SUSTAINABLE DEVELOPMENT REPORT 2024

BRIGHTER FUTURES, TOGETHER

About this report

Sustainable Development Report 2024

This report is an overview of how our business-wide processes support our sustainability commitments, how we manage our material sustainability topics and the progress we have made during FY24.

Our 2024 Annual Reporting Suite

Annual Report

Sustainability Databook

Standards and Frameworks Reporting Index

Corporate Governance Statement

Modern Slavery Statement

Tax Transparency and Payments to Governments Report

+ **You can view all the documents in our Annual Reporting Suite at _www.south32.net_.**

About this report

This report has been prepared by South32 Limited (ABN 84 093 732 597) for informational purposes only and is intended to assist its investors with understanding how our business-wide processes support our sustainability objectives and how we manage our material sustainability topics. South32 Limited is the ultimate holding company of the South32 group of companies.

In this report, unless otherwise noted, references to:

(a) South32, the South32 Group, the Group, we, us, our and similar expressions refer to South32 Limited, its subsidiaries and operated joint ventures; and

(b) 'our operations', or commodities 'we produce' or in 'our portfolio' includes commodities such as bauxite, alumina, aluminium and copper that may form part of, or be produced by, non-operated joint ventures.

Further details about the reporting boundaries of this report are set out in the Reporting Boundaries and Restatements section of this report on page [79].

This report should be read in conjunction with South32's Annual Report, Sustainability Databook, Standards and Frameworks Reporting Index and Climate Change Action Plan, together with other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, London Stock Exchange and Johannesburg Stock Exchange. These documents are available at _www.south32.net_.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards (revised 2021 Universal Standards), Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the ICMM Mining Principles and mandatory requirements set out in the ICMM Position Statements.

Monetary amounts in this report are expressed in US dollars, unless otherwise stated.

South32 engaged an independent external assurance organisation, KPMG, to provide the Directors of South32 Limited with assurance on select sustainability information, as explained in the independent assurance report on page 81.

Forward-looking statements & scenario analysis

This report contains forward-looking statements, including statements of current intention and expectation and statements of opinion. This includes statements regarding climate change and other environmental and energy transition scenarios. While these forward-looking statements reflect South32's expectations at the date of this report (including with respect to its strategies and plans regarding climate change), they may be affected by a range of variables which could cause actual outcomes and developments to differ materially from those expressed in such statements. These variables include but are 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. For further information regarding South32's approach to risk, see page 28 of our Annual Report.

South32 makes no representation, assurance or guarantee as to the accuracy, completeness or likelihood of fulfilment of any forward-looking statement, any outcomes expressed or implied in any forward-looking statement or any assumptions on which a forward-looking statement is based.

This report also discusses scenario analysis. There are inherent limitations with scenario analysis and it is difficult to predict which, if any, of the scenarios discussed in this report might eventuate. Scenarios do not constitute definitive outcomes or probabilities, and scenario analysis relies on assumptions that may or may not be, or prove to be, correct and may or may not eventuate. Scenarios may also be impacted by additional factors to the assumptions disclosed.

Except as required by applicable laws or regulations, South32 does not undertake to publicly update or review any forward-looking statements, including scenario analysis. Past performance cannot be relied on as a guide to future performance. South32 cautions against undue reliance on any forward-looking statements or guidance, particularly in light of the long time horizon which this report covers and the inherent uncertainty in possible policy, market and technological developments in the future.

Neither this document, including the Addressing Climate Change section, nor the 2022 Climate Change Action Plan, have been prepared as financial or investment advice or to provide any guidance in relation to the future performance of South32.

Information prepared by third parties

Certain information contained in this report is based on information prepared by third parties. South32 does not make any representation or warranty that this third party material is accurate, complete or up to date.

Cover: An environmental specialist at Worsley Alumina in Australia.
Right: The Governor of the Indigenous Community of Centro América, Puerto Libertador, Cordoba in Colombia.

Contents

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.

SOUTH32 IS A GLOBALLY <mark>DIVERSIFIED</mark> MINING AND METALS COMPANY

We produce commodities including bauxite, alumina, aluminium, copper, zinc, lead, silver, nickel, manganese and metallurgical coal from our operations in Australia, Southern Africa and South America. We also have a portfolio of high-quality development projects and options, and exploration prospects, consistent with our strategy to reshape our portfolio towards commodities critical for a low-carbon future.

Our purpose

Our **purpose** is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

Our strategy

Our purpose is underpinned by a simple **strategy**.

We **optimise** our business by working safely, minimising our impact, consistently delivering stable and predictable performance, and continually improving our competitiveness.

We **unlock** the full value of our business through our people, innovation, projects and technology.

We **identify** and pursue opportunities to sustainably reshape our business for the future, and create enduring social, environmental and economic value.

+ Learn more about our strategy in action in our Annual Report at **_www.south32.net_**.

Sustainability is at the heart of our purpose and underpins the delivery of our strategy.

+ Learn more about our approach to sustainability on pages 10 to 14.

Our values

While our strategy outlines what we do to achieve our purpose, our **values** guide how we do it. Every day, our values shape the way we behave and the standards we set for ourselves and others.

Care
We care about people, the communities we're a part of and the world we depend on.

Trust
We deliver on our commitments and rely on each other to do the right thing.

Togetherness
We value difference and we openly listen and share, knowing that together we are better.

Excellence
We are courageous and challenge ourselves to be the best in what matters.

+ Learn more about our values at **_www.south32.net_**.

Our business explained > **Our business model**

CREATING LONG-TERM VALUE

We create value by producing commodities that are used in many aspects of modern life and can play a critical role in a low-carbon future. Our operations, development projects and options, and exploration prospects are diversified by commodity and geography. We work to minimise the impact of our activities and aim to create enduring value for our stakeholders, at each stage of the mining lifecycle.

Explore — Develop — Mine and process — Refine and smelt — Market — Rehabilitate and close

The resources we rely on

People and expertise: Our global workforce is made up of both employees and contractors and is our most important resource, providing the skills, experience and technical expertise required to run our business.

Natural resources: The resources and reserves we access are the primary inputs for our business. Other natural resources such as water and energy are also important for the operation of our facilities, and we require access to land to conduct our business activities.

Physical assets: We have a suite of operations including open-cut and underground mines, refineries, smelters and associated infrastructure. We procure equipment and services from suppliers globally to support our operations, development projects and options, and exploration programs.

Finance: Our shareholders and lenders provide access to financial capital, which we put to work by operating our existing facilities and funding our pipeline of development projects and options, and exploration programs.

Relationships: Trust and transparency are essential to the way we operate. We seek to build trust in the communities where we have a presence to help realise the potential of their resources, and we work with our suppliers and customers to apply responsible business practices throughout our value chain.

What we do

Explore: We have more than 25 greenfield exploration partnerships and prospects across the world to discover deposits to underpin our next generation of mines, with a focus on commodities critical to a low-carbon future.

Develop: Our development projects in base metals and pipeline of growth options in various study phases have the potential to produce commodities to support the transition to a low-carbon world.

Mine/Process: We mine and process bauxite, copper, zinc, lead, silver, nickel, manganese and metallurgical coal.

Refine/Smelt: We refine bauxite to produce alumina, we smelt alumina to produce aluminium, and we smelt nickel ore to produce ferronickel.

Market: We generate revenue from the sale of our commodities to a global customer base and purchase raw materials from global markets. We also analyse commodities and their markets to inform our strategic business planning and investment decisions.

Rehabilitate/Close: We undertake progressive rehabilitation where possible and our closure plans are informed by the aspirations and expectations of host communities and countries.

The outcomes we create

We are committed to creating value for our stakeholders, including our people, communities, suppliers, customers, governments and the financial community including our shareholders.

+ Learn more about our stakeholders and impact in our Annual Report at *www.south32.net*.

A DIVERSIFIED PORTFOLIO WITH A BIAS TO BASE METALS

AMBLER METALS
Copper, Lead, Gold, Silver and Zinc

VANCOUVER

HERMOSA
Zinc, Lead, Silver and Manganese

CERRO MATOSO
Nickel

BRAZIL ALUMINA
Bauxite

BRAZIL ALUMINA
Alumina

SIERRA GORDA
Copper, Molybdenum and Gold

BRAZIL ALUMINIUM
Aluminium

- South32-operated operation
- Non-operated operation
- Development project
- Development option
- Office
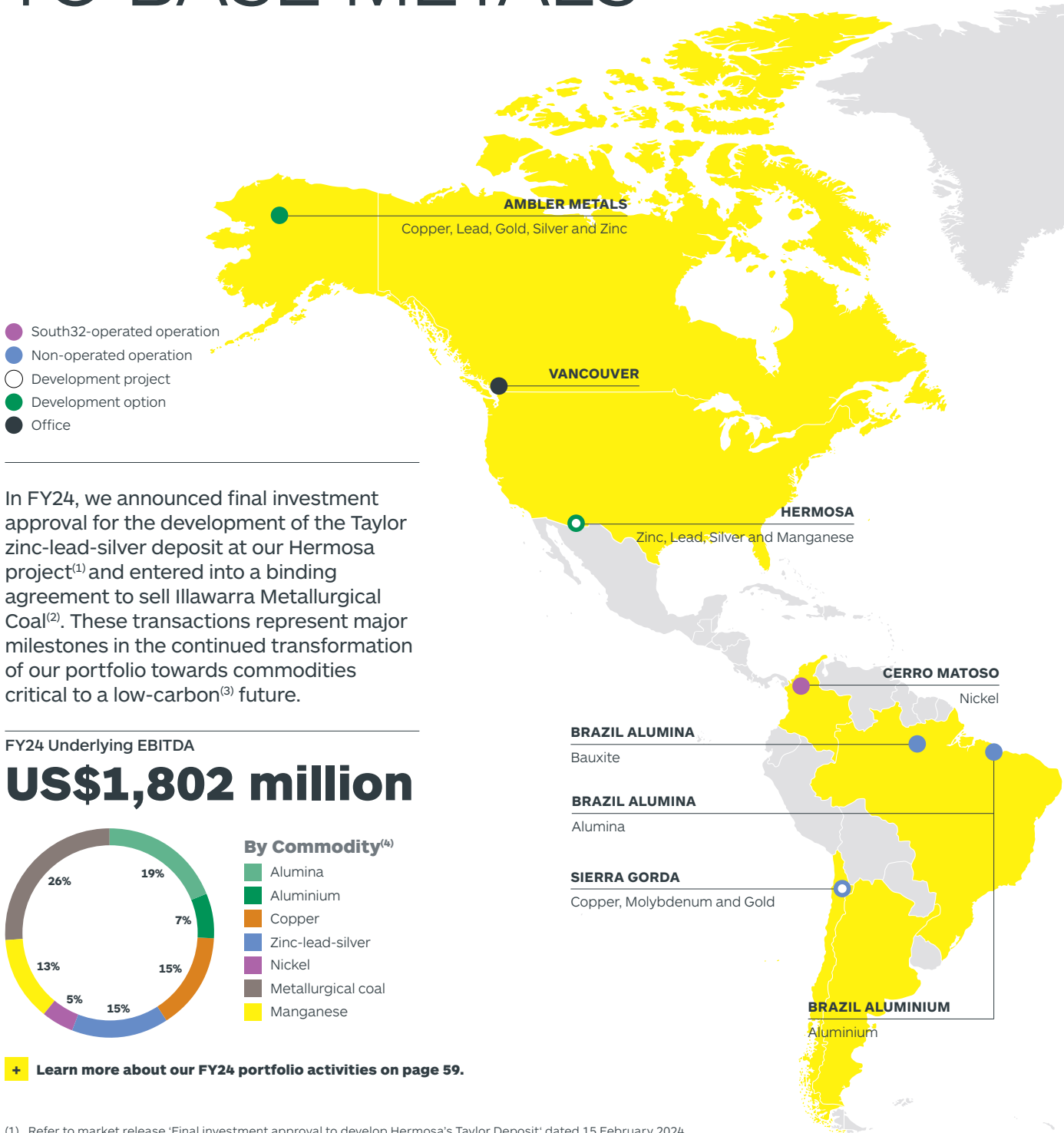
In FY24, we announced final investment approval for the development of the Taylor zinc-lead-silver deposit at our Hermosa p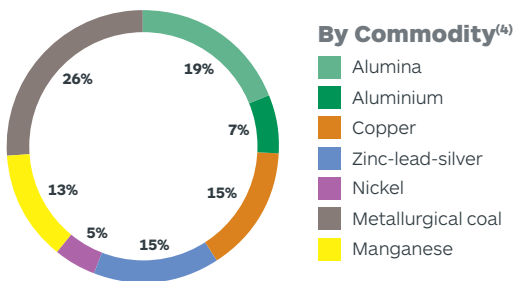roject[1] and entered into a binding agreement to sell Illawarra Metallurgical Coal[2]. These transactions represent major milestones in the continued transformation of our portfolio towards commodities critical to a low-carbon[3] future.

