



PUBLIC DISCLOSURE STATEMENT

BLUESCOPE STEEL LIMITED

**WELDED BEAMS AND COLUMNS
FY2023–24 (PROJECTED)**

Australian Government

Climate Active Public Disclosure Statement



NAME OF CERTIFIED ENTITY	BlueScope Steel Limited
REPORTING PERIOD	Financial year: 1 July 2023 – 30 June 2024 Projected
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><i>Philippa Stone</i></p> <hr/> <p>Philippa Stone Sustainability Manager, Australian Steel Markets 11 March 2024</p>



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

Public Disclosure Statement documents are prepared by the submitting organisation. The material in Public Disclosure Statement documents represents the views of the organisation and do not necessarily reflect the views of the Commonwealth. The Commonwealth does not guarantee the accuracy of the contents of the Public Disclosure Statement documents and disclaims liability for any loss arising from the use of the document for any purpose.

Version: August 2023

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	29 tCO ₂ -e
THE OFFSETS USED	100% ACCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: BlueScope
TECHNICAL ASSESSMENT	Date: 09 February 2024 Name: Rob Rouwette Organisation: Start2see Pty Ltd Next technical assessment due: October 2026
THIRD PARTY VALIDATION	Not required – EPD Pathway used

Contents

1. Certification summary.....	3
2. Carbon neutral information.....	4
3. Emissions boundary.....	6
4. Emissions reductions	10
5. Emissions summary.....	13
6. Carbon offsets.....	14
7. Renewable Energy Certificate (REC) summary.....	17
Appendix A: Additional information	18
Appendix B: Electricity summary.....	19
Appendix C: Inside emissions boundary	20
Appendix D: Outside emission boundary	21

2. CARBON NEUTRAL INFORMATION

Description of certification

This opt-in carbon neutral certification covers Welded Beams and Columns, manufactured by BlueScope in Australia with plate thickness between 10mm-40mm. Welded beams and columns are structural steel sections comprising a web and two flanges that have been joined by a deep penetration fillet weld.

The carbon account is based on the Environmental Product Declaration (EPD) for Welded Beams and Columns 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 Welded Beams and Columns EPD is published under the [EPD Australasia Programme](#) and is aligned with ISO 14025 and EN 15804+A2. The EPD is available on the [EPD Australasia website](#) or [steel.com.au](#).

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 Welded Beams and Columns has been calculated based on the global warming potential (GWP-total) results of the EPD and the projected tonnes of opt-in product to be sold between 1 July 2023 and 30 June 2024.

Product/Service description

Welded Beams and Columns are 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.

Welded beams and columns enable optimised, high-performance structures. Their dimensional flexibility affords the designer the freedom to create the best design to suit client needs.

Produced to the Australian Standard AS/NZS 3679.2 and certified by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS), the product range provides the flexibility to select from our standard range or customised grades, width, thickness and length to suit your specific design criteria.

Welded beams and columns form part of the following standard classifications: ANZSIC 2741 – Structural Steel Fabricating and UN CPC 41252 – Sheet piling of iron or steel and welded angles, shapes and sections of iron or steel.

Welded Beams and Columns are manufactured by BlueScope in Australia, at facilities which are certified to ISO 14001. The steel in Welded Beams and Columns is manufactured at the Port Kembla Steelworks, a [ResponsibleSteel™ certified site](#).

The Welded Beams and Columns 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 Welded Beams and Columns;
- 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.

