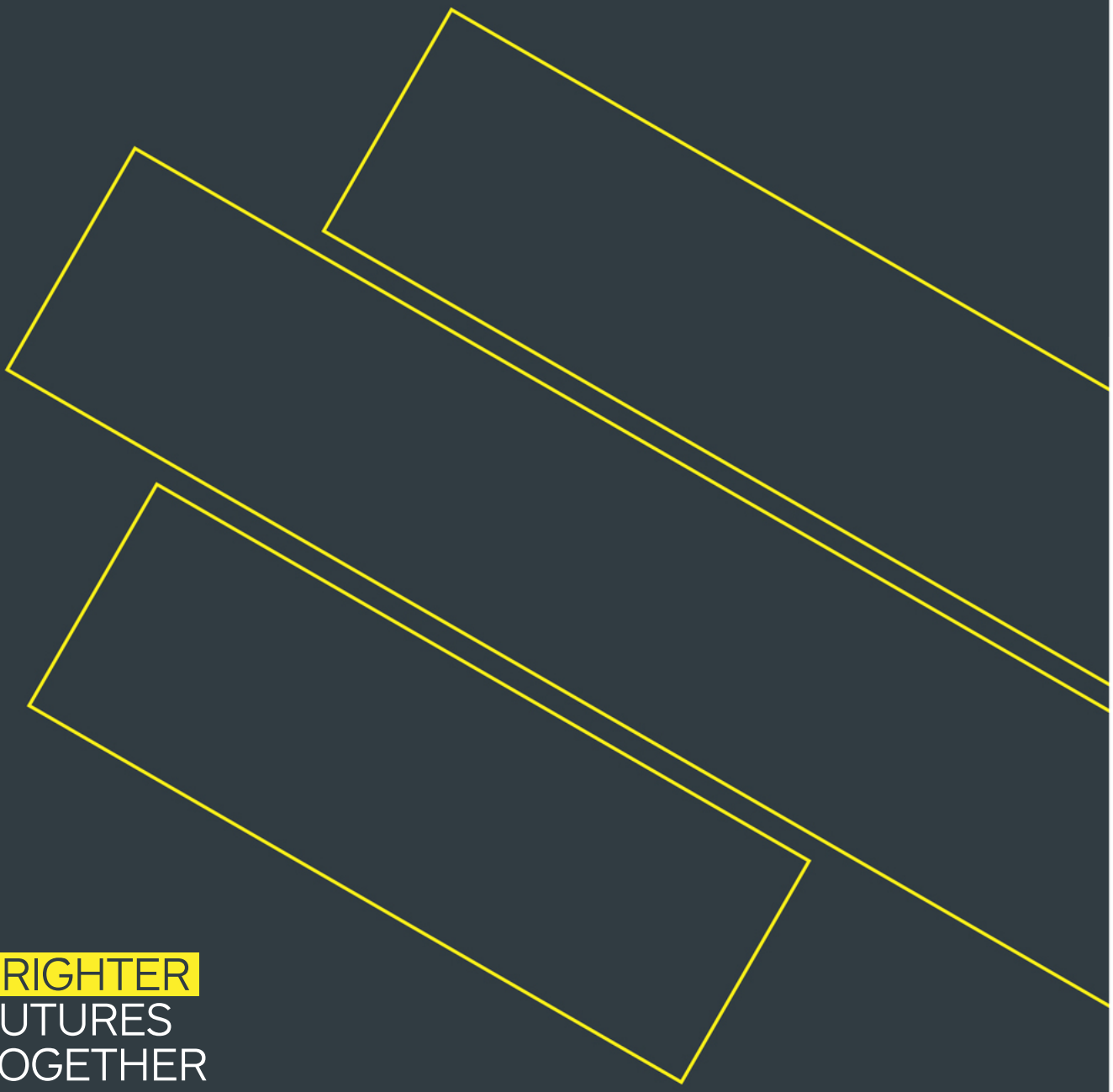
SOUTH32

CELEBRATING 10 YEARS 2015 – 2025

CLIMATE-RELATED RISK AND REPORTING METHODOLOGY 2025



BRIGHTER FUTURES TOGETHER

Our 2025 Annual Reporting Suite

This year we have integrated our Sustainable Development Report and Corporate Governance Statement into our Annual Report. Our Annual Reporting Suite includes the following publications:

Annual Report

Climate Change Action Plan

Modern Slavery Statement

Our Annual Reporting Suite also includes the:

- Sustainability Databook
- Sustainability Standards and Frameworks Index
- Tax Databook

You can view all the documents in our Annual Reporting Suite at www.south32.net

About this document

South32 Limited (ABN 84 093 732 597) is the ultimate holding company of the South32 group of companies.

In this document, unless otherwise noted:

1. references to South32, the South32 Group, the Group, we, us, our and similar expressions refer to South32 Limited, its subsidiaries and operated joint ventures[1];
2. references to 'our operations', or phrases such as commodities 'we produce', 'we refine, or in 'our portfolio' includes commodities such as bauxite, alumina, aluminium and copper that may form part of, or be produced by our non-operated joint ventures[2];
3. the term 'emissions' refers to greenhouse gas (GHG) emissions;
4. metrics describing emissions are dealt with in the following manner:
    1. metrics describing our operational emissions (i.e. Scope 1 and 2 emissions) apply to 'operated operations' that are wholly owned and operated by South32, or that are operated by South32 in a joint arrangement[3]; and
    2. metrics describing emissions in the value chain (i.e. Scope 3 emissions) apply to all of our operations including those that are wholly owned and operated by South32, and those that are operated and not operated by South32 in a joint arrangement.

Further explanation of commonly used terms and references can be found in the Glossary beginning on page 31 of our Climate Change Action Plan 2025.

Forward-looking statements and scenario analysis

This document contains forward-looking statements, including but not limited to statements regarding climate change, energy transition scenarios, carbon pricing and climate-related targets, goals and commitments. These forward-looking statements reflect South32's current expectations, best estimates and assumptions as at the date of this document. A range of variables could cause actual results or trends to differ materially from the statements we have made, including but not limited to: financial and economic conditions in various countries; fluctuations in demand, price, or currency; operating results; development progress including approvals; risks, including physical, technology and carbon emissions reductions risks; industry competition; loss of market for South32's products; legislative, fiscal, and regulatory developments; the conduct of joint venture participants and contractual counterparties, and estimates relating to cost, engineering, reserves and resources. These forward-looking statements are not guarantees or predictions of future performance or outcomes, or statements of fact, involve known and unknown risks and uncertainties, and may rely on assumptions that may or may not prove to be correct or eventuate, or be impacted by additional factors to any assumptions disclosed, which may cause actual results to differ materially from those expressed in the report

Information prepared by third parties

Certain information contained in this report is based on information prepared by third parties. South32 has not sought to independently verify information obtained from public and third-party sources and makes no representations or warranties as to accuracy, completeness, reasonableness or reliability of such information.

1. Details of operations which are not wholly owned by South32 Limited or its subsidiaries and for which South32 manages the operation, are on page 273 of the 2025 Annual Report.
2. Details of operations which are not wholly owned by South32 Limited or its subsidiaries and which South32 does not manage the operation, are on page 273 of the 2025 Annual Report.
3. In this document, references to 'joint arrangements' mean operations that are not wholly owned by South32, such as joint ventures and joint operations.

Contents

About this document

This Climate-related Risk and Reporting Methodology is a technical guide to our FY25 climate-related data and disclosures. It outlines our approach to identifying, assessing and managing climate-related risks and opportunities, and describes the boundaries, methodologies, assumptions and key references used in the preparation of our greenhouse gas (GHG) emissions, energy reporting, and other climate-related disclosures.

Acknowledgement

We acknowledge and pay our respects to the Indigenous, Traditional and Tribal Peoples of the lands, waters and territories on which South32 is located and where we conduct our business around the world.

