manufacture structural sections for buildings, bridges and stadiums and for other heavy industrial applications such as wind towers, pipelines and storage tanks. The finished products are delivered to construction sites for installation.

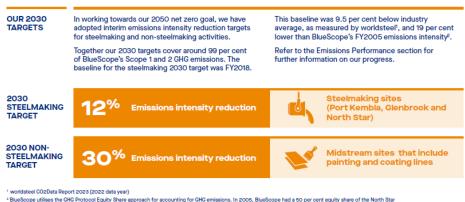
End of life

The emissions boundary for XLERPLATE® steel includes the end-of-life stages i.e., de-construction, demolition, transport, waste processing, and disposal.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

BlueScope understands the critical importance of taking action on climate change to our business and our stakeholders. It is crucial to our long-term success, and we have set medium-term targets and long-term goal to reduce GHG emissions intensity and absolute emissions, respectively, across our global operations.



BlueScope utilises the GHG Protocol Equity Share approach for accounting for GHG emissions. In 2005, BlueScope had a 50 per cent equity share of the North Star steelmaking facility with Cargill. In October 2015 BlueScope acquired the remaining 50 per cent of North Star.

Our goal is to pursue net zero Scope 1 and 2 GHG emissions across our global business by 2050 and is contingent on five key enablers:



Noting the complexity and uncertainty of transitioning the hard-to-abate steelmaking industry, we will continue to assess the appropriateness of our 2050 net zero goal, including its scope and timing, against developments across these enablers.

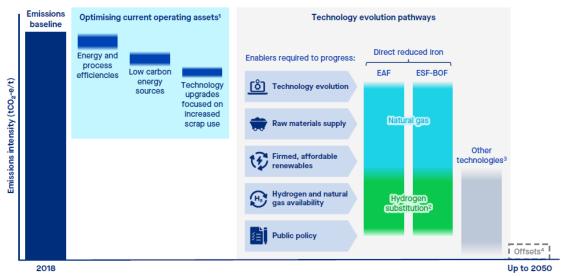
Our priority is direct abatement through initiatives to optimise existing assets, as well as pursuing new technology pathways. While we do not intend to rely on offsets as a primary means of decarbonisation, we recognise the potential contribution of offsets to cover future liabilities beyond our ability to directly abate, residual emissions and to meet customer demand ahead of feasible decarbonisation

BlueScope's Port Kembla Steelworks indicative steelmaking decarbonisation pathway

In Australia, BlueScope manufactures steel at our Port Kembla Steelworks in NSW. Port Kembla Steelworks is placed in the 'top 15% Blast Furnace-Basic Oxygen Furnace performers' (BF-BOF) for the emission intensity of blast furnace-based operations2. Since FY2013, the site's emission intensity has declined by 16 per cent to well below the global BF-BOF average of 2.22tCO2/tonne raw steel3. This is predominantly driven by a significant increase in scrap usage rates in the basic oxygen furnace, as well as higher operational volumes and improved process energy efficiencies.

At Port Kembla Steelworks, the principal raw materials for iron and steelmaking via the BF-BOF method are iron ore from the Pilbara and metallurgical coal from the Illawarra escarpment. The Steelworks' location provides excellent access to Australia's high quality metallurgical coal and a port for shipping in Pilbara iron ores, which help maximise the productivity of the blast furnace operations.

Across BlueScope, our focus on optimising assets and reusing materials, heat and energy wherever possible has led to reduced emission intensity from iron and steelmaking over the years. Currently, we have a variety of projects underway and others in the pipeline aimed at achieving further efficiency gains.



^{1.} Optimising current assets involves working within currently available technology options to improve the efficiency of assets and processes, including upgrading technology where there are supportive enablers. This continues beyond 2030 until such time as it is feasible to convert to lower emissions DRI technology. Continuous improvement principles will apply to future production processes.

Figure 2 - Port Kembla's indicative decarbonisation pathway (Source: BlueScope Climate Action Report 2024)

For more information visit www.bluescope.com/sustainable-steel/climate-action.

Contingent on commercial supply of hydrogen from renewable sources. Other technologies could include electrolysis, CCS and biocarbon etc.

While we do not intend to rely on offsets as a primary means of decarbonisation, we retain the option to use them to meet our 2050 net zero goal where direct abatement is not technically or commercially feasible. Such decisions will be reviewed at the BlueScope Group level and are included in this site level indicative decarbonisation pathway to indicate that offsets may have a role to play.

² worldsteel CO2 Data Report 2023 (2022 data year) has the Port Kembla Steelworks site in the lowest 15th percentile for emission intensity of BF-BOF steel plants. Note that this data is limited to those iron and steelmakers who voluntarily report on emissions data with worldsteel (56 BF-BOF sites in 2022 representing 17 per cent of global BOF steel production and 53 per cent of global BOF steel production excluding China. No Chinese steel plants report CO2 data to worldsteel).

³ Based on steelmakers who reported to worldsteel in 2023 (with 2022 data) where co-product production is applied to the BF-BOF routes considered.