Welded Beams and Columns Manufacturing in Australia

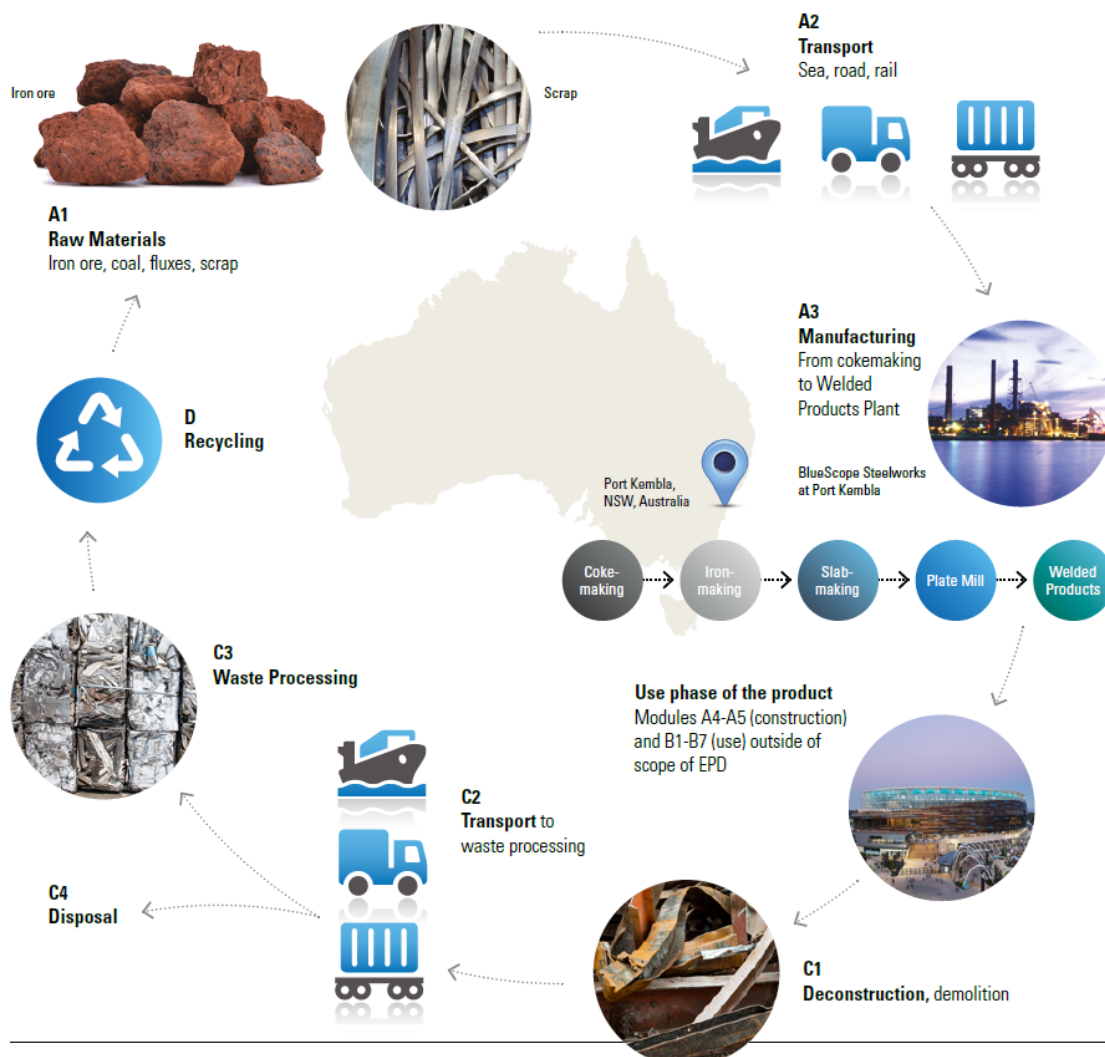


Figure 1 – Welded Beams and Columns manufacturing process and life cycle stages

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

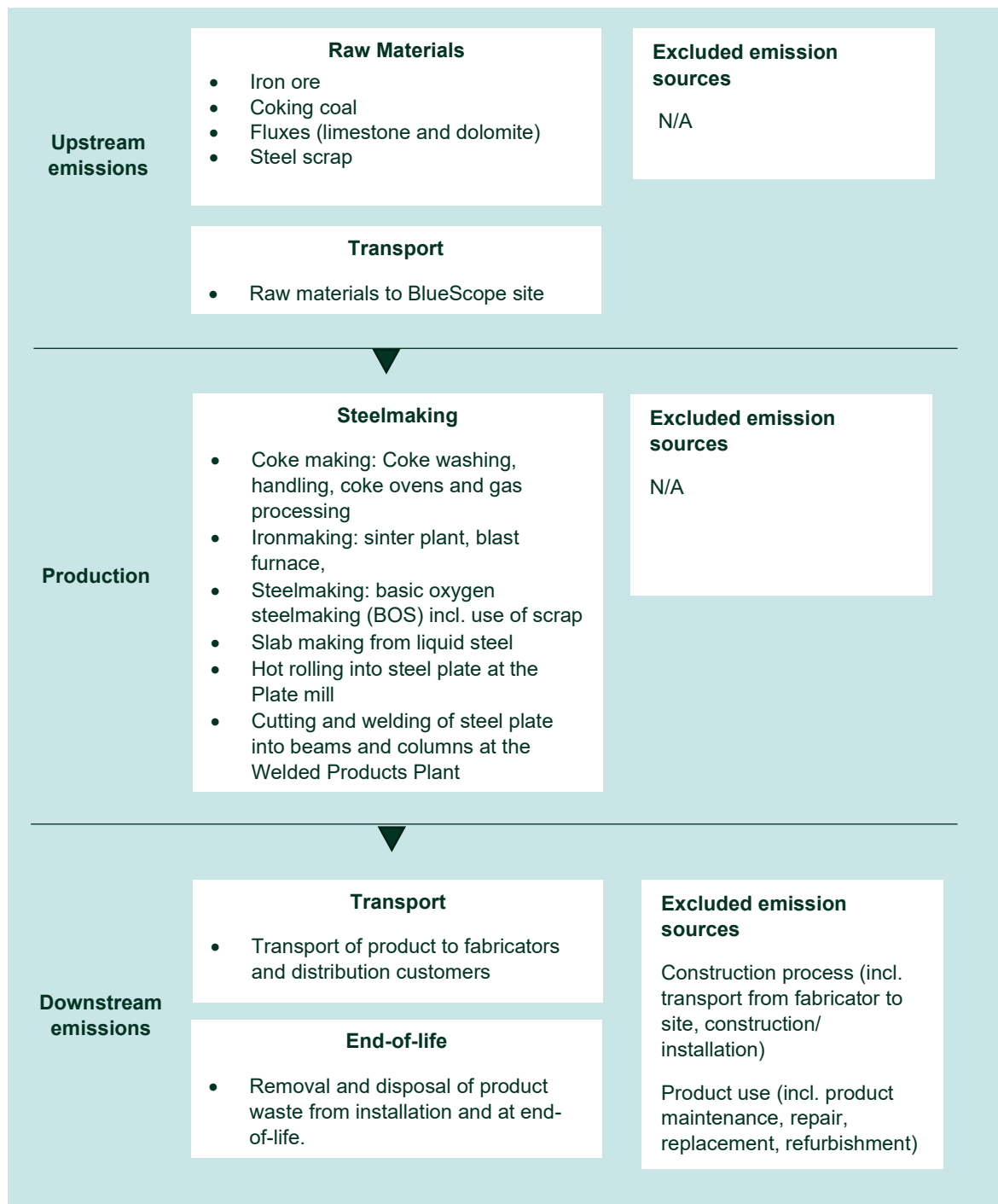
Capital Goods

Outside Scope

Construction process

Product use

Product/service process diagram



Manufacturing Process

The steel in Welded Beams and Columns 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 steel plate. The plate is transported to the Welded Products Plant where it is cut and welded to order into beams and columns.

Steel welded beams and columns are manufactured at Unanderra, NSW, from steel made by BlueScope at nearby Port Kembla Steelworks. The manufacturing facilities are accredited to both ISO 9001 (Quality Systems) and ISO 14001 (Environmental Management Systems). See *Figure 1 - Welded Beams and Columns manufacturing process and life cycle stages*.