We respect and acknowledge the unique cultural and spiritual relationships that Indigenous, Traditional and Tribal Peoples have to the lands, waters and territories, and their rich contribution to society.

In the spirit of respect and reconciliation, we will continue to support initiatives that strengthen culture and ways of life so that their legacy continues and extends to future generations.

Right: Local farmer from Maputo province in Mozambique.

Climate-related risk management

CLIMATE-RELATED RISK MANAGEMENT

Our approach to risk management is governed by our risk management framework, which is defined in our Risk Management Policy, available at *www.south32.net*. This framework applies to all risks, such that our consideration of climate-related risks is consistent with, and integrated into, our overall risk management approach.

Climate-related risk management process

We organise our risks within a structured risk taxonomy. Material risks are grouped into risk families based on shared characteristics or scope. Where appropriate, these families are further divided into risk categories. Each risk family is aligned to one or more of our strategic risks, reflecting their collective potential to impact the achievement of our strategic objectives.

EXAMPLE CLIMATE INTELLIGENCE INPUTS

PHYSICAL RISKS

- Weather insights: Historical extremes, weather forecasts;
- Location-specific climate projections: Downscaled Coupled Model Intercomparison Project 6 (CMIP6);
- Climate hazard variables: E.g. temperature, flood risk, rainfall, drought, fire weather, storms, sea level rise;
- Operation-level data: Location, lifespan, criticality; and
- Existing risk registers and event data.

TRANSITION RISKS

- Emissions profiling and forecasting: Scopes 1, 2 and 3;
- Scenario analysis: To test portfolio resilience;
- Carbon pricing protocols and assumptions: Including regional prices, across time horizons; and
- Policy and regulatory tracking: Including jurisdictional climate commitments and environmental, emissions-limiting and disclosure regulations.

ASSESSMENT SCOPE

Identified and assessed across:

- Managed operations: Infrastructure and assets, resource security (energy, water);
- Value chain: Upstream and downstream, transportation and logistics;
- Workforce and communities: Health, safety, and communities; and
- Nature: Biodiversity, water, pollution, waste.

Identified and assessed across our business model and value chain, considering:

- Policy: Carbon pricing and regulatory compliance;
- Legal: Litigation, liability and disclosure risk;
- Markets: Demand, supply, pricing, investor sentiment;
- Reputation: Stakeholder expectations and scrutiny;
- Technology: Affecting operations or competitiveness; and
- Emissions exposure: Operational and value chain.

RISK MANAGEMENT APPROACH

- Identify risks at a strategic level and tactical level;
- Conduct risk assessment, including likelihood, time horizon (e.g. present day or over life of operation) and impact (financial and non-financial);
- Identify appropriate treatment, apply controls, test effectiveness; and
- Monitor and review.

Strategic risks

Strategic risks are those that may affect our ability to achieve our strategic objectives. 'Climate change and environment' is a strategic risk for South32. A specific risk appetite statement for this risk has been developed by management and approved by our Board. Key Risk Indicators (KRIs) are set by management to monitor performance against the defined risk appetite. Climate-related risks rarely occur in isolation. Instead, they often act as amplifiers or contributing factors to other strategic risks. These include, but are not limited to:

- Keeping our people safe and well;
- Predictable operational performance;
- Supply chain security;
- Evolving societal expectations;
- Global economic uncertainty;
- Liquidity and political risks; and
- Actions by governments and/or authorities.

The mapping of these strategic risks to specific physical risk and transition risk themes, is illustrated on pages 56 and 57 of our Annual Report 2025.

Risk families and categories

Within our risk taxonomy, climate change physical risks and transition risks are defined as distinct risk categories. Recent improvements include upgraded functionality in our risk management tool, Global360, and the introduction of risk category owners to drive greater accountability. Further work is planned to strengthen how risk category owners of physical risks and transition risks use Global360 to identify opportunities to strengthen risk management controls and share leading practices.

Material risks

Material risks are those risk events that can materially impact our ability to achieve our business plans and processes. Risks are assessed according to their inherent risk (maximum potential impact) as well as their residual risk (residual risk rating), which considers the effectiveness of current controls.

Management of material risks is routinely assessed by our Lead Team. The Risk and Audit Committee and Sustainability Committee receive periodic reviews on material risk performance which assists our Board in overseeing our risk management and assurance practices.

We report real-time risk data through Global360. This software connects data relating to management of our risks, events, hazards and assurance actions. Beyond helping us manage our material risks, data captured in this platform contributes towards the monitoring and management of our strategic risks and provides insight into trends that can inform a review of our business plans or a change in strategic direction.

Risk Monitoring

Strategic risk

- Risk appetite statements reviewed annually;
- Management responses reviewed and verified annually; and
- KRIs and inherent risk trend tracked six monthly, actions assigned if required.

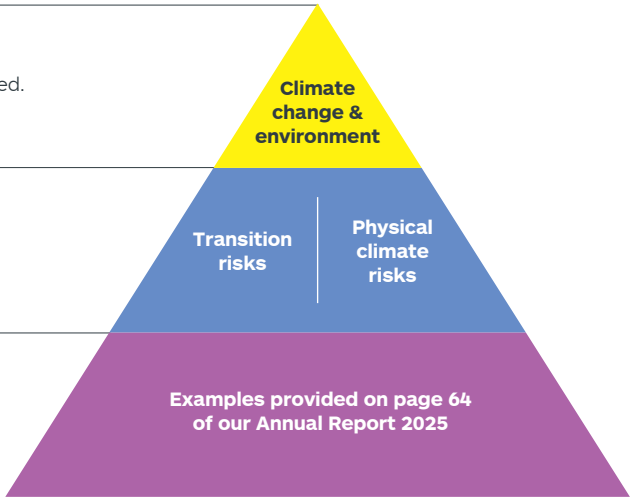
Risk categories within the climate change risk family

Environment risk categories not shown

- Risk families and categories reviewed annually; and
- Trends across risk families monitored six monthly.

Material risks

- Material risk review conducted every three years;
- Critical controls identified and tested at least annually; and
- Risk status updated in Global360 as actions raised and addressed.



Time horizons

Climate-related risks and opportunities are identified and assessed over three defined time horizons.

Time horizons	
Short-term: Zero to two years	– Aligns to two-year budget cycle and 24-month mine and production planning; – Supports immediate operational decision-making and financial planning; and – Focuses on potential operational impacts, managed through our system of risk management.
Medium-term: Two to five years	– Covers actions and initiatives that sit outside of the two-year budget cycle; – Supports strategy implementation and planning, and initiatives to generate or protect long-term value; and – Focuses on transition risk mitigation and physical risk adaptation measures.
Long-term: Beyond five years	– Reflects life of operations plans, decarbonisation pathways, market outlook assessments (2040+) and closure planning (to 2100 and beyond); – Supports major capital decisions, closure planning and strategic planning; and – Focuses on risks and opportunities with the potential to impact our strategy.

Climate-related risk management continued

Climate scenario analysis

Climate scenario analysis explores how the future could evolve under a range of plausible, but hypothetical, conditions shaped by different emissions trajectories, policy responses, technological developments, and climate outcomes. While these scenarios are not forecasts, they help us to explore climate-related risks and uncover opportunities to create and protect value. As transition and physical risks are driven by fundamentally different forces—socio-economic and policy change versus physical climate hazards—different modelling approaches are applied. Together, these analyses provide a complementary view of climate-related risks and opportunities that may impact our business.

We apply two distinct climate scenario frameworks: one for transition risks and one for physical risks, each with two scenarios. Our approach incorporates a 1.5°C and >2.5°C scenario for transition risk, while our physical risk analysis uses hazard-based models considering different temperature trajectories. This enables us to assess our strategic and operational resilience across a range of climate futures.

We recognise that climate scenario analysis is iterative and is subject to inherent uncertainty, as it relies on assumptions that may not fully materialise and is influenced by factors outside the original modelling scope. For this reason, it is used in conjunction with other tools to inform the identification, assessment, and management of climate-related risks and opportunities.