FY24 Underlying EBITDA

US$1,802 million

26%
19%
7%
15%
13%
5%
15%

By Commodity[4]
- Alumina
- Aluminium
- Copper
- Zinc-lead-silver
- Nickel
- Metallurgical coal
- Manganese

+ **Learn more about our FY24 portfolio activities on page 59.**

(1) Refer to market release 'Final investment approval to develop Hermosa's Taylor Deposit' dated 15 February 2024.
(2) In February 2024 we entered into an agreement to sell Illawarra Metallurgical Coal. The agreement became unconditional on 29 July 2024 and is expected to complete on 29 August 2024. Refer to market release 'Sale of Illawarra Metallurgical Coal' dated 29 February 2024.
(3) In this report we use particular terminology in relation to climate change. Definitions of the terms 'goal', 'target' and 'low-carbon' when used in the context of climate change are set out in the Glossary of terms and abbreviations on pages 86 to 91 of this report.
(4) Presented on a proportional consolidation basis and excludes manganese alloys, Hermosa, and Group and unallocated costs. Illawarra Metallurgical Coal (IMC) Underlying EBITDA excludes third party product.

South America

Cerro Matoso

Integrated open-cut mine and smelter

Interest	99.9%
Production (CuEq)	65
Landholdings (ha)	5,063
Employees	947
GHG emissions intensity	12.5
Social investment (US$M)	2.6

Non-operated joint ventures[10]

– Brazil Alumina, 36% share
– Brazil Aluminium, 40% share
– Sierra Gorda, 45% share

Operation in baseline water stress. Learn more on page 43.

Southern Africa

Hillside Aluminium

Smelter

Interest	100%
Production (CuEq)	202
Landholdings (ha)	158
Employees	1,091
GHG emissions intensity	57.7
Social investment (US$M)	7.3

Mozal Aluminium

Smelter

Interest	63.67%
Production (CuEq)	92
Landholdings (ha)	215
Employees	1,036
GHG emissions intensity	11.4
Social investment (US$M)	2.2

South Africa Manganese

Open-cut mine and underground mine

Interest	54.6%
Production (CuEq)	35
Landholdings (ha)	3,322
Employees	1,272
GHG emissions intensity	3.2
Social investment (US$M)	2.3

Australia

Australia Manganese

Open-cut mine

Interest	60%
Production (CuEq)	44
Landholdings (ha)	13,199
Employees	1,037
GHG emissions intensity	2.4
Social investment (US$M)	1.0

Cannington

Underground mine

Interest	100%
Production (CuEq)	79
Landholdings (ha)	121,672
Employees	561
GHG emissions intensity	1.6
Social investment (US$M)	0.4

Worsley Alumina

Bauxite mine and alumina refinery

Interest	86%
Production (CuEq)	160
Landholdings (ha)	386,165
Employees	1,566
GHG emissions intensity	17.2
Social investment (US$M)	0.9

Illawarra Metallurgical Coal

Two underground mines

Interest	100%
Production (CuEq)	147
Landholdings (ha)	48,418
Employees	1,276
GHG emissions intensity	16.9
Social investment (US$M)	1.2

LONDON

SINGAPORE

CANNINGTON
Silver, Lead and Zinc

AUSTRALIA MANGANESE
Manganese ore

PERTH HEAD OFFICE

WORSLEY ALUMINA
Alumina

ILLAWARRA METALLURGICAL COAL
Metallurgical coal

JOHANNESBURG

SOUTH AFRICA MANGANESE
Manganese ore

MOZAL ALUMINIUM
Aluminium

HILLSIDE ALUMINIUM
Aluminium
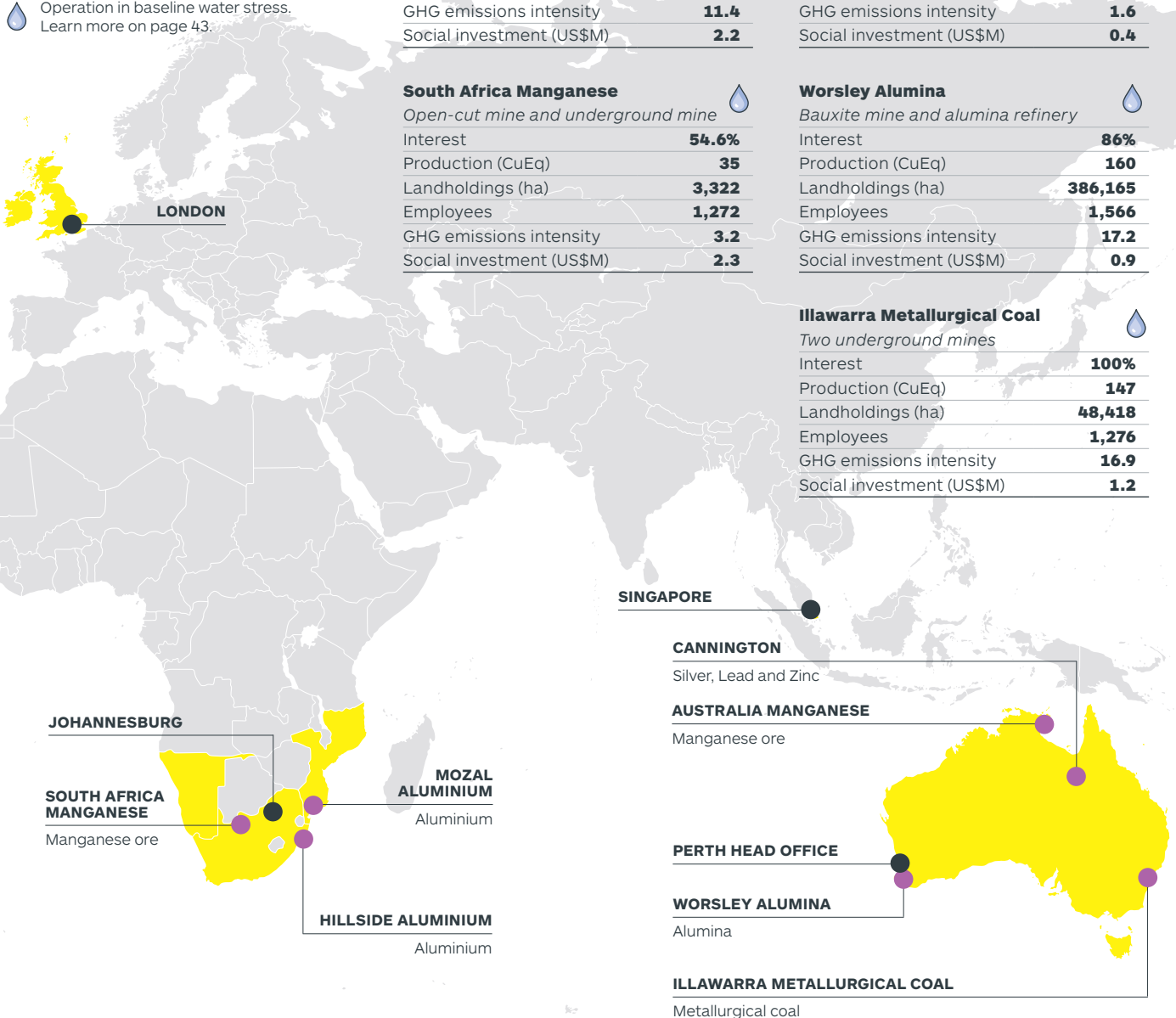
(5) Performance data on this page is displayed for South32-operated operations only and excludes our development projects and non-operated joint ventures, as outlined in our reporting boundaries on page 79.

DEVELOPING NATURAL RESOURCES FOR A BRIGHTER <mark>FUTURE</mark>

Our approach to sustainability aims to balance environmental, social and economic considerations, and to support delivery of our purpose and strategy in a way that creates enduring value for our stakeholders.

At South32, we view sustainability as supporting the needs of the present without compromising the ability of future generations to meet their own needs. It is at the heart of our purpose and underpins the delivery of our strategy.

We are committed to continuously improving our sustainability performance, optimising our positive contributions and minimising our adverse impacts. In FY24, we continued to embed our approach to sustainability across our business, focusing on where we can have the greatest impacts and where we can deliver the most value.

Our approach to sustainability comprises five interconnected pillars which focus on areas that are material to our business and stakeholders. The first of these pillars relates to our people, who are fundamental to delivering our strategy.

Nothing is more important than the health, safety and wellbeing of our people and, as such, the most important commitment we all make at South32 is to our 'safety guarantee'. This unites us in our belief that everyone can go home safe and well, every day, and supports us as we build a safety focused, high performance and values-based culture.

Our Safety Improvement Program is playing a key role in shaping our culture and includes building safety leadership capability across our business. A focus is our global LEAD Safely Every Day program, which aims to form a common understanding of what it means to be a safety leader at South32, embed a consistent approach to safety risk management and empower people to speak up so that together, we can prevent serious injuries and fatalities. Since the launch of LEAD Safely Every Day in FY23, more than 1,500 leaders have completed the program and we have commenced extending this to frontline employees.

We assess our safety performance through a range of both leading and lagging indicators. Our significant hazard frequency, a leading indicator, increased by 34 per cent compared to FY23, indicating a positive reporting culture and increased hazard awareness. Conversely, our lost time injury frequency, a lagging indicator, increased by 19 per cent compared to FY23, underscoring that while we had no fatalities at our operations in FY24, we are still seeing too many serious injuries and we must be relentless in our pursuit of a safer workplace.

We recognise that the risk of both physical and mental harm can be linked to exposure to psychosocial hazards. To address psychosocial risk across our business, in FY24 we continued to progress the development of our new global psychosocial risk framework and we plan to commence implementation in

> **"**
>
> **Our 'safety guarantee' unites us in our belief that everyone can go home safe and well, every day."**

FY25. The framework aims to standardise the way we identify, assess and mitigate psychosocial risks across our business.

To help build a workplace where everyone feels safe, included and respected, our annual Group-wide Your Voice employee survey seeks feedback from our people on their experiences working for us. The feedback from the survey is used to help us continuously improve the workplace experience. In FY24, we saw our highest ever participation rate in the survey, and respondents reported an equal or improved experience across all dimensions of the survey.

Inclusion and respect goes beyond the workplace and into communities, and our commitment to building strong relationships extends to Indigenous, Traditional and Tribal Peoples around the world. Last month, we reaffirmed our commitment to reconciliation in our second Innovate Reconciliation Action Plan (RAP), which focuses on moving forward in a united and respectful way. With more ambitious goals and targets, our RAP aims to strengthen our relationships with and improve outcomes for Aboriginal and Torres Strait Islander Peoples in the areas where we operate.

We also aim to deliver value to the countries and communities where we operate through social and economic development. With local hiring, procurement and social investment being key interest areas for communities, we provide employment opportunities and source goods and services from local businesses where possible. In FY24, we spent more than US$1.1 billion with local suppliers – the highest since our inception – and US$23.6 million on social investment.

At the same time as working to maximise our positive contributions, it is our responsibility to minimise our impacts to the natural environment. During FY24, we continued our program of work to deepen our understanding of present and future impacts and dependencies on nature, including across the value chain. This work will build on our approach to biodiversity

conservation and shape our approach to addressing nature-related risks and opportunities, which we plan to publish in 2025, as well as the work we are doing to enhance our nature-related reporting and disclosures.

To mitigate the impact of our activities on the natural environment, for example land clearing, we integrate progressive rehabilitation into our life of operation planning processes. In FY24, we undertook rehabilitation activities across 416 hectares of land, a 25 per cent increase from FY23.

As our climate continues to change, so will the frequency, magnitude and location of weather and climate events that may impact our business. In FY24, we experienced two extreme weather events in which high intensity rainfall caused disruption to our Cannington and Australia Manganese operations. Conversely, some of our operations were impacted by challenges associated with significantly lower than average seasonal rainfall. We are working hard to build our understanding of the unique present and future water needs of each of our operations, find ways to optimise local water management practices, and improve the resilience of our operations to extreme weather events.

As a global mining and metals company, we have an important role to play in responding to the risks and opportunities of climate change. Our approach aligns with our purpose and strategy and aims to protect and unlock long-term value, enhance our competitiveness in a low-carbon future and build operational resilience.

In 2022, we published our first Climate Change Action Plan (CCAP) outlining the commitments and actions we are taking to address climate change, and we continue to make progress against this. We intend to present our second CCAP to a non-binding advisory vote at our 2025 Annual General Meeting.