Downstream processing

Welded Beams and Columns is supplied by BlueScope to downstream processors. Welded Beams and Columns are typically used for the heavier end of the engineering construction, buildings, mining infrastructure and transport market in applications such as office buildings, shopping centres, stadiums, car parks and bridges.

End of life

The emissions boundary for Welded Beams and Columns includes the end-of-life stages i.e., deconstruction, demolition, transport, waste processing, and disposal.

4.EMISSIONS REDUCTIONS

Emissions reduction strategy

At BlueScope, we understand the critical need to take action on climate and its importance to our business, our customers and communities.

We're committed to actively addressing climate change and investing in greenhouse gas (GHG) emissions reduction to transform BlueScope for long term success. In the near to mid-term, we're optimising current operating assets across our portfolio. For the longer term, we're exploring and collaborating to pursue emerging and breakthrough technologies to work towards our 2050 net zero goal. We've allocated \$150 million over five years starting FY22 to fund our climate-related technology plan.

Goal and targets

- Driving towards a net zero GHG emissions goal by 2050
- Progress targets established for 2030[^] (baseline set at 2018 levels)

[^]Applies to our Scope 1 and 2 emissions, relative to a 2018 baseline, across our midstream or non-steelmaking activities.

12%

**emissions intensity
reduction for steelmaking**

30%

**emissions intensity
reduction for non-
steelmaking^{^^}**

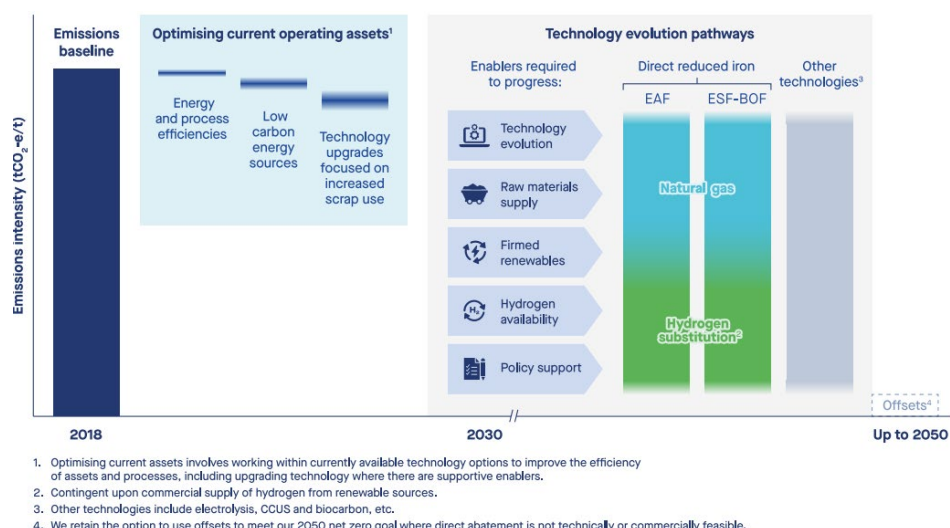
^{^^} The non-steelmaking target applies to our midstream activities that include our cold rolled, metal coating and painting lines and long and hollow products. It excludes our downstream activities.

Our decarbonisation pathway outlines the steps we plan to take to meet our 2030 GHG targets and net zero 2050 goal. We're continuing to optimise current operating assets across our footprint, including energy and process efficiencies across our steel making assets, low carbon energy sources and increased scrap use. We're also investigating accelerated technology developments in natural gas Direct Reduced Iron (DRI) as a transitional pathway to using green hydrogen to produce lower emissions steel.

We acknowledge that achieving our 2050 net zero goal is highly dependent on a range of key enablers shared across multiple sectors and stakeholders.



Our indicative decarbonisation pathway (below) provides the framework for our emissions reduction activities, as we continue to explore relevant process routes and understand how they might apply to our operations. Our actions depend on how technologies, enabling infrastructure and policy evolve.