For further information on our scenario analysis methodology and results, refer to pages 10 to 12 of our Climate Change Action Plan 2025.

Our climate scenario frameworks	Temperature rise (2100)
Transition risks: We use two socio-economic and policy-driven scenarios to explore how changes in markets, regulation, and technology under different climate pathways may impact our business. These scenarios inform market and portfolio resilience analyses, as well as our strategic, financial, and business planning.	
Accelerated Transition: Reflects a future in which the rapid, globally coordinated deployment of new technologies and infrastructure alongside policy and regulation changes enables steep emissions reductions.	1.5°C
Fragmented Transition: Describes a future in which fragmented progress in addressing climate change, limited global coordination and slower technological deployment results in global warming exceeding 2.5°C above pre-industrial levels.	2.8°C
Physical risks: We use two modelled climate scenarios from the Intergovernmental Panel on Climate Change (IPCC). These focus on emissions pathways and associated climate outcomes and are applied through site-specific risk assessments. They help us evaluate exposure to climate hazards such as extreme rainfall, sea level rise, drought, and heat stress.	
SSP2-4.5: Represents a moderate emissions pathway, broadly aligned with our Fragmented Transition scenario, in which global temperatures stabilise mid-century. Physical climate risks vary by region and hazard, but are generally less severe than those projected under higher-emission scenarios.	2.1°C - 3.5°C
SSP5-8.5: Depicts a high emissions pathway associated with substantial warming and a higher likelihood of widespread, severe but plausible physical climate risks across most regions and hazard types. A common reference scenario for stress-testing exposure to extreme physical risk in climate risk assessments.	3.3°C - 5.7°C

Carbon pricing

CARBON PRICING

Carbon pricing mechanisms are intended to limit or reduce emissions and include cap-and-trade schemes, baseline-and-credit schemes, carbon tax/fee systems, and other emissions control (for example, command-and-control approach) and permit based mechanisms.

Emissions limiting regulations

Our operations in Australia are all subject to the Australian Safeguard Mechanism (National Greenhouse and Energy Reporting Act) which applies to operations that emit more than 100,000t CO_2-e Scope 1 emissions per year. Flexible compliance arrangements available under the reforms (such as Safeguard Mechanism Credits (SMCs), banking and borrowing arrangements and extended multi-year monitoring periods) may allow us to optimise and manage the inherent annual variability in Scope 1 emissions performance across our operations.

South Africa's Carbon Tax Act (Act No.15/2019) sets a carbon price for Scope 1 emissions, excluding diesel for transportation. The Act includes a number of mechanisms which operations can utilise to reduce their tax liability, including a carbon budget allowance for operations that have voluntarily participated in the development of a carbon budget with the Department of Forestry, Fisheries and Environment. The Act also allows for operations to reduce their payable carbon tax by retiring carbon credits against a portion of the liability.

Draft regulations for a mandatory carbon budgeting regime were published in August 2025 with implementation expected in 2026. Impacts for our South African operations include an additional payable levy for Scope 1 emissions that exceed an operation's carbon budget, as well as, the ceasing of the carbon budget allowance.

Carbon tariffs

Carbon tariffs on certain carbon-intensive imported products, known as a Carbon Border Adjustment Mechanism (CBAM), is a policy tool intended to mitigate carbon leakage and maintain domestic competitiveness in carbon-intensive sectors.

The EU Carbon Border Adjustment Mechanism (EU CBAM) entered into force in October 2023, and will impose a carbon tariff on imports into the EU of specified GHG emission-intensive goods from 2026. For our operated assets, this includes aluminium which we export to the EU from our Hillside Aluminium and Mozal Aluminium smelters, and ferronickel (as a pre-cursor material for steel) exported from Cerro Matoso[4].

In compliance with new reporting obligations, we submit quarterly CBAM reports to the EU Commission declaring the embedded emissions for our aluminium and ferronickel products dispatched to the EU. From 2026, under existing policy, EU importers will need to purchase CBAM certificates representing a calculated carbon price for the embedded emissions of those products, except to the extent they can demonstrate that a carbon price has already been paid.

Our carbon pricing

Our base case incorporates domestic carbon prices in our key operating regions until FY39, based on current regulations in jurisdictions where we operate and sell our products, and an expectation that emissions allowances will reduce over time.

From FY40, our base case assumes a single global carbon price of US$68 per tonne CO_2-e[5], based on our assessment of policy-driven costs, market price benchmarks, technological innovation and abatement costs. This assessment also considers inputs such as the International Energy Agency's projected carbon prices, global institution estimates, spot prices in major emitting countries and regulatory changes including the EU CBAM.

Higher carbon prices are likely to be required to accelerate global decarbonisation. Reflecting this, our Accelerated Transition scenario adopts a carbon price of US$200/t CO_2-e in 2040 increasing to US$253/t CO_2-e by 2050. These prices are informed by region-specific abatement costs and policy settings, which reflect varying levels of ambition, market mechanisms and international coordination. Each region's explicit carbon price is weighted by its annual emissions to derive a global average price.

We regularly assess and update our carbon price forecasts in response to changes in policy, technology and price benchmarks. For example, for FY25 we updated our base case carbon price for our Australian operations to A$45/t CO_2-e, aligning with the supply and demand forecast in the Australian Carbon Credit Unit market.

4. In July 2025, we entered into an agreement to sell Cerro Matoso, which is expected to complete in late H1 FY26 subject to the satisfaction or waiver of certain conditions. Refer to market release "Agreement to Divest Cerro Matoso" dated 7 July 2025.
5. Our base case global carbon price is indexed to inflation (real January 2025), adjusted and assessed annually and applied to all our operational emissions, regardless of the source or geographic location of their production.

Climate-related metrics and targets

CLIMATE-RELATED METRICS AND TARGETS

Climate-related metrics

We use a range of metrics and measures to track our climate-related performance and assess and manage climate-related risks and opportunities. These include:

- Copper equivalent (CuEq) production, revenue and capital expenditure for our commodities critical to the energy transition;
- Operational emissions, operational energy consumption, the emissions and energy intensity of our products, and progress of our decarbonisation studies, projects and initiatives;
- Value chain emissions, including emissions of non-operated joint ventures, and progress on engagements and initiatives with our suppliers and customers; and
- Key performance indicators, metrics and targets for other sustainability topics related to climate change, such as water, energy and land use, which are detailed in our Sustainability Databook 2025.

When we refer to operational emissions, this means Scope 1 and 2 emissions from operations that we own or control. When we refer to value chain emissions, this means Scope 3 emissions. When we refer to operational energy consumption, this means energy consumed by operations that we own or control.

Emissions intensity with respect to commodity production is presented on a CuEq production basis. The conversion of production data to CuEq production is applied so that we can present an intensity metric that can include the range of commodities produced by South32.

CuEq production has been calculated based on FY25 averaged realised product prices for all years included in FY25 reporting, to allow for comparison between years. Production figures are consistent with energy and emissions reporting boundaries and are taken on a 100% basis where we have operational control.

Emissions and energy data

We report energy consumption and emissions data in our 2025 Sustainability Databook. This includes:

- Scope 1 emissions, which are direct emissions from operations that we own or control;
- Scope 2 emissions, which are indirect emissions from the generation of energy that we purchase and consume; and
- Scope 3 emissions, which are all other indirect emissions that occur upstream and downstream from our operations.

We use methodologies consistent with the World Resources Institute and World Business Council for Sustainable Development's Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (2015), GHG Protocol Scope 2 Guidance, GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2013) and the Technical Guidance for Calculating Scope 3 Emissions (version 1.0). The GHG Protocol documents are the most widely recognised and used global standards and guidance for emissions reporting.

There is inherent uncertainty and limitations in calculating emissions and energy consumption using average emission factors. Accordingly, all reported emissions and energy consumption data disclosed in our corporate reports incorporates this element of estimation. There may also be differences in the manner that third parties calculate or report such data compared to South32 such that third-party data may not be comparable to ours.