A key element in our approach to climate change is reshaping our portfolio towards commodities critical in the transition to a low-carbon world, and our commodity mix today is very different from that of 2015 when South32 was first established. In FY24, we achieved two significant portfolio milestones, with final investment approval for the development of Hermosa's Taylor zinc-lead-silver deposit, and announcing the sale of Illawarra Metallurgical Coal which is expected to complete on 29 August 2024. We will continue to actively seek and invest in opportunities that increase our exposure to commodities needed for the global energy transition.

Decarbonising our operations – particularly those which account for the majority of our operational greenhouse gas (GHG) emissions – continues to be a key focus. In FY24, our operational GHG emissions decreased by six per cent from FY23 levels, and two per cent from our FY21 baseline. As an interim step to achieve earlier GHG emissions reduction at Worsley Alumina, we converted two coal-fired boilers to natural gas, contributing to a 14 per cent reduction in the refinery's FY24 operational GHG emissions against FY21 levels. We also advanced our pipeline of decarbonisation studies, including work to evaluate alternative options for steam electrification.

At both Hillside Aluminium and Mozal Aluminium, we continue to work towards securing a stable, affordable low-carbon electricity supply. At Hillside Aluminium, we have converted 36 per cent of pots to energy efficient technology, and in FY24 we completed a process to understand the cost and availability of renewable energy from South African independent power producers.

Thank you to our teams around the world for your commitment to sustainability in FY24. We are proud of what we have achieved and look forward to building on our sustainability performance progress so that together, we can make a difference for a brighter future.

Graham Kerr
Chief Executive Officer

BUILDING POSITIVE, MEANINGFUL AND RESPECTFUL <mark>RELATIONSHIPS</mark>

Our stakeholders are individuals or groups who may be affected by or interested in our decision-making and activities. Proactive engagement helps us to understand their interests, priorities, and concerns and helps to inform and guide our sustainability approach.

Our people

Employees and agency contractors who work with us.

Our global workforce is made up of almost 10,000 employees and the contractors that work with us. Our people are our most important resource, providing the skills, experience and technical expertise required to run our business, and they are fundamental to our success.

We recognise the importance of proactive, timely and transparent engagement with our people. We engage through a variety of communication channels, including meetings, videos, newsletters, leadership calls, presentations, training, and web-based forums. Our annual Your Voice employee survey is one of the tools we use to obtain feedback to better understand people's experience of working at South32.

Board and leadership engagement with our workforce includes site visits, which provide the opportunity for Directors and senior leaders to better understand the operating context, the challenges our people face, and our culture.

+   Learn more about how we engage with our people on page 21.

Investors

Including shareholders, fund managers, lenders, and bondholders.

Effective two-way communication is important for our investors to exercise their rights and allows us to better understand their needs and expectations, including on sustainability matters.

We maintain an extensive program of engagement with investors involving our Directors and senior leaders, which includes roadshows, briefings, presentations, site tours and meetings, as well as participation in events and forums.

We also engage regularly with representatives from investor-led initiatives, including Climate Action 100+.

Customers

Companies that buy our products.

We sold our commodities to 197 customers in over 30 countries in FY24.

We seek to develop active relationships with our customers and support the responsible use of our products.

We engage with our customers to understand their responsible sourcing and product stewardship needs and expectations. We work with certification bodies, such as the Aluminium Stewardship Initiative, to attain certification against performance standards that reinforce responsible practices and build stakeholder confidence in certain products.

Suppliers

Businesses that we procure goods and services from.

We need surety of supply for the various goods and services we purchase to support business continuity, as well as an understanding of the sustainability-related risks in the supply chains we are purchasing from.

Our supply chain of over 5,800 suppliers is spread across more than 50 countries. We aim to work with suppliers with strong values and standards of conduct and have outlined our expectations in our Code of Business Conduct and Supplier Minimum Requirements, available at *www.south32.net*.

We invest in developing the capacity and capability of local businesses to help them enter the value chains of large companies, including that of South32. In Australia, we engage with Aboriginal and Torres Strait Islander businesses with the aim to increase our procurement of goods and services in line with objectives set in our Reconciliation Action Plan.

+   Learn more about our Responsible Value Chain practices on page 36.

Communities

Communities near our operations, development projects and options, and exploration prospects.

Communities neighbouring or near our operations, development projects and options, and exploration prospects may be impacted directly or indirectly by our activities and business relationships.

We engage with these communities through two-way communication that is proactive, responsive and ongoing. We seek to understand their expectations, aspirations, concerns, and interests, which we consider in the development of operation-specific stakeholder engagement plans. We use these plans to build strong, meaningful relationships and establish transparency and trust.

We aim to work collaboratively with Indigenous, Traditional and Tribal Peoples to preserve cultural heritage and advance opportunities for economic participation and social inclusion.

– **United States:** The Tohono O'Odham Nation, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, the Ak-Chin Indian Community, Pueblo of Zuni, the Hopi Tribe, Mescalero Apache Tribe, White Mountain Apache Tribe, and Pascua-Yaqui Tribe have historical affiliation to the Hermosa project area.
– **Colombia:** There are 25 local communities surrounding Cerro Matoso including 11 Zenú Indigenous organisations and three Afro-Colombian communities.
– **Southern Africa:** Many communities have strong connections to the land with unique tangible and intangible cultural heritage. Traditional groups maintain distinct local customs, particularly near South Africa Manganese in the Northern Cape province where local customs, traditions and living culture are evident.
– **Australia:** Our Australian operations and assets each have unique connections with Indigenous Peoples, these include the Whadjuk People where our head office in Perth is located, the Wardandi, Wilman, Ganeang and Binjareb/Pinjarup Peoples at Worsley Alumina, the Mitakoodi, Yulluna, Bindal and Wulgurukaba Peoples at Cannington, the Anindilyakwa People at Australia Manganese and 70+ Registered Aboriginal groups in and adjacent to Illawarra Metallurgical Coal, within the region of the Dharawal People.

+ **Learn more about how we engage with communities on page 25.**

Governments and regulatory agencies

National, state, provincial and local governments, and regulatory bodies responsible for licensing and regulation.

Our contribution to local economies through our purchase of goods and services, local employment, social investments and the taxes and royalties we pay can be significant.

We engage with governments and regulators on policy and regulatory developments relevant to our business, permitting activities, and other matters of importance, where appropriate.

+ **Learn more about our public policy advocacy on page 35.**

Our approach to tax transparency and payments to governments aligns with the ICMM's Position Statement on Transparency of Mineral Revenues and the Extractive Industries Transparency Initiative, which promotes open and accountable management of mineral resource wealth.

+ **Learn more in our Tax Transparency and Payments to Governments Report 2024 at *www.south32.net*.**

Industry associations

Associations which seek to protect, support, and advance the interests of a specific sector or commodity and where people involved in a specific industry or commodity can network and share knowledge.

Membership of key industry associations provides opportunities to understand, learn and contribute to industry best practice and innovation. Our participation provides an avenue to engage in and influence matters affecting our industry.

+ **Learn more about the industry associations that we belong to at *www.south32.net/industryassociations*.**

Civil society groups

Organisations distinct from government and business which have been voluntarily formed for not-for-profit purposes. They can include community-based organisations as well as non-governmental organisations (NGOs).

Engagement and collaboration with civil society groups can promote shared understanding and learning on issues of common interest.

Our senior leaders meet regularly with civil society groups, such as Market Forces and the Australasian Centre for Corporate Responsibility.

We also monitor NGO activities and campaigns and seek to engage and partner with groups at a local, state, national and international level, where relevant.

+ **Learn more about our environmental partnerships, including with the Australian Wildlife Conservancy, on page 41.**

Joint venture partners

Companies that we have a relationship with through our common participation in a joint venture, joint operation, or joint arrangement.

South32-operated joint ventures are subject to, and are required to comply with, our operating policies, standards, practices, and procedures.

Where a joint venture is not South32-operated, it operates under its own governance framework as established under the relevant joint venture agreement. In these instances, we endeavour to influence our joint venture partners to adopt standards consistent with our sustainability approach as relevant to the joint venture, international standards, and industry best practice through:

– Representation on joint venture management and governance, boards, committees, and councils;
– The exercise of our rights under joint venture arrangements;
– Sharing the knowledge, skills, and expertise of our people; and
– Engaging and collaborating with our joint venture partners on shared goals and values.

DEVELOPING NATURAL RESOURCES TO HELP <mark>CHANGE</mark> LIVES FOR THE BETTER

We view sustainability as supporting the needs of the present without compromising the ability of future generations to meet their own needs. Our approach to sustainability aims to balance environmental, social and economic considerations, and to support delivery of our purpose and strategy in a way that creates enduring value for our stakeholders.

Assessing materiality

Each year we undertake a materiality assessment to identify and assess the sustainability topics that matter most to, and have the greatest impact on, our stakeholders and our business. Last year, our assessment was facilitated by an independent external consultant and involved extensive research and broad stakeholder engagement.

The process for this year's assessment was to refresh the research component of the FY23 assessment and engage with internal and external subject matter experts to validate our material topic selection and prioritisation.

Our material risk profile is used as one of the inputs to the materiality assessment. Similarly, the outcomes of the assessment are used to inform how we group, monitor and report on our sustainability-related risks.

The outcomes of the FY24 materiality assessment, which were reviewed and considered by the Board's Sustainability Committee, include:

– Energy and climate change, health and safety, and Communities and social impact, remain of highest importance;

– Environmental aspects, in particular Biodiversity, Water and Waste (including tailings) have increased in importance, reflecting increased investor, societal and regulatory focus on natural capital impacts and dependencies, and circular economy;

– Human rights has received lower stakeholder focus as a standalone topic in the period assessed. Each of our material topics has a connection to human rights and therefore actual and potential human rights impacts are considered across all the topics; and

– Attracting, developing and retaining talent has increased in importance reflecting increased industry focus on human capital issues such as future workforce design, skills shortages, and labour relations.

While some material sustainability topics are ranked higher in importance to our stakeholders than others, we consider each of these topics as material to our business. Consistent with prior years, our material topics have been organised into thematic chapters and reported under the five pillars of our sustainability approach.

FY24 ranking	Material Topic	Change from FY23
1	Energy and climate change	—
2	Health and safety	—
3	Communities and social impact	—
4	Biodiversity	↑3
5	Water	↑1
6	Attracting, developing and retaining talent	↑4
7	Responsible value chain	↓2
8	Human rights	↓4
9	Business ethics and integrity	↓1
10	Waste (including tailings)	↑4
11	Inclusion and diversity	↓2
12	Cultural heritage	↓1
13	Other emissions, effluents and pollution	—
14	Wider economic contribution	↓2
15	Closure	—
16	Privacy and cyber security	—

↑ Up from FY23   ↓ Down from FY23   — Same as FY23

Sustainability pillar

- Protecting and respecting our people
- Delivering value to society
- Operating ethically and responsibly
- Managing our environmental impact
- Addressing climate change

Governance

Board

Our Board is responsible for our strategy and governance. The Board approves our Sustainability Policy and, with the support of its standing Committees, oversees the governance, strategy, risk management and performance of the South32 Group with respect to material sustainability risks and opportunities.

The Sustainability Committee oversees the sustainability management, performance, assurance and reporting practices of the Group. The Committee oversees the identification and management of sustainability-related risks and opportunities, and the adequacy and effectiveness of systems and frameworks associated with material sustainability matters.

The Risk and Audit Committee oversees corporate reporting, risk management and the assurance practices of the Group. This involves receiving advice from the Sustainability Committee on material sustainability-related risks identified, assessed and monitored in accordance with our system of risk management.

The Remuneration Committee oversees our remuneration and benefits framework to gain assurance that remuneration arrangements are equitable and aligned to the long-term interests of shareholders, and support our purpose, strategy and values. This includes receiving advice from the Sustainability Committee on how sustainability-related considerations should be factored into the remuneration framework and outcomes tied to sustainability-related performance conditions.

The Nomination and Governance Committee oversees the Group's corporate governance practices, monitors significant developments in the law and practice of corporate governance and reviews the skills and experience represented by Directors to ascertain whether they remain appropriate for our purpose, strategy and relevant emerging business and governance issues.

The Board delegates to the CEO the authority to manage the day-to-day affairs of the Group. This includes responsibility for developing and implementing our strategy, annual plan and budget.

+ Learn more in our Corporate Governance Statement 2024, available at *www.south32.net*.

Management

Our CEO and Lead Team are responsible for developing and implementing our Sustainability Policy in accordance with their delegated authority. They are also responsible for identifying and managing sustainability-related risks and opportunities that are material to the achievement of our strategy.