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

Emissions reduction actions

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

Operational efficiency

- At Port Kembla, we are progressing projects to re-use process gases to further reduce externally sourced energy through the installation of equipment such as a top gas recovery turbine (TRT), waste gas heat recovery (WGHR) and high efficiency burners in stoves.
- BlueScope has developed a carbon digital twin model to assist the evaluation of the GHG abatement potential of prospective plant modifications, projects and technologies on site. This model forecasts expected gas and energy flows under different operational scenarios, optimising process efficiencies to enable increased scrap melting capability at the Basic Oxygen Furnace and help site engineers to optimise operations.

Iron and steelmaking

- A new blast furnace humidity control process at the Port Kembla Steelworks has resulted in reduced consumption of coking coal and improved resource efficiency.
- Trials have been completed at the Port Kembla Steelworks on the potential use of biocarbon to replace pulverised coal injection (PCI) into the blast furnace. There have been some positive initial results, replacing up to 30 per cent of PCI during the trial with no identified process or quality impacts.
- In the past three years (between FY19 and FY22) we have increased the proportion of scrap used in the steelmaking process from approximately 21.5% to 25%. We are currently investigating options to achieve approximately 30%.

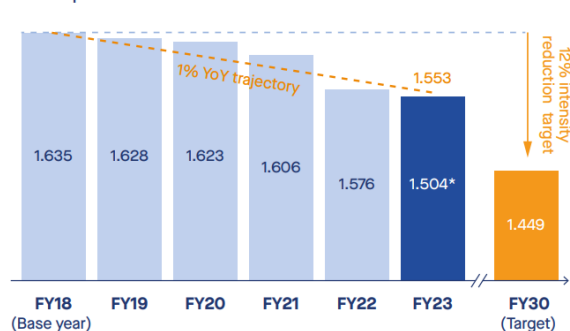
Non-steelmaking

- Non-steelmaking emissions reductions are being driven by multiple energy efficiency projects, including paint oven upgrades in Australia.
- Our non-steelmaking facilities are also examining the potential for further electrification of midstream processes combined with higher renewable energy use. We have multiple solar projects underway across our operations in Australian Steel Products.

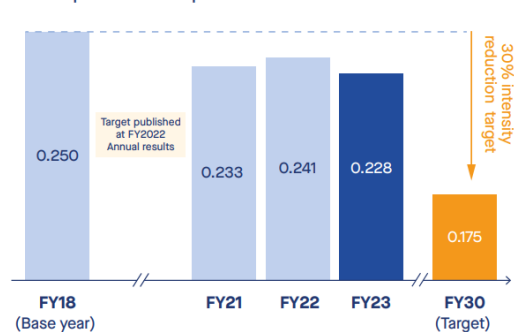
FY23 performance

As at end of FY23, BlueScope's global steelmaking performance is tracking ahead of our 2030 steelmaking target, with an aggregate 8.0 per cent reduction in GHG emissions intensity against our FY2018 baseline ¹. The improved emissions performance has been largely driven by process and energy efficiency improvements across steelmaking sites including increased scrap rates, and a new blast furnace humidity control process at the Port Kembla Steelworks that has reduced coke consumption.

GHG EMISSIONS INTENSITY FOR STEELMAKING ACTIVITIES
tCO₂-e per tonne raw steel



GHG EMISSIONS INTENSITY FOR NON-STEELMAKING ACTIVITIES
tCO₂-e per tonne despatched steel



¹ FY2018 is the baseline year for BlueScope's steelmaking target of a 12% reduction in greenhouse gas (GHG) emissions intensity by 2030. This target translates to a target of 1% year-on-year emissions intensity reduction (from the 2018 baseline) across BlueScope's global steelmaking operations.

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	Welded Beams and Columns emissions intensity: • 2.90 kgCO ₂ -e/kg
Year 1:	FY2023–24 (1 July 2023 to 30 June 2024)	29	

Use of Climate Active carbon neutral products and services

N/A

Emissions summary

Stage	tCO ₂ -e
Manufacturing (A1-A3) Includes raw materials, transport of raw materials to site and manufacturing incl. rollforming.	28.4
End-of-Life (C1-C4) Includes deconstruction/demolition, transport to waste processing site, waste processing and disposal.	0.6

Emissions intensity per functional unit	2.90 kgCO ₂ -e/kg
Number of functional units to be offset	10 tonnes of Welded beams and columns
Total emissions to be offset	29 tCO ₂ -e

We currently do not have a clear projection of how much carbon neutral product we will sell in the remainder of FY24. To show commitment to our carbon neutral certification, we have purchased offsets that cover 10 tonnes of Welded Beams and Columns.