Assurance

Our assurance process includes reasonable assurance over operational emissions data and limited assurance over our climate change topic disclosures and related performance data (including Scope 3 emissions and energy consumption), as reported in our:

- Climate Change Action Plan 2025;
- Annual Report 2025;
- Sustainability Databook 2025; and
- Sustainability Standards and Frameworks Index 2025.

Further information can be found in the FY25 Independent Assurance Report from KPMG Australia on pages 58 to 63 of our Annual Report 2025 available at *www.south32.net*.

Organisational boundaries

Emissions and energy consumption are accounted for by applying an operating control organisational boundary in line with the GHG Protocol. The operational control approach is also used for our FY35 emissions reduction target and long-term net zero goal.

Reported operational emissions and energy consumption totals are based on the organisational consolidation boundaries, consistent with the GHG Protocol Corporate Accounting and Reporting Standard definitions which:

- Includes 100% of Scope 1 and 2 emissions and energy consumption for operations where we have operational control (including one or more subsidiaries in the South32 group of companies); and
- Excludes energy consumption and emissions from operations in which we own an interest, but do not have operational control.

This year we have for the first time disclosed our emissions inventories applying an equity share approach. Scope 1 and 2 emissions from non-operated joint venture interests are included in the equity share emissions inventory. Non-operated joint ventures Scope 1 and 2 emissions fall outside the scope of our reasonable assurance opinion over our operational emissions. This should be noted when considering and comparing the different inventories reported under different boundary definitions.

Reported Scope 3 emissions are estimated on an equity basis for downstream emissions, including emissions from non-operated joint ventures. For the upstream emissions component, the boundary is defined on a category-by-category basis due to data limitations. For information about the boundary approach for each Scope 3 emissions category, refer to the 'Value chain emissions' section beginning on page 13.

To support comparability with previous years' data, we provide two data sets for emissions and energy:

- **Total operations basis**, which is inclusive of operations that are no longer in our portfolio. Emissions are reported up to the divestment date for Metalloys divested on 2 June 2025, Illawarra Metallurgical Coal, divested on 29 August 2024, South Africa Energy Coal divested on 1 June 2021 and Tasmanian Electro Metallurgical Company divested on 1 January 2021; and
- **Continuing operations basis**, which is exclusive of operations that have been divested and reflects emissions from operations which remain in our portfolio as at the end of FY25.

Climate-related targets

We have set a target to reduce our net operational emissions (Scopes 1 and 2) by 50% by FY35, relative to our FY21 baseline. This is referred to as our FY35 emissions reduction target. We also have a long-term goal to achieve net zero emissions across all scopes (i.e. Scopes 1, 2 and 3) by 2050, which is referred to as our 2050 net zero goal.

We use the term 'target' for an intended outcome in relation to which we have identified one or more pathways for delivery of that outcome, subject to certain assumptions or conditions. We use the term 'goal' in relation to an aspiration to deliver an outcome for which we have not identified a pathway for delivery, but for which efforts will be pursued towards achieving that outcome, subject to certain assumptions or conditions.

Key information about our FY35 emissions reduction target

Definitions, assumptions and other key details	FY35 emissions reduction target
Description	Reduce our net operational emissions (Scopes 1 and 2) by 50% from our FY21 baseline by FY35.
Baseline year and period	*Baseline year*: FY21. *Period*: FY21 to FY35.
Type and reduction	*Type*: Absolute. *Reduction*: Net, 50%.
Boundary	Inventory boundary: Scopes 1 and 2 emissions, operational control.
Exclusions	Operations that we do not have operational control over.
GHGs included	Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), Hydrofluorocarbons (HFC), Perfluorocarbon (PFC) and sulfur hexafluoride (SF_6).
Measurement	Scope 1 emissions are calculated using emission factors and methodologies as detailed on page 11 and Scope 2 emissions are calculated using the market-based method as detailed on page 11 to 12.
Key adjustments made to baseline year	The baseline for our FY35 emissions reduction target has been adjusted for divestment of: Metalloys, divested on 3 June 2025; Illawarra Metallurgical Coal; divested on 29 August 2024; South Africa Energy Coal, divested on 1 June 2021; and Tasmanian Electro Metallurgical Company divested on 1 January 2021.
Target setting method	Our FY35 emissions reduction target was established in FY21. In developing the target, we reviewed science-based emissions reduction pathways that sought to align with the goals of the Paris Agreement and limit global warming to well below 2°C, while pursuing efforts to limit the increase to 1.5°C. This included the IPCC Special Report on Global Warming of 1.5°C which indicated that to limit global warming to 1.5°C, relative to 2010 levels: (i) total global emissions needed to decline by about 45% by 2030; and (ii) carbon dioxide emissions from fossil fuel and industry sources needed to decline sharply by approximately 50-70% by 2030.
Target derived using a sectoral decarbonisation approach	Our FY35 emissions reduction target was not derived using a sectoral decarbonisation approach. It was derived with consideration of the above-mentioned global reference points. At the time of setting the target, there were no mining sector-specific pathways for jurisdictions where we operate.
Process for reviewing the target	Our Board approves our Sustainability Policy and our Climate Change Action Plan (CCAP), including the commitments therein. We review our FY35 emissions reduction target as part of periodic updates to our CCAP, or more frequently if required.
Use of carbon credits to offset emissions	Our approach to decarbonisation applies the principles of the mitigation hierarchy, prioritising emissions avoidance and structural abatement over the use of carbon credits to offset emissions. Our preferred pathway to achieve our FY35 emissions reduction target does not currently include carbon credits purchased and retired on a voluntary basis; however, if there is a shortfall, to the extent affordable, we may use carbon credits as offsets to close the performance gap.
Process for monitoring progress towards the target	We use emissions metrics and other measures to track progress towards our FY35 emissions reduction target. We monitor and report this progress to our Lead Team and the Board's Sustainability Committee through an internal quarterly reporting process, which includes operational emissions and progress on abatement projects. KPMG provide limited assurance over our FY25 progress reporting against our Climate Change Action Plan in addition to reasonable assurance of our Scope 1 and 2 emissions, and limited assurance of Scope 3 emissions.
Third-party validation of our target	We have not obtained third-party validation of our FY35 emissions reduction target, but we obtain reasonable assurance over our externally reported performance against our target.
Expected progression	Achieving our FY35 emissions reduction target relies on advancing decarbonisation of our integrated aluminium business. We do not expect our emissions to reduce in a gradual or linear trajectory. In some years, they may increase due to a range of factors, including changes in production and energy demand, the timing of abatement project completion, and variations in energy mix or emissions factors.

Climate-related metrics and targets continued

Recalculation of baseline year operational emissions

For transparency and comparability over time, baseline year emissions may need to be recalculated as we undergo significant structural changes, methodology changes, or discover errors. The following shall trigger recalculation of baseline year operational emissions:

- Structural changes in our organisation that have a significant impact on baseline year emissions. A structural change involves the transfer of ownership or control of emissions-generating activities or operations from one company to another. Structural changes include:
  - Mergers, acquisitions, and divestment; and
  - Outsourcing and insourcing of emitting activities.
- Changes in calculation methodology or improvements in the accuracy of emission factors or activity data that result in a significant impact on the baseline year emissions data. We consider significant impact as a 5% variance to the previously reported value; and
- Discovery of significant errors, or a number of cumulative errors, that are collectively significant. We consider significant impact as a 5% variance to the previously reported value.

Setting a short-term target (FY30 or earlier)

The transition of our two highest emitting operations to lower carbon energy sources, Hillside Aluminium and Worsley Alumina, presents complex technical and commercial challenges which will take time to resolve. At this stage we are not confident that we would achieve sufficiently material emissions reductions within the timeframe of a credible short-term target. We continue to evaluate our options but will only set a short-term target if we have confidence in a credible, viable and responsible pathway to its achievement.