Within our Lead Team, our:

– Chief Operating Officers have responsibility for our operations in Australia, Southern Africa and Colombia, including accountability for the execution of sustainability-related activities at the operations;

– Chief Financial Officer has responsibility for Financial Reporting, Financial Analysis, and Group Risk and Assurance, in addition to other sub-functions;

– Chief Technical Officer (CTO) has responsibility for Health, Safety, Environment and Technical Stewardship, in addition to other sub-functions;

– Chief Legal and External Affairs Officer (CLEAO) has responsibility for Business Integrity, External Affairs, Legal, Government and Sustainability Strategy, in addition to other sub-functions;

– Chief Human Resources and Commercial Officer (CHRCO) has responsibility for Human Resources, Marketing and Supply; and

– Chief Development Officer has responsibility for Exploration, Corporate Development and our non-operated joint ventures.

Governance framework

Our Sustainability Policy outlines our commitment to sustainable development through continuously improving our sustainability performance, optimising our positive contributions, and minimising our adverse impacts by:

| Protecting and respecting our people | Delivering value to society | Operating ethically and responsibly | Managing our environmental impact | Addressing climate change |

This commitment underpins the delivery of our purpose and strategy and guides the five interconnected pillars of our sustainability approach.

Our sustainability approach is further defined through Group-wide governance documents, such as our Code of Business Conduct and Inclusion and Diversity Policy, and a series of 'Our Approach' documents.

Published on our website, the approach documents describe our public commitments and approach to managing impacts, risks and opportunities relating to material sustainability topics, complementing the disclosures in this report. Topics covered include People and Culture, Indigenous, Traditional and Tribal Peoples Engagement, Cultural Heritage, Human Rights, Tailings Management, Biodiversity Conservation, Water Stewardship and Closure.

+ Learn more at *www.south32.net/sustainability*

Implementation of our sustainability approach is supported through internal standards, which define minimum performance requirements for managing sustainability topics. Local systems of work are designed to implement and embed the standards, which are supplemented by procedures that account for local and regional needs and regulatory requirements.

Stewardship programs are designed and delivered by our safety, environment and social performance teams who provide guidance and support on compliance with our internal standards and local requirements, and ways to improve the adequacy and effectiveness of the controls being applied.

A summary of our key internal standards and other governance documents relating to sustainability topics is provided on the next page.

Our sustainability approach continued

Key sustainability-related governance documents

Document	Purpose	Approver
Safety Standard[1]	Defines minimum performance requirements and controls for managing fatality and serious injury risks.	CTO
Health Standard[1]	Defines minimum performance requirements and controls for managing significant health and illness risks.	CTO
Security, Crisis and Emergency Management Standard	Defines security requirements for operations, projects and sites and crisis and emergency management.	CTO
Human Resources Standard	Defines performance requirements for the human resources activities which occur across all stages of employment.	CHRCO
Contractor Management Standard	Defines the end-to-end process and performance requirements relating contractor management.	CHRCO
Inclusion and Diversity Policy	Outlines our commitment to building an inclusive and diverse workforce.	Board
Inclusion and Diversity Standard	Defines expected inclusion and diversity practices across all aspects of people management.	CHRCO
Social Performance Standard	Defines minimum performance requirements for community engagement, social investment, cultural heritage and managing social impacts and human rights risks.	CLEAO
Code of Business Conduct	Sets expected standards of conduct of our employees, Directors, contractors, suppliers and others acting on our behalf.	Board
Anti-Bribery and Corruption Policy	Outlines prohibited conduct and requirements relating to fraud, bribery, and other corruption.	Board
Environment and Climate Change Standard	Defines minimum performance requirements for managing environmental impacts and climate change risks.	CTO
Dam Management Standard	Defines minimum performance requirements for responsible dam management, including the safe operation of tailings storage facilities.	CTO
Closure Standard	Defines processes, accountabilities and key deliverables for closure planning and related activities.	CTO

Risk management

Risk management is fundamental to maximising the value of our business and informing its strategic direction. Effective risk management enables us to identify priorities, allocate resources, demonstrate due diligence in discharging legal and regulatory obligations, and meet the standards and expectations of our stakeholders.

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*), and is delivered through our system of risk management which is aligned to the principles of the International Standard for Risk Management AS/NZS ISO 31000:2018.

We apply the three lines operating model to our system of risk management, which determines how our structures, processes, and organisational roles work together to facilitate strong risk management and assurance.

We report transparent real-time risk data through our risk management tool, Global360, which connects data relating to the management of our risks, events, hazards and assurance actions. In addition to helping us manage our business, reliable data on material risks contributes towards the monitoring and management of our strategic risks. This provides insight into trends and emerging themes that can trigger a review of our business plans or inform a change in strategic direction.

Our internal risk management standard defines minimum requirements for the identification, management and reporting of:

– Material risks[2], which are risks that can materially impact our ability to achieve our purpose, strategy and business plans; and

– Strategic risks, which are risks that can specifically affect our ability to achieve our strategic objectives. They have the capacity to affect all, or a significant part, of our organisation and therefore tend to have significant impacts, both negative and positive.

The Lead Team routinely assesses the effective management of our material and strategic risks. An overview of our strategic and material risks are also reviewed at least annually by the Risk and Audit Committee and Sustainability Committee (sustainability-related risks, including climate-related risks, only), which assist our Board in its oversight of our risk management and assurance practices.

Our strategic risks, several of which relate to sustainability, are monitored by senior leaders and evaluated twice per year[3].

+ **Learn more about our strategic risks on pages 28 to 38 of our Annual Report 2024 at *www.south32.net*.**

(1) Standard and associated procedures are aligned to the International Organisation for Standardisation (ISO) 45001 Occupational Health and Safety Management System Standard 2018 and comply with applicable local laws and regulations.
(2) A material risk is an event that has a Maximum Potential Impact (MPI) that meets or exceeds the MPI threshold set in our internal risk management standard or a Residual Risk Rating (RRR) that exceeds the RRR set in the standard. All risks, including climate-related risks, are assessed in accordance with the same thresholds.
(3) Each strategic risk is allocated a risk owner who must be a member of our Senior Leadership Team.

Guided by international standards and initiatives

Our Sustainability Policy is guided by international standards and initiatives, including the ICMM Mining Principles, the United Nations Global Compact Ten Principles, the United Nations Sustainable Development Goals, the Global Reporting Initiative (GRI), and the Task Force on Climate-related Financial Disclosures (TCFD).

Supporting the United Nations Sustainable Development Goals (UN SDGs)

Our approach to sustainability is guided by, and contributes to, the UN SDGs which are recognised as the blueprint to achieve a better and more sustainable future for all.

While we acknowledge the opportunity for mining industry participants to positively contribute to all 17 of the UN SDGs, our sustainability approach is most strongly focused on the following goals:

Out of the 169 UN SDG targets, we have identified 19 primary UN SDG targets which our activities contribute to. Learn about the UN SDGs and targets that South32 contributes to in our Standards and Frameworks Reporting Index 2024 at *www.south32.net*.

South32 is also a participant company of the UN Global Compact (UNGC) which is the world's largest corporate sustainability initiative. Our 2024 UNGC Communication on Progress submission, which is a key component of our commitment to the UNGC, is available at *https://unglobalcompact.org/what-is-gc/participants/*

Implementing ICMM's Mining Principles

We have been a member of ICMM since our inception in 2015. ICMM's Mining Principles aim to set an ethical and responsible standard for the environmental, social and governance performance for its members.

To enhance the Mining Principles, ICMM has developed a set of Performance Expectations (PEs) that outline how members should manage sustainability issues at both corporate and operational levels, and related position statements on a number of critical industry challenges.

ICMM's Mining Principles, position statements and PEs are reflected in our sustainability-related governance documents, and their implementation is supported by operational-level validation, assurance and disclosure.

Addressing ICMM's Performance Expectations

In line with ICMM requirements, each of our operations completed an ICMM PE self-assessment in 2022. A self-assessment was also completed at the corporate level.

At least every three years, our operations are required to update their self-assessments and are subject to third-party validation, pursuant to a schedule determined by prioritisation criteria.

In FY24, self-assessments were updated for Cannington, Hillside Aluminium and Mozal Aluminium. More information about these assessments and our alignment to the PEs is available in our Standards and Frameworks Reporting Index 2024 at *www.south32.net*.

Our sustainability reporting

We are committed to transparently reporting our sustainability performance and providing clear and meaningful disclosures.

As demonstrated in our Standards and Frameworks Reporting Index 2024, available at *www.south32.net*, we prepare our sustainability reporting in accordance with applicable GRI Standards and the recommendations and recommended disclosures of the TCFD, and in alignment with the member requirements of ICMM.

The Index also demonstrates how we are pursuing alignment with the Sustainability Accounting Standards Board (SASB) Standards, our assessment against the Climate Action 100+ Net Zero Company Benchmark, and our alignment with the UNGC Ten Principles.

We support global and industry efforts to develop a global baseline for sustainability reporting standards. In FY24, we participated in ICMM's Mining Standards and ESG Reporting Working Groups and contributed to the development of the GRI Mining Sector Standard which was published in February 2024.

Building on our TCFD disclosures, in FY24 we commenced preparation for the expected implementation of mandatory climate-related financial reporting in Australia, including identifying enhancements necessary to meet future reporting requirements under the draft Australian Sustainability Reporting Standards.

Building on our FY23 activities to pilot aspects of the Taskforce on Nature-related Financial Disclosures (TNFD), in FY24 we completed a gap analysis of our data and reporting against core disclosure metrics and recommended disclosures of the TNFD framework. Additionally, through ICMM we contributed to the TNFD's Sector Guidance for Metals and Mining, which was published in July 2024. These activities will guide the work we are doing to define our approach to addressing nature-related risks and opportunities and associated disclosures. Learn more on page 38 of this report.

Assurance

Our assurance process is a combination of reasonable and limited assurance. Further information about assured sustainability information can be found in the FY24 Independent Assurance Report from KPMG Australia on pages 81 to 85 of this report. KPMG Australia is also South32's independent auditor.

Measuring sustainability performance

We recognise that measuring and reporting transparently on our sustainability performance builds trust among our stakeholders in the way we address our impacts and manage risks and opportunities. This includes setting clear targets and key performance indicators (KPIs), and tracking, measuring, and disclosing our performance against them.

We measure and track our sustainability performance using a range of metrics and measures detailed in our Sustainability Databook 2024 at *www.south32.net*.

Linking sustainability performance with reward

A key component of our employee reward framework is our short-term incentive (STI) which aims to reward business and individual performance in the performance year. A key input of the STI is the Business Scorecard which comprises financial and non-financial measures. Thirty-five per cent of our FY24 Business Scorecard was assessed against sustainability-related measures as detailed in Table 1.

Since FY22, 20 per cent of the long-term incentive portion of the remuneration of our CEO and Lead Team has been directly linked to our response to climate change and the transition of our portfolio toward commodities required for a low-carbon future. Performance against these measures will be assessed by the Board at the end of the four-year performance period. Annual progress updates are provided in our Remuneration report in our Annual Report 2024, available at *www.south32.net*.

Our Sustainability Linked Loan

In 2021, we refinanced our syndicated multicurrency revolving credit facility, securing US$1.4 billion of commitments from lenders to 2026 and establishing it as a Sustainability Linked Loan (SLL)[4].

The SLL has three KPIs with sustainability objectives relating to GHG emissions reduction, energy efficiency and water efficiency. Each KPI has an annual target based on an agreed trajectory through the loan tenor. Our KPI performance determines the sustainability margin adjustment which is applied annually.