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken a forward offsetting approach based on the projected tonnes of opt-in product to be sold between 1 July 2023 and 30 June 2024. The total emission to offset is 29 tCO₂-e. The total number of eligible offsets used in this report is 29. Of the total eligible offsets used, no offsets were previously banked and 29 tCO₂-e were newly purchased and retired.

Co-benefits

For BlueScope, direct abatement of GHG emissions is our primary course of action, however we recognise that carbon offsets may need to play a complementary role in meeting customer expectations for low embodied emission products, and our net zero 2050 goal, where direct abatement is not technically or commercially feasible.

BlueScope has developed offset principles, to ensure that any offset procurement would meet our business principles and stakeholder expectations, and that it complements direct abatement actions. For further details, refer to our principles for offsets in our [Climate Action Report 2021, p. 52](#).

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.

Eligible offsets retirement summary

Offsets retired for Climate Active carbon neutral certification											
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 (%)
Moombidary Forest Regeneration Project	ACCUs	ANREU	11 Mar 2024	8,337,288,193 - 8,337,288,221	2021-22	-	29	0	0	29	100%
Total offsets retired this report and used in this report										29	
Total offsets retired this report and banked for future reports									0		

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	29 tCO ₂ -e	100%

- ANREU Home
- Account Holders
- Accounts
- Unit Position Summary
- Projects
- Transaction Log
- CER Notifications
- Public Reports
- My Profile

Transaction Details

Transaction details appear below.

Transaction ID	AU32650
Current Status	Completed (4)
Status Date	11/03/2024 10:45:08 (AEDT) 10/03/2024 23:45:08 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	[REDACTED]
Transaction Approver	[REDACTED]
Comment	cancelled on behalf of BlueScope to meet its carbon neutral product claim for Welded beams and columns against the Climate Active Carbon Neutral Standard for FY24

Transferring Account

Account Number	AU-1242
Account Name	BLUESCOPE STEEL LIMITED
Account Holder	BLUESCOPE STEEL LIMITED

Acquiring Account

Account Number	AU-1058
Account Name	Australia Voluntary Cancellation Account
Account Holder	Commonwealth of Australia

Transaction Blocks

Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
AU	KACCU	Voluntary ACCU Cancellation			ERF101548					2021-22		8,337,288,193 - 8,337,288,221	29

Transaction Status History

Status Date	Status Code
11/03/2024 10:45:08 (AEDT) 10/03/2024 23:45:08 (GMT)	Completed (4)
11/03/2024 10:45:08 (AEDT) 10/03/2024 23:45:08 (GMT)	Proposed (1)
11/03/2024 10:45:08 (AEDT) 10/03/2024 23:45:08 (GMT)	Account Holder Approved (97)
11/03/2024 09:46:58 (AEDT) 10/03/2024 22:46:58 (GMT)	Awaiting Account Holder Approval (95)

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

N/A

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 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	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**.

	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.

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
Personnel	N	N	N	N	N	<p>Size: The emissions source is not large compared to other attributable emissions.</p> <p>Influence: The potential influence of the emissions from this source is neglectable compared to the product.</p> <p>Risk: The source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p>Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for the product.</p> <p>Outsourcing: Not Applicable</p>
Capital Goods	N	N	N	N	N	<p>Size: The emissions source is not large compared to other attributable emissions.</p> <p>Influence: Not applicable to the EPD pathway.</p> <p>Risk: The source is unlikely to be of significant public interest.</p> <p>Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for the product.</p> <p>Outsourcing: Not Applicable</p>



An Australian Government Initiative