Validation by Science Based Targets Initiative

Our FY35 emissions reduction target has not been validated by the Science Based Targets Initiative (SBTi) for the following reasons:

- SBTi has not developed a methodology to assess the diversified mining sector;
- SBTi excludes target verification for any company deriving more than 5% of its revenue from fossil fuel assets, making no distinction between coal used for steelmaking and coal produced for energy generation. Until the sale of Illawarra Metallurgical Coal in August 2024, South32 derived more than 5% of revenue from metallurgical coal; and
- SBTi requires Scope 3 targets to have the same level of commitment, ambition and trajectory as Scope 1 and 2 emissions, which presents substantial practical challenges for our business and value chain.

In December 2024, we joined with several mining and metals companies in welcoming SBTi's discussion paper on Scope 3 emissions, titled 'Aligning Corporate Value Chains to Global Climate Goals', and its decision to explore and potentially update its approach. You can read the industry response here.

In May 2025 SBTi published an initial draft of its revised Corporate Net-Zero Standard for public consultation. We will assess opportunities for verification of our FY35 emissions reduction target with the SBTi following finalisation of the revised Standard.

Setting a Scope 3 target

Scope 3 emissions arising from upstream and downstream activities are outside our direct operational control, presenting unique and complex challenges. As the pathway to net zero across the value chain is highly uncertain, we have not established quantitative reduction targets for Scope 3 emissions. From FY25, we are evolving our approach to focus on practical and impactful engagement activities intended to support emissions reduction along our value chain. Further detail on this revised approach is provided in our Climate Change Action Plan 2025.

Using carbon credits to offset emissions

Carbon credits retired to offset emissions represent either reductions in emissions that would have occurred, or sequestration of emissions outside of our reporting boundary. Offsetting emissions is enabled by actions undertaken by us or third parties on our behalf, usually through the purchase of carbon credits.

Each tonne of CO_2-e reduced or sequestered is represented by a certified unit — a controlled certificate or token — which must be retired or permanently removed from circulation to be counted as an offset. Retirement is specific to a single reporting period and cannot be double-counted.

To be eligible, the certificate must be generated by a national government or an internationally recognised issuing organisation.

Carbon credits retired, surrendered or otherwise cancelled (referred to as "retired") for compliance purposes and/or as offsets towards any climate-related target must pass our due diligence assessment.

Our operations may purchase and retire certain carbon credits to meet obligations under GHG emission limiting regulations. Carbon credits retired for these purposes have not, to date, been included in our net emissions calculation.

While we may use SMCs for compliance purposes, they are excluded from our net emissions calculation, as they are a regulatory compliance tool specific to the Safeguard Mechanism and not intended to be used outside of the scheme.

Due to mismatches between reporting timelines in different national or regional carbon pricing systems and South32's own reporting period, when retiring carbon credits, we report the total number of carbon credits retired during our reporting period, regardless of the period in which the underlying activity occurred.

Operational emissions and energy consumption

OPERATIONAL EMISSIONS AND ENERGY CONSUMPTION

Scope 1 emissions methodology

Scope 1 emissions include the following sources:

- Emissions from the combustion of fossil fuels, including:
  - Coal and coke as solid fossil fuels;
  - Diesel and other oil products as liquid fossil fuels;
  - Natural gas; and
  - Other gas-based fossil fuels.
- Emissions from use of fossil fuels as reductants, i.e. carbon-based materials for the chemical reduction of metal oxides;
- Fugitive emissions arising from fossil fuel extraction, including:
  - Coal seam emissions from our underground coal industrial assets, primarily involving methane; and
  - Emissions from decommissioned/closed coal mines.
- Other emissions directly caused by process activities (e.g. PFC emissions generated during the smelting process).

Reporting our Scope 1 emissions sources is primarily aligned with local reporting regulations and requirements. Where these do not exist or where there are inclusions in our inventory which are not within the reporting boundary of those guidance documents, the IPCC factors are used.

Reported Scope 1 emissions include the following gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), PFC's and sulphur hexafluoride SF_6. We do not report emissions from nitrogen triflouoride (NF_3) which is a synthetic GHG mainly used in the manufacturing of semiconductors and is currently not relevant for our operations. We convert these GHG's into a CO_2 equivalent value (CO_2-e) using Global Warming Potential (GWP) values based on a 100-year time horizon from the IPCC Fifth Assessment Report (AR5).

Scope 1 emission factor sources

Sources of the emission factors used for our Scope 1 emissions are outlined below.

Scope 1 emission factor sources

Methodology / Source	Operation / Country
Guidelines for National Greenhouse Inventories, Intergovernmental Panel on Climate Change (IPCC) 2006, 2019 updates	All
National Greenhouse and Energy Reporting (NGER) (Measurement) Determination 2008 (as amended), Australian Government (2024)	Cannington, Australia Manganese, Illawarra Metallurgical Coal (IMC) (Divested), and Worsley Alumina (Australia)
Methodological guidelines for quantification of Greenhouse Gas Emissions, Government of South Africa (2022)	South Africa Manganese, Hillside (South Africa)
GHG Emissions Factors Hub, United States Environmental Protection Agency (2025)	Hermosa (United States)

Scope 2 emissions methodology

Scope 2 emissions are indirect CO_2-e emissions associated with the generation of purchased electricity which is consumed by operations under our operational control.

Our approach aligns with the GHG Protocol Corporate Standard (Scope 2 Guidance) recommendation of dual reporting of corporate Scope 2 emissions with both:

- Location-based Scope 2 reporting that reflects the location of the operation and the electricity intensity of the grid; and
- Market-based Scope 2 method accounting for commercial decisions to purchase the rights to renewable units of electricity and reflecting residual mix emissions factors where suitable factors are published.

Location-based Scope 2 emissions

Location-based Scope 2 emissions are calculated using the grid-average emission intensity of the local grid where the power is sourced. We apply the latest versions of the applicable emission factor sources as available at the end of a given reporting year. National or regional grid-emission factors are applied as outlined below.

Scope 2 location-based emission factor sources

Methodology / Source	Operation / Country
National Greenhouse and Energy Reporting (Measurement) Determination 2008 (as amended), Australian Government (2024)	Cannington, Australia Manganese, Illawarra Metallurgical Coal (Divested), and Worsley Alumina (Australia)
South Africa's 2022 Grid Emissions Factor Report (2024)	South Africa Manganese and Hillside Aluminium (South Africa)
Emissions & Generation Resource Integrated Database (eGRID), United States Environmental Protection Agency (EPA) (2025)	Hermosa project (United States)
Emission factors of the Unidad de Planeacion Minero Energetica (UPME), Colombian National Interconnected System (2024)	Cerro Matoso (Colombia)
Electricidade de Mozambique (EDM) electricity factor	Mozal Aluminium (Mozambique)

Operational emissions and energy consumption continued

Market-based Scope 2 emissions

The market-based Scope 2 emissions method is based on the specific producers from which our operations contractually obtain purchased power. This may be through a contractual arrangement which also includes purchased and retired Energy Attribute Certificates (EACs) (such as Renewable Energy Certificates or RECs).

We consider the following as qualifying contractual instruments and sources of supplier-specific emissions factors:

- EACs such as Guarantees of Origin, Renewable Energy Certificates (RECs), and International Renewable Energy Certificate (I-RECs);
- Direct contracts such as power purchase agreements (PPAs) with exclusive rights to an attributable claim to energy attributes;
- Government-approved green power procurement schemes; and
- Supplier-specific emission factors where these are in the public domain or sourced directly from suppliers.

For electricity purchased that does not have an associated contractual instrument or supplier specific factor, where available, we use the applicable residual mix emissions factor, i.e. the emissions factor that represents the mix of energy generation resources within a defined geographic boundary left after all contractual instruments that are tracked have been claimed, retired or cancelled.