+   **Learn more about our reward framework in our Annual Report 2024 at *www.south32.net*.**

Table 1 – FY24 Business Scorecard (sustainability-related measures)

FY24 performance target	FY24 performance outcome
Health and safety	
At least 90 per cent of LEAD Safely Every Day learning activities completed by leaders.	96 per cent of LEAD Safely Every Day learning activities were completed by leaders.
Significant hazard to significant event near miss reporting ratio of more than 15.	The significant hazard to significant event near miss reporting ratio at the end of FY24 was 21.
A 20 per cent reduction in the number of people exposed to potential material health exposures above 200 per cent of the Occupational Exposure Limit (OEL) compared to the FY23 baseline.	Potential material health exposures above 200 per cent of OEL decreased by 10.5 per cent compared to the FY23 baseline. Enhancements to controls led to substantial (>30%) reductions in OEL exposures above 200 per cent at Australia Manganese, Hillside Aluminium and Worsley Alumina, which were partially offset by exposure increases at other operations. Projects to target exposure reductions are underway and will continue into FY25.
A 60 per cent reduction in the number of injuries and acute illnesses[5] associated with a potential fatality compared to the FY23 baseline.	The number of injuries and acute illnesses associated with a potential fatality increased by 12 per cent compared to the FY23 baseline.
A year-on-year reduction in lost time injury frequency (LTIF).	LTIF was 1.9, an increase from FY23 LTIF of 1.6.
A reduction in total recordable injury frequency (TRIF) from the FY22 baseline.	TRIF was 5.1, which is a five per cent reduction compared to the FY22 baseline.
People and culture	
Achieve our annual inclusion and diversity targets.	One out of four of the targets for the representation of women in the workforce and one out of two of the targets for the representation of Black People in our South African workforce were achieved. Our pay equity review was completed, investing US$292,000, to improve pay equity and meeting our target.
Deliver all activities on the annual inclusion and diversity action plan.	All activities on the annual inclusion and diversity action plan were completed.
Maintain or improve average inclusion index scores compared to FY23.	Our inclusion index score, as measured in the Your Voice employee survey, improved by 0.8 per cent compared to FY23[6], which exceeded target.
Partnering with communities	
Implement social investment plans on time and on budget.	Social investment plans were implemented on time and on budget and we invested US$23.6 million in community initiatives.
Apply our social investment impact measurement framework to South Africa Manganese and Hillside Aluminium economic development plans.	The social investment impact measurement framework was applied to the South Africa Manganese and Hillside Aluminium economic development plans.
Introductory human rights training completed by all targeted roles and made available to the wider workforce.	Introductory human rights training was completed by 95 per cent of targeted roles and made available to the wider workforce.
Managing our environmental impact and addressing climate change	
Deliver contextual water target milestones to agreed plan and achieve the FY24 target water use efficiency outcome as defined within our Sustainability Linked Loan (SLL) framework.	Six out of seven contextual water target milestones were met and we exceeded the FY24 stretch outcome for water use efficiency as defined within the SLL.

    FY24 Business Scorecard sustainability-related performance targets that were achieved.

---

(4) Extension options to the SLL have since been granted, with US$1.4 billion now available until 2027 and US$1.3 billion until 2028.
(5) Includes incidents that result in first aid treatment, medical treatment, restricted work, lost time, or more severe.
(6) Given the agreement to sell Illawarra Metallurgical Coal and focus on recovery efforts following Tropical Cyclone Megan at Australia Manganese, employees at these operations did not participate in the FY24 Your Voice employee survey. Survey results presented in this report are calculated on re-baselined data to support year-on-year comparison against the same operations in scope.

FY24 performance and progress highlights

We are committed to continuously improving our sustainability performance, optimising our positive contributions and minimising adverse impacts. A summary of some of our sustainability performance highlights and progress for FY24 is provided below, with further information on each point available in the relevant chapter of this report.

Protecting and respecting our people

- No fatalities at our operations and improved our total recordable injury frequency by 14 per cent compared to FY23
- Continued to implement our global, multi-year Safety Improvement Program
- Deployed a new discussion series on the role of bystanders in creating safe and respectful workplaces
- Achieved an 85 per cent participation rate in our annual Your Voice employee survey
- Updated our Group-wide Inclusion and Diversity (I&D) Policy and progressed the priorities in our FY24 I&D plan
- Deployed our new global employee value proposition - the 'South32 Experience'

+ **Learn more at pages 16 to 24.**

Delivering value to society

- Contributed US$23.6 million towards community initiatives and expanded the application of our social investment impact measurement framework
- Paid US$621 million in taxes and royalties to governments where we operate
- Developed our second Innovate Reconciliation Action Plan, launched in July 2024
- Increased procurement from local suppliers by 14 per cent and from Aboriginal and Torres Strait Islander businesses by 11 per cent, against FY23 levels
- Established a dedicated Workforce Development Taskforce at Hermosa to champion local hiring within Santa Cruz County

+ **Learn more at pages 25 to 31.**

Operating ethically and responsibly

- Conducted an externally facilitated assessment of our salient human rights issues and provided introductory human rights training to over 1,800 of our people
- Launched a new external portal to enhance our engagement with suppliers
- Undertook enhanced modern slavery risk due diligence on over 80 per cent of the vessels chartered in FY24 and joined the Sea Cargo Charter
- Contributed to nature- and climate-related public policy development
- Progressed Worsley Alumina's certification against the Aluminium Stewardship Initiative's Performance Standard, with outcomes expected in H1 FY25

+ **Learn more at pages 32 to 37.**

Managing our environmental impact

- Worked to deepen our understanding of nature-related impacts, dependencies, risks and opportunities, including in the value chain
- Undertook progressive rehabilitation across 416 hectares of land, a 25 per cent increase from FY23
- Continued to implement biodiversity management plans at our operations and our biological monitoring and cultural resources protection program at Hermosa
- Improved our operational water efficiency to 68.4 per cent
- Worked towards GISTM[1] alignment for our low to high consequence tailings storage facilities, building on the conformance achieved in 2023 for very high consequence facilities
- Progressed closure engineering studies and stakeholder engagement for our two operations nearing closure

+ **Learn more at pages 38 to 51.**

Addressing climate change

- Approved the development of Hermosa's Taylor zinc-lead-silver deposit[2] and agreed to sell Illawarra Metallurgical Coal (IMC)[3] and our interest in the Eagle Downs metallurgical coal project[4], continuing our portfolio transformation toward commodities critical for a low-carbon future
- Reduced our reported operational GHG emissions by six per cent from FY23 and two per cent from our FY21 baseline
- Converted two of Worsley Alumina's coal-fired boilers to natural gas, contributing to a 14 per cent reduction in the refinery's operational GHG emissions against FY21 levels
- Exceeded our 67 per cent target for post drainage capture efficiency of coal seam gas at IMC's Appin mine
- Continued to work with key stakeholders towards securing stable and affordable low-carbon energy solutions for our aluminium smelters in Southern Africa
- Implemented a new tool to enhance our estimation and reporting of Scope 3 GHG emissions
- Continued to embed potential physical climate change impacts into our life of operations, system of risk management and governance
- Participated in cross-industry technology and innovation initiatives and engaged on climate-related policy developments and regulatory reform

+ **Learn more at pages 52 to 78.**

(1) Global Industry Standard on Tailings Management.
(2) Refer to market release 'Final investment approval to develop Hermosa's Taylor Deposit' dated 15 February 2024.
(3) Refer to market releases 'Sale of Illawarra Metallurgical Coal' dated 29 February 2024 and 'Illawarra Metallurgical Coal Sale Unconditional' dated 29 July 2024.
(4) Refer to media release "Agreement to divest interest in Eagle Downs" dated 12 February 2024. The transaction completed on 12 August 2024.

HEALTH AND SAFETY

Our activities of mining, processing, refining and smelting present health and safety hazards which can have significant consequences if not appropriately addressed. Our health and safety approach seeks to identify and reduce the risk of exposure to these hazards and to create a healthy, safe and inclusive workplace for our people.

Nothing is more important than the health, safety and wellbeing of our people. At South32, we are united by our belief that everyone can go home safe and well, every day.

Our internal health and safety standards define Group-wide expectations for safety leadership and how material health and safety risks must be identified, assessed and managed. Local systems of work are designed to implement these internal standards and address local requirements, with frontline leaders responsible for verifying, reporting, and improving performance.

Through stewardship programs, the Technical function provides guidance and support on compliance with our internal standards and local requirements, the adequacy and effectiveness of controls being applied, and identifies examples of good and best practice for sharing across the business.

FY24 performance

We use a range of metrics to assess health and safety performance, including lagging performance indicators which focus on incidents that have occurred and leading indicators which aim to detect and provide advanced warning of latent safety hazards. These metrics are in our Sustainability Databook 2024 at _www.south32.net_, with a summary provided below.

We also set annual health and safety performance targets in our Business Scorecard which is a key determinant of short-term incentive payments made to eligible employees. Our performance against the targets set for FY24 is detailed on page 14.

Table 2 – Health and safety performance

Performance metric[1]	FY24	FY23	FY22	FY21	FY20
Fatalities from health and safety incidents	**0**	2	1	1	1
Lost time injury frequency (LTIF)	**1.9**	_1.6_[2]	2.0	1.7	1.6
Total recordable injury frequency (TRIF)	**5.1**	5.9	5.3	4.3	4.2
High-potential injury and illness frequency (HPIIF)	**0.5**	0.5	-	-	-
Total recordable illness frequency (TRILF)	**1.3**	1.3	1.4	1.1	1.5
Total significant hazard frequency	**122**	92	72	41	25
Significant hazard to significant event near miss ratio	**21**	15	-	-	-

Our TRIF decreased by 14 per cent to 5.1 compared to 5.9 in FY23 and met our scorecard target of an improvement from the FY22 baseline of 5.3. The year-on-year decrease reflects significant improvement in the TRIF for Illawarra Metallurgical Coal, as well as an improvement in contractor TRIF from 6.3 in FY23 to 4.9 in FY24.

Although we saw a year-on-year decrease in recordable injury events, our LTIF increased to 1.9 from 1.6 in FY23, mostly driven by an increase in lost time injuries at our Australian operations, not meeting our scorecard target of a year-on-year reduction.

Reflecting our focus on significant injury elimination and commitment to transparency in disclosing our sustainability performance, we have disclosed our HPIIF for the first time this year. This metric represents the frequency of injuries and illnesses which have the potential for significant harm[3] and was unchanged year-on-year.

We have also for the first time disclosed our significant hazard to significant event near miss ratio. This leading indicator represents how well we are identifying hazards in comparison to the number of near miss events that are occurring. Our FY24 ratio of 21 met our scorecard target of a ratio greater than 15 and together with our sustained increase in significant hazard frequency are indicative of improved hazard awareness and a positive reporting culture.

We disclose fatalities for contractor activities that are associated with our operations but take place in locations where we do not have control. In FY24, an employee from a company contracted by South Africa Manganese lost their life in a tragic off-site road trucking accident. The contractor company is investigating the incident, with our support as required. South Africa Manganese is working with trucking contractors to implement real-time tracking of fleets transporting ore to monitor driver behaviours and has commenced trialling fatigue monitoring technology. In FY25 we intend to further support these contractor companies to utilise this monitoring system and analytical data to assess the effectiveness of their road safety controls.

(1) Frequency rates are per million hours worked. Incidents are included where South32 controls the work location or controls the work activity.
(2) Seven injuries which occurred in FY23 have been reclassified from restricted work cases to lost time cases, resulting in an increase in LTIF from 1.4 to 1.6.
(3) Significant harm includes incidents with the potential to cause impairment to ≥30 per cent of the body or result in a fatality.

Our 'safety guarantee'

We deliver our purpose and strategy by aligning our workforce behind commitments, known as 'breakthroughs', which shape our annual business plans and help us to focus on what's important. Our first breakthrough is 'we all guarantee that everyone goes home safe and well'.

To promote hazard identification and management of safety risks, we ask our people to reflect on whether they can guarantee both their safety and that of their colleagues when executing their role and planned tasks. If the answer is no, the expectation is that they stop and ask what would need to be done differently to provide that guarantee. Work should only proceed when it is safe to start. We use our 'safety guarantee' to instil a belief that everyone can go home safe and well, create a sense of chronic unease[4], reduce complacency, and assist to reduce risk tolerance in relation to safety and health.

SAFETY

We remain committed to improving our safety performance. We must continue to learn from past fatalities and significant incidents, and proactively apply critical controls to known fatal risks.

Safety Improvement Program

In FY22 we launched our global Safety Improvement Program, a multi-year program of work with the aim to achieve a step change in our safety performance. The program was informed by a comprehensive review of our safety management approach which was conducted with support from an external consultant specialising in workplace safety transformation, with whom we continue to partner.

The program focuses on shifting mindsets through leadership, empowering our people to take responsibility for their own safety and the safety of others, reducing risks with effective controls, and enhancing our systems and metrics. In FY24, we continued to build on these areas.

Shifting mindsets through leadership

A culture that prioritises safety as a core value can enhance individual and collective contributions to safety performance. Our Safety Improvement Program includes significant focus on developing in safety leadership through the delivery of our global LEAD Safely Every Day (LSED) program.

Our LSED program includes safety leadership capability workshops and coaching, and has been delivered to over 1,500 leaders since its launch in FY23. The program is leader-led and locally facilitated, allowing for customisation as appropriate for the different locations and operating contexts of our operations, projects and offices. While the program's rollout is tailored, the overall objectives remain to form a common understanding of what it means to be a safety leader at South32, embed a consistent approach to safety risk management, and empower our people to speak up so that together

we can prevent serious injuries and fatalities.

In FY24, we commenced extending the LSED program to frontline employees, a sub-set of contractors who perform high-risk work at our operations, and functional roles that support them. The frontline rollout, which focuses on our 'safety guarantee', hazard identification and risk management and speaking up, will continue in FY25 as we progress our aim for all employees to participate in the program.

Positive safety interactions between leaders and team members are essential for embedding an organisational focus on our 'safety guarantee'. In FY24, we launched a new visible felt leadership guideline. The guideline defines our expectations for leaders to spend time in their workplaces engaging with people on our 'safety guarantee', observing how work is done, verifying that critical controls are in place and coaching their teams to take corrective action where necessary.