Emissions reduction actions

The following emission reduction activities are specific to BlueScope's Australian steelmaking and non-steelmaking operations.

Energy and process efficiencies

- The improved humidity injection control implemented in the blast furnace in FY2022 which has reduced coal use and associated emissions by approximately 70,000 tonnes of CO2-e per year⁴.
- Various projects to use process gases more efficiently, such as installing a Waste Gas Heat Recovery (WGHR) system on No.6 Blast Furnace and a new more efficient plate mill furnace (expected to be operational by mid-2027) to lower indigenous process gas consumption. The process gases liberated by these initiatives will enable more onsite electricity generation and reduce external electricity consumption.
- Additional electricity generation from a larger Top Gas Recovery Turbine (TRT) to be installed on No.6 Blast Furnace, which will use pressure from top gases to generate electricity and reduce external electricity consumption.

Low carbon energy sources

• In 2023, the Australian Renewable Energy Agency (ARENA) co-founded a study into prioritising options for decarbonisation pathways at Port Kembla, highlighting biocarbon (also known as biochar) as a promising short to medium-term option in ironmaking. We successfully completed trials to test biocarbon as a partial replacement for pulverised coal injection in the blast furnace. However, there are challenges in sourcing cost-effective, sustainably produced biocarbon⁵ in the quantities needed for commercial adoption. We are working with several prospective sustainable biocarbon suppliers to explore the potential for an industrial-scale supply chain in Australia.

Increased scrap use

- Increasing the proportion of scrap used in the BOF helps reduce emission intensity. Through
 optimising the inherent chemical and heat energy within the BOF process, capital upgrades and
 operating practices have allowed significant increase in scrap additions since 2018. However, the
 proportion of scrap used in the BOF is also dependent on economic factors and may fluctuate
 from time to time.
- It is important to note that many of these projects remain subject to technical and economic feasibility assessment and require supportive government policies. We will continue to work to optimise the Port Kembla operations beyond 2030 until it is commercially and technically viable to transition to lower emissions iron and steelmaking technologies.

FY24 performance

Globally, BlueScope achieved a 12.0 per cent reduction in aggregated steelmaking emission intensity against its FY2018 baseline, in line with its 2030 target level. This was primarily driven by the ramp-up of our North Star expansion in the US, which contributed to an increased proportion of BlueScope's production volumes coming from North Star's low emissions process. Further incremental operating and process efficiencies at Glenbrook in NZ and Port Kembla Steelworks also contributed to this outcome.

⁴ Based on BlueScope analysis which assumes an annual coke production average of 7,500 tonnes per day, equating to a saving of approximately 19,000 tonnes of coke per year.

⁵ This includes sourcing biocarbon in line with BlueScope's responsible sourcing guidelines, as well as ensuring appropriate treatment and capture of emissions from such sources.

Emission intensity performance can fluctuate year-on-year due to a range of factors including production volumes, raw materials quality and mix.

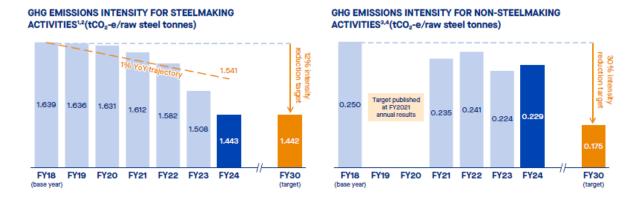


Figure 3 – BlueScope's global GHG performance against 2030 targets (Source: BlueScope Climate Action Report 2024)

5.EMISSIONS SUMMARY

Emissions over time.

Emissions since base year						
		Total tCO ₂ -e	Emissions intensity of the functional unit			
Base year:	FY2018–19	N/A				
Year 1:	FY2023–24 (1 July 2023 to 30 June 2024)	0 (nil)	XLERPLATE® steel emissions intensity: • Low carbon steel – 2.63 kg CO ₂ -e/kg • Medium carbon steel – 2.68kg CO ₂ -e/kg • Alloyed steel – 2.78 kg CO ₂ -e/kg			

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

N/A

Emissions summary

Life cycle stage	tCO ₂ -e
Manufacturing (A1-A3) Includes raw materials, transport of raw materials to site and manufacturing incl. rollforming.	0 (nil)
End-of-Life (C1-C4) Includes deconstruction/demolition, transport to waste processing site, waste processing and disposal.	0 (nil)

In preparation for carbon neutral certification, BlueScope purchased offsets that covered 28 tonnes of XLERPLATE® steel. However, at the end of the FY2023-24 no XLERPLATE® steelproducts have been sold as part of the opt-in program.