Additionally, where contractual instruments do not meet the market-based quality criteria as defined by the GHG Protocol Scope 2 Guidance, or where our operations operate in markets where qualifying contractual instruments are not available, we use the residual mix factor.

Where residual mix factors are not published, we use location-based emission factors. National or regional reference sources, including utility/supplier and residual mix factor, are shown below.

Scope 2 market-based reference sources

Methodology / Source	Operation / Country
National Greenhouse and Energy Reporting (Measurement) Determination 2008 (as amended), Australian Government (2024)	Cannington, Australia Manganese, Illawarra Metallurgical Coal (Divested in August 2024), and Worsley Alumina (Australia)
Eskom electricity factor	South Africa Manganese and Hillside Aluminium (South Africa)
Electricidade de Mozambique (EDM) electricity factor	Mozal Aluminium (Mozambique)

Energy consumption

Our operations record energy consumption quantities by fuel type (e.g. diesel, natural gas) throughout the year, using sources such as supplier invoices, metering, stockpile changes and other industry standard practices.

All fuel quantities are converted to energy-based units using energy content factors specific to each fuel (e.g. gigajoules per kilolitre for diesel), sourced from appropriate references. Electricity quantities are not required to be converted as consumption is recorded in energy-based units by definition.

Operational energy consumption from renewable sources includes:

- Direct consumption of energy from renewable sources within our operational control: In FY25 this included solar generation at Cannington and biomass consumption at Worsley Alumina; and
- Third party supplied renewable electricity as evidenced by qualifying contractual instruments or supplier-specific emissions factors, in line with the GHG Protocol Scope 2 Guidance.

Energy consumption includes all fuels and electricity consumed in the operation of vehicles and machinery, onsite heat, steam or electricity generation activities, as a chemical or process feedstock; and for any other purpose. It also includes energy consumed from renewable sources, which is also reported as a separate metric.

Energy consumption for operations already reporting under mandatory local regulatory programs are required to use the same energy content factors for reporting under our operational control boundary. This enables a single inventory to be maintained for consistency and efficiency. Local regulatory programs are applicable to the majority of our energy consumption within our operational control boundary.

Biogenic Emissions

Biogenic emissions are CO_2 emissions that originate from the combustion or decomposition of biological or biomass sources. The GHG Protocol treats biogenic emissions as carbon neutral as the carbon they release during combustion was originally absorbed from the atmosphere by the living organism. Therefore, the net effect on atmospheric CO_2 levels is considered zero over a short period (years to decades).

Reporting biogenic emissions, even when considered carbon neutral, provides a clearer picture of our overall carbon impact. We report biogenic emissions from combustion of biomass and biofuels from Worsley Alumina and Cerro Matoso. To calculate these, we use the 'outside of scope' emission factors included in the UK Government GHG Conversion Factors for Company Reporting.

Value chain emissions

VALUE CHAIN EMISSIONS

Scope 3 emissions are indirect emissions that occur in our value chain, including both upstream and downstream activities outside of our operational control boundaries. We calculate Scope 3 emissions in accordance with the category definitions and methodologies in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

The GHG Protocol divides Scope 3 emissions into 15 distinct categories that are designed to be mutually exclusive.

Upstream emissions (Categories 1 to 8) are calculated from extraction of third-party raw materials, energy products and electricity sources, transport and processing up to the product purchased for use or processing at our operations. Emissions from use of purchased products, subsequent processing steps or transport in owned or operated vehicles are excluded as these are included in the Scope 1 or 2 emissions of our operated assets. The upstream value-chain boundary includes third-party transportation paid for by South32.

Downstream emissions (Categories 9 to 15) are calculated up to, and including, the conversion of sold intermediate products produced by our operations into their first-use state, which forms the basis for subsequent final products. For energy products (e.g. coal), the first-use state is often also the final product. Emissions relating to the use (combustion) of energy products sold to third parties by or on behalf of our operations are estimated. The downstream value-chain boundary includes third-party transportation of sold products and investments.

Scope 3 categories included in our reported emissions

- Category 1: Purchased goods and services (incl. capital goods);
- Category 3: Fuel-and energy-related activities;
- Category 4: Upstream transportation and distribution;
- Category 6: Business travel;
- Category 7: Employee commuting;
- Category 9: Downstream transportation and distribution;
- Category 10: Processing of sold products;
- Category 11: Use of sold products; and
- Category 15: Investments.

Scope 3 emissions include value chain emissions from our non-operated joint ventures in category 4 and category 10, where we transport and distribute our share of produced commodities, as well as category 15.

Methodologies for the above categories are provided over the following sections.

Categories excluded from our reported emissions

- Category 2 - Capital goods: As described in the GHG Protocol Scope 3 Guidance, depending on a company's internal procurement processes, purchases of capital goods can be difficult to segregate from the 'Purchased goods and services' category (Category 1). Given our spend data (which includes purchases of capital goods) has been captured in the calculation methodology for Category 1, emissions related to purchases of capital goods are not reported separately here. Instead, for our value chain, the emissions reported under Category 1 include emissions associated with purchases of capital goods.
- Category 5 - Waste generated in operations: This category has been identified as not material to our reported Scope 3 inventory and a emissions figure is not calculated. Spend associated with waste related utility services would be captured as part of reporting for Category 1. This assessment will be periodically reviewed.
- Category 8 - Upstream leased assets: An emissions figure is not calculated for this category as, under our selection of the operational control approach to boundaries, emissions from any upstream leased assets we control are included in our Scope 1 emissions inventory. This assessment will be periodically reviewed.
- Category 12 - End-of-life treatment of sold products: This category has been identified as not material to the Scope 3 inventory and an emissions figure is not calculated. Our products that are not incorporated into the assessment of Scope 3 emissions in Category 12 include metals and minerals with minimal emissions at end of life. This assessment will be periodically reviewed.
- Category 13 - Downstream leased assets: A emissions figure is not calculated for this category as we do not lease downstream assets in the course of normal operations. This assessment will be periodically reviewed.
- Category 14 - Franchises: As we do not have franchised operations an emissions figure is not calculated for this category.

Boundary overlap

The emission categories defined by the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard are designed to be mutually exclusive such that for a given company, there is no double counting of emissions between categories. However, for us, there is a degree of overlap in reporting boundaries due to our involvement at multiple points in the life cycle of the commodities (e.g. alumina used in the production of aluminium ingots) we produce and consume. As a result, some double counting may be inherent due to our position in the value chain and may inflate our reported total Scope 3 emissions.

Some double counting of emissions in our current reported Scope 3 emissions inventory is an expected outcome of emissions reporting between the different Scopes and is not considered to detract from the overall value of our Scope 3 emissions disclosures.

Value chain emissions continued

Upstream Scope 3 categories

Category 1: Purchased goods and services (incl. capital goods)

GHG Protocol description	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 to 8.
Exclusions	No material exclusions.
Calculation basis	None.
Inputs	Quantities or value of goods purchased or acquired in the reporting year (e.g. tonnes of third-party metals and minerals, quantity of consumable items).
Assumptions	Our spend data includes purchases of capital goods and so our Category 1 calculation methodology includes capital goods.
Calculation methodology	We use three different calculation methodologies; namely supplier specific, average data or spend based, depending on the availability and quality of data. 1. Supplier specific: Calculates emissions embedded in purchased goods by multiplying the mass of goods purchased by the relevant primary cradle-to-gate emission factor (product-specific emissions per unit of mass). Sum across purchased goods: Σ (mass of purchased good (e.g. t) × supplier-specific product emission factor of purchased good (e.g. t CO_2-e/t)). 2. Average data: Estimates emissions embedded in purchased goods by multiplying the mass of goods purchased by the relevant industry average cradle-to-gate emission factor. Sum across purchased goods: Σ (mass of purchased good (e.g. t) × emission factor of purchased good per unit of mass (t CO_2-e/t)). 3. Spend based: Estimates emissions embedded in purchased goods by collecting data on their value and multiplying these by relevant spend-based emission factors. Sum across purchased goods: Σ (value of purchased good (US$) × emission factor of purchased good per unit of economic value (t CO_2-e/US$)).
Emission factor sources	1. Supplier specific: Directly sourced from product supplier (e.g. from supplier specific life cycle assessment (LCA) or product carbon footprint (PCF)). 2. Average data: For the high-emission goods select categories (quantity-based), industry-average emission factors are sourced from the International Aluminium Institute (IAI) Scope 3 Calculation Tool Guidance (2022). 3. Spend based: For other goods and services, industry average emission factors are sourced from IBM's Envizi software that is built to align with the GHG Protocol.
Notes	– Only goods purchased or acquired from third-party producers are included in Category 1 inventory. Emissions associated with goods produced or processed by our operations are excluded as associated upstream emissions are already covered in the producing operation's Scope 1, 2 and upstream Scope 3 emissions inventory (e.g. alumina). – For us, this category includes emissions associated with purchases of capital goods, which are classified as a separate category (Category 2) under the Scope 3 Standard. As described in the Scope 3 Guidance, purchases of capital goods can be difficult to segregate from this category. – Transport of goods and services to us may also be included when we do not have a reliable way to estimate it separately.