We also engage with our people on health and safety issues through office- and operation-specific health and safety committees and through health and safety representative programs. These typically include peer-appointed representatives who promote health and safety improvement initiatives and assist with the management of safety-related issues and projects.

Our annual Your Voice employee survey seeks feedback from our employees on their experience at South32, including their perspectives on our 'safety guarantee' and how we address safety and workplace conduct concerns.

Fatality and serious injury elimination

We continue to focus on fatality and serious injury elimination. Our safety performance monitoring incorporates precursors to serious incidents, with a particular focus on hazards and events with the potential to lead to serious injury and fatality. This proactive and predictive approach enhances our ability to identify and direct our efforts towards managing these material risks.

Our internal safety standard defines safety-related fatality risks, such as falls from height, electrical energy, vehicle interactions, crushing and entanglement, and minimum critical controls for their management. In FY24 we reviewed our risk management approach for each of the fatality risks identified in the safety standard. This involved assessing how the fatal incident might occur and the adequacy of controls to minimise the impact if the event were to take place, which helped inform revisions made to the standard during the year.

We empower and expect our people to act (including by stopping work) when there is a potential or actual threat to health and safety. Our risk and event management system, Global360, supports our workforce in their efforts to proactively identify and report hazards and events. We investigate actual and potential significant events and hazards in accordance with our internal investigation protocol to capture learnings and improve controls. Our people are protected against reprisal for reporting a hazardous situation or acting on a safety concern. These mechanisms are outlined in our Speak Up Policy and embedded in our safety standard.

In FY24 we commenced work to broaden the focus of our safety stewardship program from compliance to overall system effectiveness. This work will provide a holistic review of our safety system structure, design and processes, as well as interactions with other Group systems such as our asset management and contractor management systems.

---

(4) Chronic unease in safety management is described as having capacity for anticipation, maintaining a state of unrelenting watchfulness and the opposite of complacency.

Reducing light vehicle and mobile equipment risk across our business

Light vehicles and mobile surface equipment (LVME) remains the top contributing hazard for actual or potential significant events at our operations and was a priority focus area in FY24.

At the start of the year, our Australian operations worked together with the Technical function and other key stakeholders to identify possible LVME risk reduction strategies. After reviewing several options, the Earth Moving Equipment Safety Round Table (EMESRT) nine-layer model was identified as the most suitable approach. The EMESRT model applies nine layers of different controls that progress from minimising exposure, detecting and deflecting potential threats and intervention to avoid collision. A global mobile equipment collision avoidance project was subsequently formed to support our operations to implement the EMESRT model and develop local operational capability and technical expertise.

An outcome of this work in FY24 was the construction of a dedicated roadway at the Mamatwan mine at South Africa Manganese. The road was constructed to segregate light vehicles and mobile surface machines from pedestrians and heavy mobile equipment at the mine, including front end loaders and haul trucks. Prior to the construction of the dedicated roadway, up to 10 trucks and two light vehicles per hour were sharing the same road access. This segregation control has led to the downward revision of fatality and serious injury risk associated with LVME interactions at the operation.

Several trials are also underway at our operations, testing the use of technologies to reduce vehicle interaction risk that are related to a number of causes, including driver fatigue, vehicle blind spots and vehicle-to-vehicle proximity. This work will be a key focus area for FY25.

HEALTH

Health risks associated with our mining, processing, refining and smelting activities include exposure to airborne contaminants and hazardous substances, non-ionising radiation and communicable and infectious diseases.

Our approach to managing material health risks includes identifying material health hazards and setting thresholds for occupational exposure (Occupational Exposure Limits (OELs)) that are considered safe and are not likely to cause adverse health impacts. These limits are set in accordance with legislative limits, are informed by independent expert guidance and the latest scientific evidence, and are subject to periodic review.

We implement a range of controls to prevent and reduce the risk of OEL exceedances. These include proactive controls such as real time environmental monitoring and minimum mandated controls in the form of ventilation systems, dust control equipment and respiratory protective equipment for our people. Additionally, the risk of inhalation of hazardous chemicals is managed through processes for the safe use, clear labelling and secure storage of chemical substances. Reactive controls include health surveillance, biological monitoring to assess possible health effects from an occupational exposure, and reporting and investigating exceedances to understand root causes and how control effectiveness can be improved.

Our employees and contractors have access to occupational health services, including medical surveillance and screening, to help to prevent and detect early-stage adverse health effects from occupational exposures. Non-occupational employee health services cover chronic disease management, education, and referral for non-occupational related conditions.

Developments in the effective management of material workplace and environmental exposures are monitored to inform our approach and occupational exposure thresholds.

We provide risk-based preventative health measures at our workplaces, including access to fitness facilities, general vaccines, and malaria and HIV/AIDS programs, where applicable. HIV/AIDS management is embedded in the occupational health processes at our Southern African operations and involves promotion of HIV counselling, testing and illness management. Positive cases are referred for treatment and we offer follow up as part of our chronic illness management program.

Community exposure to air emissions, such as dust, is monitored and managed at and in the vicinity of our operations. Our health standard defines the minimum requirements for monitoring programs when a potential community health risk is identified.

Psychosocial risk management

Psychosocial risk is the likelihood of physical or mental harm from exposure to psychosocial hazards, including poor work and workplace design, bullying, and harassment. We aim to eliminate or minimise these hazards across our operations and offices.

In FY24, we progressed the development of our new global psychosocial risk framework which aims to standardise the way that we identify, assess, and mitigate psychosocial risks across our business. We plan to commence implementing the framework in FY25, starting with our Australian operations.

Our people are encouraged to raise awareness of, and encourage behaviours that support, health and wellbeing. Learn more about our approach to workplace conduct on page 23.

Employees have access to our employee assistance program, which offers confidential counselling, and other mental health initiatives designed with the aim of supporting our people to feel safe and valued.

Training and competency

Effective safety risk management depends on our workforce being adequately trained and equipped with the right competencies for the work they do. Training frameworks are developed and regularly reviewed in accordance with our internal training standard.

Job-related competencies are incorporated into our training and skills analysis, in line with the safety standard and as required by local laws. Skills matrices are developed and reviewed at least every two years to identify capability development requirements, including training requirements for material safety risks.

Training, engagement, and awareness activities include:

– Health and safety inductions for new employees and contractors, covering training on potential material health and safety exposures in the workplace;

– Safety leadership training and coaching for leaders and frontline workers, setting safety leadership expectations and embedding a consistent approach to safety risk management across our business;

– Ongoing risk-based health and safety training for applicable employees and contractors;

– Sharing health and safety information with employees and contractors across our business;

– Engaging our workforce in safety decision-making with the appointment of health and safety representatives, health and safety committees, and in safety-related meetings; and

– Empowering our people to identify hazards, assess risks, and contribute to workplace inspections and event investigations.

Contractor health and safety

Contractors represent a large proportion of our workforce. In FY22, we launched a significant program of work aimed at improving the way we engage and manage contractors across our business, with a specific focus on health and safety.

In FY23, we designed and commenced implementing our internal contractor management standard, which defines minimum performance requirements and processes for safe contractor management. In FY24, we reviewed the effectiveness of these processes and progress with implementation at a sample of operations to seek assurance that our requirements for contractor activities are clearly defined and understood. We also extended our annual Your Voice employee survey to a sub-set of agency contractors for the first time to seek feedback on their experience of working with us.

Our focus for FY25 will be on enhancing our performance monitoring and risk management tools, as we continue to embed and refine the contractor management standard.

> ### Improving safety outcomes in exploration drilling
>
> Innovation and technology can play an important role in improving our safety performance.
>
> In FY24, we identified an opportunity to trial an automated, hands-free rod handling system prototype. The Evolution Drill Rig prototype, operated by DDH1 Drilling, aims to improve safety performance without reducing productivity by removing the manual rod handling process during drilling.
>
> Through Innovate32, our approach to better enable innovation at South32, funding was granted for a 12-month trial of the prototype at the Jessica and Cararra exploration projects in the Northern Territory, Australia.
>
> Following successful trial outcomes, we will look to deploy the system at other South32 exploration projects and operations.

Security and critical incident management

Our security, crisis and emergency management (SCEM) standard defines minimum performance requirements and controls for responding to critical incidents and emergencies, with the aim of preventing or mitigating potential impacts to people, communities and the environment.

The standard requires that plans are developed, implemented, appropriately resourced and routinely exercised to mitigate material risks and to deliver a well-coordinated emergency response. Along with detailed SCEM plans, each of our operations have well-resourced emergency response and incident management teams with business continuity planning in place to manage potential events.

In FY24, we progressed the implementation of organisational enhancements to our SCEM approach and business resilience strategy. These include governance and software enhancements to assist our operations with emergency command, control and communication. In FY25, work will continue to embed these changes, with a focus on individual and team capability development and response effectiveness.

Security practices

The SCEM standard also defines minimum performance requirements for managing security risks at our operations and projects, including conformance with the Voluntary Principles on Security and Human Rights (VPSHR).

We engage dedicated and professionally trained security teams to protect people and assets at our operations. Security providers at our operations must verify that they comply with the VPSHR. Additionally, private security providers must meet the requirements of the International Code of Conduct for Private Security Providers. All externally contracted security providers are required to complete training aligned with the VPSHR every two years[5].

We continue to review and improve our security approach, taking into consideration each operation's unique operating context. In FY24 this work included completing a review of our security risk management practices at Australia Manganese, which resulted in updates to key controls, enhancements to our stakeholder engagement approach and additional de-escalation training for our security team.

Another focus area is how we respond to potential unrest within communities and support the rights of communities to protest while mitigating safety and production risks. In FY24, this work included engaging a specialist security provider to support a review of security-related practices at South Africa Manganese, the outcomes of which informed enhancements to organisational structures, response procedures, security infrastructure and our community engagement approach at South Africa Manganese and Hillside Aluminium.

---

(5) Including our internally developed VPSHR training or open-source training modules allowing providers to implement tailored training modules relevant to the operating context and risks. Metrics relating to VPSHR training are provided in or Sustainability Databook 2024, at *www.south32.net*.

PREVENTING AND ADDRESSING SEXUAL HARASSMENT

Sexual harassment is a workplace hazard that can cause both physical and psychological harm to our people. We continue to evolve our approach to proactively preventing sexual harassment and other inappropriate workplace behaviours within the context of our 'safety guarantee'.

Legislative changes in Australia have introduced a 'positive duty' on organisations to take reasonable and proportionate measures to eliminate, as far as possible, unlawful workplace conduct including sexual harassment. In FY24, the Australian Human Rights Commission issued Positive Duty Guidelines, outlining seven standards organisations are expected to satisfy in meeting their positive duty obligations.

In FY24, we completed a gap assessment against the seven standards and have commenced work to address identified opportunities to improve our approach which mainly relate to our risk management and reporting practices.

Our approach to preventing and addressing workplace sexual harassment involves:

1. **Leadership:** Our Board and senior leaders receive briefings from external and internal presenters to maintain knowledge of their health and safety obligations and about the drivers and impacts of unlawful workplace conduct. In FY24, this included an external briefing on the management of workplace sexual harassment risk to enhance knowledge on these critical issues, including the changing legislative landscape and societal expectations. The Board also participated in our FY24 Active Bystander discussion series.

   Deployment of our LEAD Safely Every Day training program continued in FY24 as part of our global Safety Improvement Program.

   + Learn more about this program on page 17.

2. **Culture:** Shaping a safety focused, high performance and values-based culture where everyone feels safe, included and respected at work is a key focus for our Board and leadership. Our South32 culture is a key enabler in embedding safe and sustainable business practices to demonstrate our 'safety guarantee' that everyone goes home safe and well, every day.

   + Learn more about how we monitor and shape our culture on page 21.

3. **Knowledge:** Since FY23, we have delivered our Living our Code discussion series which are leader-led, small group discussions about acceptable and unacceptable workplace behaviours. In FY24, we developed and launched a new Active Bystander discussion series, focused on the important role of bystanders in helping to reduce unsafe and disrespectful behaviours.

   + Learn more about this training on page 23.

4. **Risk management:** We define and manage sexual harassment as a material health and safety risk and from FY25 we will manage the sexual harassment risk under our global psychosocial risk framework.

   During FY24, we completed comprehensive sexual harassment risk assessments for our operations and offices[6]. This involved assessing the risk for sexual harassment to occur in the unique context of each location, as well as identifying proactive and reactive controls.

   In addition, we reviewed the physical security controls at our operations against Group-wide requirements. The reviews were conducted using our physical security (sexual harassment) assessment tool which we developed in FY23 to support the application of security management principles and security control measures to mitigate the risk of sexual harassment in the workplace. The tool is used by management and leaders at our operations to consider the design and operating effectiveness of physical security controls such as CCTV, lighting, duress alarms, communications, signage and security personnel.