Product / Service off	set liability
Emissions intensity per functional unit	XLERPLATE® steel: • Low carbon steel – 2.63 kg CO ₂ -e/kg • Medium carbon steel – 2.68 kg CO ₂ -e/kg • Alloyed steel – 2.78 kg CO ₂ -e/kg
Emissions intensity per functional unit including uplift factors	N/A
Number of functional units covered by the certification	0 (nil) tonnes of XLERPLATE® steel
Total emissions (tCO ₂ -e) to be offset	0 (nil) tCO ₂ -e (no product sold as part of the opt-in program in FY23-24)

6.CARBON OFFSETS

Eligible offsets retirement summary

Offsets retired for Climate Active certification

Type of offset unit	Quantity used for this reporting period	Percentage of total units used
Australian Carbon Credit Units (ACCUs)	0 (nil) tCO ₂ -e	0%

Proj	ject name	Type of offset unit	Registry	Date retired	Serial number	Vintage	Total quantity retired	Quantity used in previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period	Percentage of total used this reporting period
	oidary Forest ration Project	ACCUs	ANREU	11 Mar 2024	8,337,288,222 - 8,337,288,249	2021- 22	28	-	28	0	0%

Co-benefits

BlueScope's priority is direct abatement through initiatives to optimise existing assets, as well as pursuing new technology pathways. While we do not intend to rely on offsets as a primary means of decarbonisation, we recognise the potential contribution of offsets to cover future liabilities beyond our ability to directly abate, residual emissions and to meet customer demand ahead of feasible decarbonisation.

BlueScope has developed a group-wide carbon offsets strategy and internal governance framework that apply to both compliance and voluntary offsets use, and is investigating opportunities to procure carbon offsets to meet potential lower carbon product demands from customers.

Moombidary Forest Regeneration Project - Queensland, Australian Carbon Credit Unit (ACCU):

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. The project is reducing the impact of agricultural practices on regenerating trees, including by investing in new infrastructure and establishing rotational grazing practices.

The Traditional Custodians have formed a unique collaboration with the property owner and Climate Friendly to partner on this native forest regeneration carbon farming project on Moombidary Station.

The carbon farming project has helped the Traditional Owners to regain access and connection to their traditional country, providing options to return to cultural management practices. As a result of this project an area will be set aside for the Traditional Owners to set up and maintain a bush tucker garden.

The surveying and mapping of cultural sites is also facilitated by the project. The location of such sites will be recorded in order to protect them and help manage Traditional Owner knowledge.

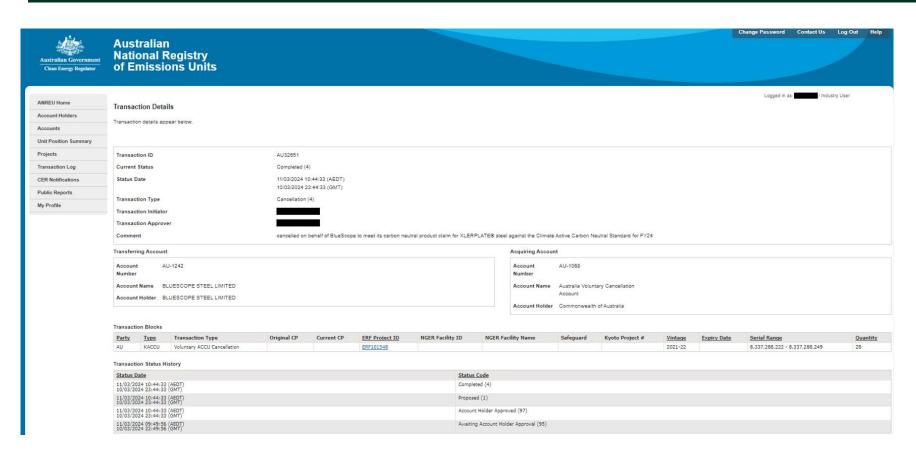
The project also offers some local employment opportunities, as representatives from the Budjiti and Kullilli Bulloo River Aboriginal Corporations are hired and trained to assist in annual field work and monitoring of regenerating forest across the carbon project.

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION



APPENDIX B: ELECTRICITY SUMMARY

N/A

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources 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 <u>one</u> 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. <u>Data unavailable</u> Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
- Maintenance Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
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**).

Emissions Source	No actual data	No projected data	Immaterial
Packaging materials for minor inputs, such as lubricants, greases, etc., which are used in very small quantities.	No	No	Yes
Construction process, incl. transport to construction site, installation.	Yes	No	No
Product use, incl. maintenance, repair and/or replacement.	Yes	No	No

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.

- <u>Size</u> The emissions from a particular source are likely to be large relative to other attributable emissions.
- Influence The responsible entity could influence emissions reduction from a particular source.
- <u>Risk</u> 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.
- 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
Personnel	N	N	N	N	N	Size: The emissions source is not large compared to other attributable emissions. Influence: The potential influence of the emissions from this source is neglectable compared to the product. Risk: The source does 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 this a relevant source of emissions for the product. Outsourcing: Not Applicable
Capital Goods	N	N	N	N	N	Size: The emissions source is not large compared to other attributable emissions. Influence: Not applicable to the EPD pathway. Risk: The source is unlikely to be of significant public interest. Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for the product. Outsourcing: Not Applicable