Category 3: Fuel and energy-related activities

GHG Protocol description	Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in Scope 1 or Scope 2.
Exclusions	No material exclusions.
Calculation basis	Equity share.
Inputs	Quantities and types of fuels purchased and consumed as well as the quantities of purchased and consumed electricity.
Assumptions	None.
Calculation methodology	We use two calculation methodologies for fuel and energy activities, namely fuel usage or electricity usage. 1. Fuel usage: Sum across fuel usage: Σ (quantities of fuels (e.g. tonne) × emission factor of fuel (e.g. tonne CO_2-e/tonne)). 2. Electricity usage: Sum across electricity usage: Σ (quantities of electricity (e.g. MWh) × emission factor of well-to-tank + transmission and distribution (T&D) losses (e.g. tonne CO_2-e/MWh)).
Emission factor sources	For our Australian operations, Scope 3 emission factors are sourced from the most recent Australian National Greenhouse Accounts Factors published by the Australian Government Department of Climate Change, Energy, the Environment and Water available at the time of the calculations. For non-Australian operations, regional Scope 3 emission factors for fuels and energy are not readily available at this stage, so the relevant UK Government GHG Conversion Factors for Company Reporting Scope 3 emission factors are applied as a proxy.
Notes	This category covers emissions arising from the extraction, production, and transportation of fuels and energy consumed by the operations which we own or control, primarily: – Upstream emissions from the extraction, production, and transportation of fuels (e.g. diesel for haul trucks or natural gas for onsite power generation) we use at our operations; and – Upstream emissions from the extraction, production and transportation of fuel (e.g. coal or natural gas) burned to generate the electricity we purchase from the grid.

Category 4: Upstream transportation and distribution

GHG Protocol description	Transportation and distribution of products and services purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company). Includes inbound logistics, outbound logistics (e.g. of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company).
Exclusions	None.
Calculation basis	Equity share.
Inputs	– Quantities of fuels consumed by transport providers; – Quantities of products purchased / sold being transported; – If available: actual distances from transport providers; and – US$ spend data for purchased transport services.
Assumptions	None.
Calculation methodology	We use two calculation methodologies; namely fuel consumption data or spend based, depending on the availability and quality of data. 1. Fuel consumption data (shipping): Involves calculating emissions by determining the total amount of fuel consumed by the transport provider whilst completing its contractual obligations to us and applying the relevant emission factor for that fuel. Sum across fuel types: Σ quantity of fuel consumed (t) × emission factor for the fuel (e.g. t CO_2-e/t). 2. Spend based (road, rail, air freight and water transport): Estimates emissions by collecting data on their economic value and multiplying these by relevant spend-based emission factors. Sum across transportation: Σ (value of transportation spend (US$) × emission factor of transport per unit of economic value (t CO_2-e/US$)).
Emission factor sources	1. Fuel Consumption data: Emission factors are determined by the Marine Environment Protection Committee of the International Maritime Organization (IMO) and Sea Cargo Charter Technical Guidance. For containerised cargo, emissions are estimated according to Clean Cargo Working Group (CCWG) methodology. 2. Spend based: For transportation and distribution services (spend based), industry average emission factors are sourced from IBM's Envizi software that is built to align with the GHG Protocol.
Notes	– As the GHG Protocol Scope 3 Standard categorises Scope 3 emissions as upstream or downstream on the basis of financial transactions, this category includes emissions from the transport of our products where freight costs are covered by South32 (e.g. under Cost and Freight (CFR) or similar terms), as well as purchased transport services for process inputs to our operations; – This category includes emissions from road, rail and marine freight, where the latter makes up the majority of emissions; – Product transport data is sourced from our internal system for each commodity. For each individual product cargo, data includes loading and destination locations and cargo weight; – For all marine freight cargoes, CargoValue Emissions ZeroLab by Klaveness – a data platform used to collate, validate and report vessel emissions under regulatory and voluntary schemes – was used to develop a Scope 3 emission estimate methodology. If fuel consumption values are unavailable, incomplete or appear anomalous, we may need to apply assumptions to estimate fuel consumption based on a range of publicly or privately available data sources; – Where reported fuel consumption for marine freight is not available, fuel consumption is estimated or modelled based on vessel particulars and voyage calculations; – Includes emissions for the transport of our share of NOJV production, where we have paid for the marine freight; – For emissions from purchased transport services for process inputs to our operations, the spend-based method is used, as described in the calculation methodology for the 'Purchased goods and services (including capital goods)' category (Category 1).

Value chain emissions continued

Category 6: Business travel

GHG Protocol description	GHG emissions from the transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company).
Exclusions	Emissions from business travel activities for which distance or spend data is not available.
Calculation basis	100%.
Inputs	– Distance traveled and class of travel; and – Number of hotel night stays per country.
Assumptions	Where no emission factor is available for hotel night stays for a country the regional average is used.
Calculation methodology	We use two calculation methods, one for air travel and one for hotel night stays. 1. Air travel Sum across air travel class: Σ (distance travelled (km) × emission factor of class air travel per unit distance (t CO_2-e/km)). 2. Hotel night stays Sum across hotel nights: Σ (no. of night stay per country × emission factor of hotel night stays per unit (t CO_2-e/night)).
Emission factor sources	Scope 3 emission factors are sourced from the most recent UK GHG Conversion Factors for Company Reporting available at the time of the calculations.
Notes	– This category covers emissions from domestic and international flights undertaken by employees for business travel purposes, as well as other purchased business travel services (e.g. accommodation); – Emissions from flights undertaken by employees for business travel are sourced directly from our third-party corporate travel service provider. The calculation methodology applied in the report (as stated by the provider) aligns with the latest UK Government GHG Conversion Factors for Company Reporting for air travel. UK Government GHG Conversion Factors for Company Reporting consider the distances travelled for domestic, short and long-haul flights in each class of travel (ranging from economy to first class); – Emissions from accommodation undertaken by employees for business travel are sourced directly from our third-party corporate travel service provider. The calculation methodology applied aligns with the latest UK Government GHG Conversion Factors for Company Reporting for air travel. UK Government GHG Conversion Factors for Company Reporting consider the industry average for hotel night stays; and – For other purchased business travel services, spend-based method is used to calculate associated emissions, as described in the calculation methodology for the 'Purchased goods and services (including capital goods)' category (Category 1).

Category 7: Employee Commuting

GHG Protocol description	GHG emissions from transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company).
Exclusions	All other commuting for which data is unavailable.
Calculation basis	Equity share.
Inputs	Distance traveled.
Assumptions	Scope 3 emission factors are sourced from the most recent GHG Conversion Factors for Company Reporting available at the time of the calculations.
Calculation methodology	1. Air travel Sum across all class air travel: Σ (distance travelled (km) × emission factor of class of air travel per unit distance (t CO_2-e/
Emission factor sources	Scope 3 emission factors are sourced from the most recent UK GHG Conversion Factors for Company Reporting available at the time of the calculations.
Notes	– This category covers emissions from chartered fly-in fly-out (FIFO) flights utilised by employees for commuting purposes; and – Distance travel is calculated by multiplying the number of passengers by the distance of each flight route.