   Risks and improvement opportunities identified through these assessments are being managed through our risk management system.

   Greater inclusion and gender diversity in our workplaces can help to reduce the risk of sexual harassment. We track performance against a series of measurable objectives aimed at improving inclusion and diversity. Our annual inclusion and diversity plan outlines a range of actions and initiatives to drive progress towards greater inclusion and diversity.

   + Learn more on page 22.

5. **Support:** We encourage and support our people to report unacceptable workplace behaviour, including through our confidential, global whistleblower hotline, EthicsPoint.

   We provide our people with access to mental health and wellbeing support materials. Employees have access to our employee assistance program, which offers confidential counselling.

6. **Reporting and response:** All reported sexual harassment events are investigated. From FY25, we have made reporting enhancements so that our CEO and the Board's Sustainability Committee are informed specifically on reported sexual harassment events on a regular basis.

   Significant events (i.e. those which exceed a pre-defined materiality threshold) are reported in more detail to both the Sustainability Committee and Business Conduct Committee. In addition, we report on workplace behaviours bi-annually to the Risk and Audit Committee.

7. **Monitoring:** Our annual Your Voice employee survey is a key mechanism for seeking feedback from our people on their experiences of working for us, including instances of sexual harassment in our workplaces.

   + Learn more about our FY24 survey results on page 21.

(6) Includes our corporate headquarters based in Perth (Australia), Johannesburg (South Africa) and Singapore.

PEOPLE AND CULTURE

Our employees and contractors that work with us are fundamental to our success and to unlocking the full potential of our business.

Our culture and focus on building a diverse workforce that reflects the communities in which we operate positions us to attract and retain talented people who live our shared values, embrace opportunities, and aim to leave a positive legacy.

Our Approach to People and Culture outlines our commitments and management approach to fostering an engaged, inclusive, and diverse workforce and shaping a positive employee experience.

+ **Learn more about Our Approach to People and Culture at www.south32.net.**

Our employees by geographic location

- 51% Australia
- 36% Southern Africa
- 12% Americas
- 1% Rest of the world
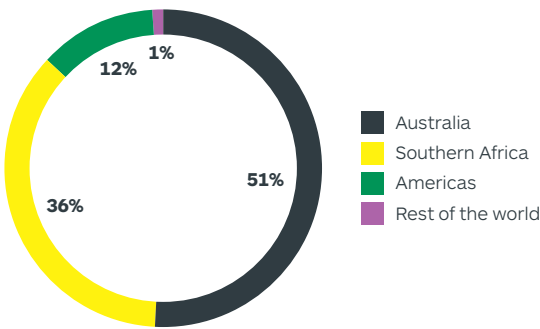
Our culture

Our Board and Lead Team are focused on instilling a culture that aligns with our purpose, reflects our values and supports the delivery of our strategy. They are responsible for shaping our safety focused, high performance and values-based culture where everyone feels safe, included and respected at work. Our culture is a key enabler in embedding safe and sustainable business practices to demonstrate our 'safety guarantee' that everyone goes home safe and well, every day.

Our Board and Lead Team receive regular updates on people and culture matters, including briefings on our annual Your Voice employee survey, workplace misconduct reports, and data and insights on turnover, recruitment and talent management opportunities and challenges. They also utilise our culture tensions model, which provides a framework and common language for assessing organisational culture characteristics, to help to align our current and preferred culture, and to facilitate a shared understanding of the role of culture in delivering our purpose and strategy.

'Your Voice'

We engage with our employees on our culture and their experiences, including through our annual Your Voice employee survey, to inform our approach to continuous improvement. Eighty-five per cent of employees completed our FY24 survey[1], our highest participation to date, demonstrating the significant reach and engagement in this process.

The survey is conducted on a confidential basis to encourage open communication, and assesses five dimensions – safety, leadership, employee engagement, employee experience and workplace conduct. This year, we included additional questions specifically for line leaders to understand their unique perspectives and how we can best support them to lead effectively. The survey was also extended to a sub-set of agency contractors, providing us with insights into their experiences.

Based on the survey responses, in FY24, respondents reported an equal or improved experience in all five dimensions, demonstrating the positive impact of global programs including LEAD Safely Every Day, the frontline

Leadership Fundamentals Program, and the Active Bystander discussion series.

Other highlights include:

- Improved employee engagement score of 81 per cent;
- Continued strong belief in our 'safety guarantee';
- A reduction in people reporting that they had experienced some form of misconduct and an increase in reporting rates; and
- Increased intent to continue working for South32.

Other highlights include opportunities to further embed our 'safety guarantee', including by extending the LEAD Safely Every Day program to additional frontline employees and contractors and continuing to support our people to feel empowered and safe to speak up.

Line leaders are provided access to their team's results. This enables them to meaningfully engage with their teams on opportunities to enhance our employee experience and instil a high performance, values-based culture to support delivery of our strategy and improved performance outcomes.

---

(1) Given the agreement to sell Illawarra Metallurgical Coal and focus on recovery efforts following Tropical Cyclone Megan at Australia Manganese, employees at these operations did not participate in the FY24 survey. Your Voice employee survey results presented in this report are calculated on re-baselined data to support year-on-year comparison against the same operations in scope.

Inclusion and diversity

An inclusive culture and diverse workforce allows for greater collaboration, innovation, and performance. Building and maintaining a workforce that represents the communities in which we operate, especially recruiting more women into operational roles, is an industry-wide challenge that we are working to address.

We set and track performance against a series of inclusion and diversity measurable objectives which are aimed at improving inclusion and diversity in our workplace and are approved annually by our Board. These measurable objectives inform the performance targets and actions on our annual Business Scorecard, linking pay to performance. Our Board and Lead Team gender targets are based on the ambitions of the 40:40 Vision led by HESTA, while targets for the representation of Black People in South Africa are based on the *South African Broad Based Black Economic Empowerment Codes*.

The below table shows the representation of women in our workforce, leadership teams and Board, and the representation of Black People in our South African workforce, in the last three financial years. Performance improved or was maintained year-on-year for five of the seven FY24 measurable objectives, three of which were achieved.

Table 3 – Inclusion and diversity performance

Diversity representation (%)	FY24 measurable objective	FY24	FY23	FY22
Women in our workforce	Achieve at least 23.5 per cent	**20.6**	20.2	19.2
Women on our Board[2]	Maintain at least 40 per cent	**50.0**	44.4	37.5
Women in our Lead Team	Maintain at least 40 per cent	**50.0**	50.0	37.5
Women in our Senior Leadership Team	Achieve at least 32.7 per cent	**30.3**	30.3	32.1
Women in our Operational Leadership Team	Achieve at least 31.5 per cent	**25.7**	28.7	20.4
Black People in South Africa in total workforce[3]	Maintain at least 85 per cent	**88.4**	86.9	86.1
Black People in South Africa in management roles[4]	Achieve at least 60 per cent	**51.8**	55.3	61.9

☐ represents the measurable objectives which were met in FY24.

FY24 progress and activities

In FY24 we revised our Inclusion and Diversity Policy to reflect the evolution in our approach. Our FY24 inclusion and diversity plan, which is approved each year by our CEO, focused on:

– Embedding the performance requirements of our internal inclusion and diversity standard, identifying gaps and addressing improvement opportunities;

– Conducting comprehensive sexual harassment risk assessments for our operations and offices[5];

– Rolling out a discussion series on the important role bystanders can play in creating a safe and respectful work environment;

– Supporting our inclusion and diversity networks, which are now in place at all our operations and offices. These networks play a critical role championing inclusion and diversity, by embedding processes, and sharing information and resources; and

– Developing a discussion series on workplace behaviours for roll-out to contractors in FY25, building upon the Living our Code discussion series that we developed for employees in FY23.

In FY24 we continued to embed inclusion and diversity principles into our recruitment processes. In assessing applications for roles, our hiring managers are expected to take reasonable steps to establish a diverse interview panel and interview a diverse range of applicants. Recruitment processes are designed to prompt specific consideration of inclusion and diversity matters.

Pay equity

We complete gender and ethnicity pay equity reviews each year and invest to improve pay equity across our employee workforce. Our FY24 inclusion and diversity measurable objectives included a performance target to reduce the year-on-year spend required to support pay equity. FY24 spend decreased 14 per cent from FY23, achieving the measurable objective of a year-on-year reduction.

During our FY24 review, we identified opportunities to mitigate potential gender pay gaps that may be introduced in key phases of the employee lifecycle. Improving our business processes, particularly in the recruitment and hiring stage, to address this finding is a key focus for FY25.

Pay equity and local minimum wage data is provided in our Sustainability Databook 2024 at *www.south32.net*.

Review of our inclusion and diversity measurable objectives

Each year we review our inclusion and diversity measurable objectives. During FY24, we undertook a more comprehensive review to assess their alignment to, and effectiveness in supporting, our ambition to create a workforce that is representative of the communities where we operate. The review considered, amongst other things, operation-level requirements and commitments, stakeholder expectations, regulatory developments and benchmarking against industry peers.

As an outcome of the review, the measurable objectives relating to the representation of women in operational and senior leadership will be consolidated and expanded in scope to focus on building the representation of women in leadership more holistically across all levels of our workforce. Similarly, the measurable objectives on the representation of Black People in our South African workforce will be consolidated into local diversity measurable objectives with an expanded focus on broader ethnic diversity representation in our workforce across our geographies. The measurable objectives for FY25 will be disclosed in our 2025 Annual Reporting Suite.

---

(2) The representation of women on our Board is excluded from the Business Scorecard given it is not within management control.
(3) Generic term meaning Africans, Coloureds and Indians who are citizens of the Republic of South Africa as defined in the *Broad-Based Black Economic Empowerment Amendment Act, 2013*.
(4) Leaders with an identified job grading based on requirements of role and salary, including executives and senior management.
(5) Includes our corporate headquarters based in Perth (Australia), Johannesburg (South Africa) and Singapore.

Workplace conduct

Our Code of Business Conduct (Code) sets the standards of conduct that we expect of our employees and contractors, executive management and Directors. Our leadership model defines the accountabilities, behaviours and competencies expected of our people. Together with our values, they clearly define our expectations for workplace behaviours.

Our Speak Up Policy encourages people to report unacceptable workplace behaviours and includes measures which seek to prevent retaliation for doing so. We provide a range of mechanisms for raising business and conduct concerns, including our internal complaints processes and confidential, global whistleblower hotline, EthicsPoint. We appreciate this may not be an easy thing to do, and we provide our people with access to mental health and wellbeing support materials, including our employee assistance program, if they need support.

Our Code outlines that bullying, harassment, sexual harassment, discrimination, victimisation or any other disrespectful behaviour are unsafe behaviours, considered serious breaches of our Code and will not be tolerated.

We have a robust approach to consequence management for inappropriate workplace conduct and recognise that, in addition to having a strong governance framework for responding to incidents, consequences must be clear and enforced.

Actions and behaviours misaligned to our expected behaviours and Code are managed through our disciplinary processes which may, and have, resulted in disciplinary action up to and including dismissal.

Our Business Conduct Committee, made up of senior leaders, provides guidance and oversight on material workplace (and business) conduct concerns. Such cases are reviewed by the Committee quarterly, with a focus on consistent application of our Code and disciplinary outcomes. We also report bi-annually to our Risk and Audit Committee on the most serious conduct concerns, including material breaches of our Code and related outcomes.

Through our Your Voice employee survey we asked our people to share their experience of working at South32, including instances of bullying, discrimination, harassment, and sexual harassment experienced in our workplaces in the last year. Feedback from respondents included:

– Eighty-five per cent of respondents indicated that they felt workplace misconduct was not tolerated at South32, a one percentage point decrease from FY23;

– Nine per cent of respondents reported that they had experienced some form of bullying, harassment, sexual harassment, or discrimination in the prior 12-month period, a three percentage point decrease from FY23; and

– Of the respondents who reported experiencing inappropriate conduct, 36 per cent said they had formally reported this conduct, a two percentage point increase from FY23, which suggests that our people are feeling more empowered to speak up and report inappropriate conduct.

These results demonstrate the importance of ongoing communication around our expectations regarding appropriate workplace conduct. They also highlight the need for continued focus on creating a workplace where our people feel supported and safe to speak up and report inappropriate conduct so it can be addressed.

Understanding the role of the Active Bystander

To help create a workplace where everyone feels safe and can speak up, we introduced the new Active Bystander discussion series in FY24. The series builds upon our Living our Code training and discussion series which focused on creating conversations around our expected behaviours and was successfully rolled out to more than 90 per cent of our employees in FY24.