Downstream Scope 3 categories

Category 9: Downstream transportation and distribution

GHG Protocol description	GHG emissions from transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company).
Exclusions	– Third-party transportation paid for by South32 (included in category 4); – Third-party rail and road transportation (unable to collect data); and – Operation of third-party distribution facilities (unable to collect data).
Calculation basis	Equity share.
Inputs	– Quantities of products purchased/sold; and – If available: actual distances from transport provider.
Assumptions	None.
Calculation methodology	Fuel consumption data 1. Reported data: Involves calculating emissions by determining the total amount of fuel consumed by the transport provider whilst completing its contractual obligations to South32 and applying the relevant emission factor for that fuel. 2. Estimated data: Involves calculating emissions by estimating the total amount of fuel consumed by the transport provider using vessel/voyage-specific data from public and private sources and applying the relevant emission factor for that fuel. Sum across fuel types: Σ quantity of fuel consumed (t) × emission factor for the fuel (e.g. t CO_2-e/t).
Emission factor sources	Emission factors are determined by the Marine Environment Protection Committee of the International Maritime Organization (IMO) and Sea Cargo Charter Technical Guidance. For containerised cargo, emissions are estimated according to Clean Cargo Working Group (CCWG) methodology.
Notes	– As the GHG Protocol Scope 3 Standard categorises Scope 3 emissions as upstream or downstream on the basis of financial transactions, this category includes emissions from the transportation and distribution of our products where freight costs are not covered by us (e.g. where products are sold on a Free on Board (FOB), Ex Works (EXW) or similar Incoterm. – For some FOB cargoes, destination ports are not known and Klaveness Zerolab uses AIS (i.e. publicly reported geolocational tracking data) to derive the first destination port within the intended destination country.

Value chain emissions continued

Category 10: Processing of sold products

GHG Protocol description	GHG emissions from the processing of intermediate products sold in the reporting year by downstream companies (e.g. manufacturers) subsequent to sale by the reporting company.
Exclusions	In addition to alumina, aluminum, metallurgical coal, copper and manganese, we also produce zinc and lead concentrates, molybdenum, gold, silver and nickel, which are in some cases processed to meet a range of purposes. The variety of end uses associated with these products means applying a meaningful average emission factor is challenging. In addition, the production volumes for these commodities (and their associated emissions) are not significant compared to those for alumina, aluminium, copper, metallurgical coal and manganese. As a result, emissions from the downstream processing of these products have been excluded at this stage. This exclusion will be periodically reviewed.
Calculation basis	Equity share.
Inputs	Quantities of products produced and sold to third parties.

Alumina

Assumptions	– The first finished good in the value chain for alumina is assumed to be aluminium sheeting. – Alumina-to-Aluminium ratio of 1.909 t alumina / t aluminium as per the IAI Life Cycle Inventory. – Aluminium-to-aluminium sheeting ratio of 1.004 t aluminium ingot to 1 t aluminium sheeting as per the European Aluminium Environmental Profile Report.
Calculation methodology	Calculates the emissions of smelting alumina to aluminium. Sum across intermediate products: Σ (quantities of sold intermediate product (t) / 1.909 × emission factor of processing of sold products (t CO_2.e/t of aluminium) + Σ (quantities of sold intermediate product (t) / 1.004 × emission factor of processing of sold products (t CO_2.e/t of material).
Emission factor sources	Customer, country or regional industry-average emission factors for downstream third-party processing steps are centrally sourced, maintained and calculated using CRU data. South32 smelters are excluded from country/regional industry-average calculations.
Notes	– 2024 CRU aluminium smelting emission factors used. – Emissions from processing of alumina sold in the value chain to Hillside and Mozal are included in Scope 1 and 2, and Scope 3 emissions from processing of alumina at Brazil Aluminium are included in Category 15 Investments.

Aluminium

Assumptions	– Aluminium has may end uses, in this calculation of emissions from processing of aluminium, it is assumed all aluminium is converted to aluminium sheeting as the first finished good. – Aluminium-to-aluminium sheeting ratio of 1.004t aluminium ingot to 1t aluminium sheeting as per the European Aluminium Environmental Profile Report.
Calculation methodology	Sum across intermediate products: Σ (quantities of sold intermediate product (t) / 1.004 × emission factor of processing of sold products (t CO_2.e/t of material).
Emission factor	Aluminium ingot-to-aluminium sheeting emission factor as published by the European Aluminium Profile Report.
Notes	None.

Manganese ore

Assumptions	– In the processing of manganese ore the first finished good is assumed to be manganese alloy. – As per the latest International Manganese Institute (IMnI) Life Cycle Assessment, 0.89kg Manganese is required per 1kg Manganese alloy.
Calculation methodology	Sum across intermediate products: Σ (quantities of sold intermediate product (wet t) converted to dry tonnes × % Manganese content / 0.89 x emission factor of processing of sold products (t CO_2.e/t of Mn Alloy).
Emission factor	Industry average emission factor for processing manganese to manganese alloy as published by the latest IMnI Life Cycle Assessment.
Notes	None.

Copper

Assumptions	The first finished good is assumed to be copper cathode (99.99% Cu).
Calculation methodology	Sum across intermediate products: Σ (quantities of sold intermediate product (t) × emission factor of processing of sold products (t CO_2.e/t of material).
Emission factor	Industry average emission factor for production of copper cathode (99.99% Cu) as published by the International Copper Association's latest Copper Life Cycle Inventory.
Notes	None.

Category 11: Use of sold products

GHG Protocol description	GHG emissions from the end use of goods and services sold by the reporting company in the reporting year.
Exclusions	No material exclusions.
Calculation basis	Equity share.
Inputs	Quantity of sold fuels.
Assumptions	All energy coal is assumed to be bituminous and all metallurgical coal is assumed to be sub bituminous.
Calculation methodology	Sum across fuels: Σ (quantity of fuel sold (e.g. t) x energy content x fuel-specific combustion emission factor (e.g. t CO_2-e/GJ).
Emission factor sources	Emission factors are sourced from the Australian NGER Determination published by the Australian Government, with the Scope 1 emission factors given for each fuel applied as the Scope 3 emission factor for the use of South32's sold products.
Notes	None.

Category 15: Investments

GHG Protocol description	GHG emissions associated with the operation of the reporting company's investments (including equity and debt investments and project finance) in the reporting year, not already included in Scope 1 or Scope 2.
Exclusions	No material exclusions.
Calculation basis	Equity share.
Inputs	Operational Scope 1 and 2 emissions from our NOJVs..
Assumptions	For non-operated assets (or interests), we have worked with the relevant operators of each asset to obtain operational emissions data for the FY25 reporting period. Non-operated joint venture Scope 1 and 2 emissions are not included in the scope of our reasonable assurance over operational emissions.
Calculation methodology	Sum across equity investments: Σ (Scope 1 and Scope 2 emissions of non-operated JV) × share of equity (%). Data is provided as follows: – MRN - Provided by the operator for FY25; – Brazil Alumina - Provided by operator for FY25; – Brazil Aluminium - Provided by operator for FY25; and – Sierra Gorda - Provided by the operator for FY25.
Emission factor	We use the investment-specific method and collects emissions data from investees. Therefore, no emission factors are required.
Notes	– This category covers the Scope 1 and 2 emissions (on an equity basis) from our assets that are owned (as a joint venture or other ownership structure) but not operated by us. The GHG Protocol Scope 3 Standard categorises this as a downstream category, as the provision of capital or financing is framed as a service provided by us. Additional investments are added and divestments are removed each year as applicable.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