The Active Bystander discussion series focuses on the important role of bystanders in helping reduce unsafe and disrespectful behaviours. It reinforces our zero-tolerance approach to workplace misconduct and helps to increase awareness of the avenues for reporting breaches of our Code.

The discussion series uses case studies to explore the role of bystanders, and to highlight the actions our people can take to support our 'safety guarantee' that everyone goes home safe and well. The sessions are leader-led small-group conversations, providing participants with the opportunity to engage in conversation, share their experiences and ask questions.

The Active Bystander discussion series will continue in FY25 and will be developed into e-learning modules which will be embedded into our induction processes and made available to all our employees and contractors.

Attracting, developing and retaining talent

Like others in our industry, we face increased competition for talent in many of the communities where we operate. Our graduate programs offer students and graduates a pathway to a future career at South32. In FY24, we engaged 94 vacation students, and as at 30 June 2024, we had a further 446 graduates, apprentices, trainees and learners in our talent pipeline. In line with our commitment to inclusion and diversity, 40 per cent of these people are women.

In FY24, we engaged with our people to understand their experiences of working for us to redefine our employee value proposition (EVP), which we call the 'South32 Experience'. Developed using research and information from a wide range of sources, including employee workshops, data from our Your Voice employee survey and exit interview insights, the 'South32 Experience' outlines the commitments we make to our people, the opportunities available so that they can reach their full potential, and what we ask and expect in return.

Our Human Resources and External Affairs teams across our business are working to embed our 'South32 Experience' in customised ways across all stages of the employee lifecycle, including recruitment and onboarding. This will help us to shape an employee experience that assists with attracting, developing and retaining talented people who have a shared belief in our purpose and values.

Learning and development

We promote learning and support professional development for employees through a variety of internal and external channels. Our employees also have access to a mentoring toolkit, which provides guidance on establishing mentoring processes to further support the achievement of development goals.

We continue to invest in leadership capability through ongoing deployment of our Leadership Fundamentals Program, which provides tailored support for the development of leadership skills for frontline leaders. In FY24, we developed and piloted two additional programs focused on developing leadership capability at the middle-management level, which we plan to begin rolling out to our workforce in FY25.

Reward and benefits

Our annual performance and reward review process aims to value, recognise and reward high performance. We monitor the employment market to offer competitive remuneration and benefits and have designed our reward framework to reward achievements, leadership and behaviours that promote our values and purpose.

Through our Allshare Equity Plan, we offer employees the opportunity to acquire shares in South32 and participate in our financial success.

Employees may receive additional benefits that differ across our locations reflecting local labour markets, which may include retirement savings and pension matching programs, personal insurance, medical insurance subsidies, educational assistance, service awards and support and advice on the transition to retirement. We also offer entitlements for parental leave and provide opportunities for employees to balance personal and business priorities with flexible and remote work arrangements, where feasible.

Linking culture with reward

Our remuneration framework includes a short-term incentive payment for eligible employees which is determined using inputs from the Business Scorecard, operational/functional performance, and individual performance.

Individual performance measures are based on the delivery of key performance indicators, demonstrated behaviour aligned to our values and leadership expectations which include creating trust, being inclusive, collaborating, coaching, developing, and empowering others. Through this process, employee performance is measured not just on what is delivered, but also how; helping us build the safe, engaged and inclusive workplace culture we are working towards.

Labour rights and relations

The countries we operate in are members of the International Labour Organisation. We respect international labour standards and local labour laws and regulations, including those relating to working hours, working conditions, entitlements to minimum wages and the right to choose unions or association representatives.

Our minimum requirements for suppliers state that wages and benefits (including overtime) paid for a standard working week, must satisfy, at a minimum, national legal standards or local industry benchmarks. We work with reputable recruitment agencies and pay for the cost of recruitment activities.

We engage in collective labour negotiations where appropriate, working to achieve mutually beneficial outcomes. As at 30 June 2024, collective agreements covered approximately 55 per cent of our employees. During FY24, we successfully concluded negotiations for new collective agreements that apply to select groups of employees at Illawarra Metallurgical Coal, Cannington, Worsley Alumina and South Africa Manganese.

Workplace relations data is provided in our Sustainability Databook 2024 at *www. south32.net*.

Communicating significant operational changes

Our approach to communicating significant operational changes to our people, such as the closure of an operation, is dependent on the timing, scale, scope, and nature of the changes expected. In general, this would involve leadership briefings, formal announcements, the commencement of a consultation period and response to feedback as appropriate, which would inform formal outcomes and subsequent implementation.

Support offered to employees includes employee assistance programs and outplacement services which may involve one-on-one coaching to prepare for entering the job market, and other services such as resume and LinkedIn profile development, networking, and interview skills development.

We have two operations nearing closure within the next ten years – Cannington and Australia Manganese. This year we commenced developing our workforce plan for Cannington to understand the core skills required for closure and associated transitions, in addition to our closure communication strategy. Australia Manganese plans to commence developing its workforce plan in line with the operation's closure pre-feasibility study schedule.

PARTNERING WITH COMMUNITIES

Our commitment to sustainable development includes contributing social and economic value where we operate. We engage with stakeholders to understand their interests, priorities and aspirations, and identify opportunities to work toward shared value creation.

Our engagement with communities is driven by our purpose and values, and our approach is guided by relevant international standards such as the ICMM Mining Principles and Performance Expectations.

Our internal social performance standard defines minimum requirements for identifying and addressing social impacts and human rights risks, working with Indigenous, Traditional and Tribal Peoples and other stakeholders, and managing social investments and cultural heritage across our operations, development projects and options, and exploration prospects.

External Affairs teams at our operations and projects design local stakeholder engagement, social performance and social investment plans to implement the standard. Stewardship activities are designed and delivered by our social performance team who provide guidance and support on compliance with our internal standards and local requirements.

COMMUNITY RELATIONSHIPS

We believe that building meaningful community relationships based on trust is essential to the way we operate. This means understanding and working to address actual and potential impacts and participating in transparent two-way communication that is proactive, responsive and ongoing.

Community engagement and research provides us with valuable insights into actual and potential impacts from our activities on local communities, as well as risks and opportunities. This engagement and research includes:

– Baseline and social impact assessments, which are updated periodically to understand the social, cultural and economic characteristics of communities where we operate;

– Engagement forums, such as face-to-face meetings, community consultation committees and workshops, where we can discuss community interests, expectations, priorities and concerns; and

– Community perception surveys which provide valuable feedback on our approach and insights into levels of community support and trust.

Complaints and concerns

We aim to develop activity-specific, locally appropriate and culturally sensitive complaints and grievance mechanisms[1]. Our community complaints and grievance process is aligned with the United Nations Guiding Principles on Business and Human Rights and the UN's Protect, Respect and Remedy Framework, specifically to:
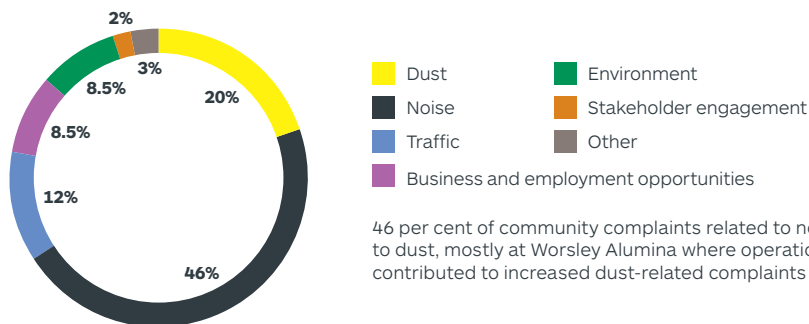
– Be readily available to all members of local communities;

– Allow for anonymous reporting of complaints;

– Acknowledge, investigate, and document all complaints;

– Complete appropriate remedial action; and

– Communicate transparently with complainants.

In FY24, there were 141 community complaints received across our operations through local complaints and grievance mechanisms. One of these complaints is an open grievance relating to noise and traffic at Illawarra Metallurgical Coal (IMC). We have implemented a number of measures to mitigate our impacts and continue to work towards resolving the concerns raised by the complainant. Other than this grievance, all other complaints raised in FY24 were resolved as at 30 June 2024.

(1) A community complaint is a verbal or written notification made directly to a South32 representative by a member of the community. Where a complaint has escalated to the point that it requires third party intervention or adjudication to resolve, this is considered a community grievance.

Partnering with communities continued

FY24 community complaints by type

Legend:
- Dust
- Noise
- Traffic
- Business and employment opportunities
- Environment
- Stakeholder engagement
- Other

Percentages shown: 2%, 3%, 20%, 46%, 12%, 8.5%, 8.5%

46 per cent of community complaints related to noise, mostly at IMC. Twenty per cent related to dust, mostly at Worsley Alumina where operational activities and drier weather conditions contributed to increased dust-related complaints in FY24.

Stakeholder concerns raised in FY24

During FY24 we conducted updates to our baseline assessments, social impacts assessments and community perceptions surveys at our operations in Southern Africa and selected operations in Australia. Table 4 shows community and stakeholder feedback shared with us through these activities, as well as our complaints and grievance mechanisms and other research and engagement forums, including face-to-face meetings and community consultation workshops.

The information and feedback we receive through these mechanisms helps to inform our operation-specific stakeholder engagement plans and social performance plans, which are reviewed regularly. This flexibility in our approach means that these plans can be adapted for the unique and evolving operating context of each location where we operate.

Table 4 – Stakeholder feedback and focus areas

Australia	Southern Africa	United States	Colombia
– Impacts of operational activity, including noise, dust, and traffic. – Employment and procurement opportunities for local and Indigenous communities. – Responsible management of water (access and availability). – Closure planning and related social and economic impacts at Australia Manganese and Cannington. – Cultural heritage protection and sustaining living culture. – Impacts of climate change. – Potential negative environmental impacts, including from land clearing.	– Access to education, training and skills development for local people and businesses. – Procurement growth and supplier development opportunities for local businesses. – Local employment and workforce development opportunities. – Investment in education and health facilities for local communities. – Responsible management of water (contamination). – Impacts of operational activity, including noise, dust, and traffic.	– Potential negative impact of future mining operations on environment and biodiversity. – Responsible management of water (contamination and safe management of tailings). – Impacts of operational activity, including noise, dust, and traffic. – Employment and procurement opportunities for local and Indigenous communities. – Perception of future operations impacting social amenity.	– Employment and procurement opportunities for local and Indigenous communities. – Sustaining community health and wellbeing. – Ongoing investment in social and economic outcomes for local and Indigenous communities. – Responsible management of water and air emissions.

Community-related non-technical delays

Eight instances of community related non-technical delays occurred in FY24, with a cumulative delay in production of 3.3 days. Five of the instances related to community protest activity and unrest regarding access to business and employment opportunities at South Africa Manganese. The three remaining instances related to unauthorised site access at Australia Manganese.

In FY24, South Africa Manganese conducted a review of risks associated with community-related non-technical delays, with actions under way to enhance controls and our community engagement approach. Both South Africa and Australia Manganese conducted reviews of their security management practices in FY24, with further information about these reviews provided on page [19].

Improving stakeholder relationship management

In FY24, we continued to mature our approach to managing stakeholder relationships and commenced implementing a new stakeholder relationship management (SRM) system that enables us to easily record and analyse our engagements with stakeholders, including community, government, industry, and non-government organisations.

The SRM system was rolled out to our Australian operations in FY24, with implementation for other jurisdictions to follow in FY25.

Once fully implemented, the SRM system will provide a detailed view of stakeholder engagements across our business, enabling us to map trends and sentiment and proactively manage risks and issues associated with our relationships. Data captured in the system will be used to evaluate the effectiveness of our operation-specific stakeholder engagement plans.

OVERVIEW   PROTECTING AND
RESPECTING OUR PEOPLE   DELIVERING VALUE
TO SOCIETY   OPERATING ETHICALLY
AND RESPONSIBLY   MANAGING OUR
ENVIRONMENTAL IMPACT   ADDRESSING
CLIMATE CHANGE   APPENDICES

INDIGENOUS, TRADITIONAL AND TRIBAL PEOPLES

We are committed to building strong relationships that enable us to work in partnership with Indigenous, Traditional and Tribal Peoples. We seek to contribute to their cultural wellbeing and deliver long-term opportunities, through employment, procurement, social investment and training. This commitment, and the long-term nature of our operations, enables us to develop and foster lasting relationships.

+ **Learn more about Our Approach to Indigenous, Traditional and Tribal Peoples Engagement at _www.south32.net_.**

Valuing reconciliation in Australia

Our vision for reconciliation is for an Australia that embraces the histories and cultures of Aboriginal and Torres Strait Islander Peoples and that, as a nation, we work collectively towards supporting all Australians. As a significant employer and investor in Australia, we recognise the positive impact we can have on reconciliation.

South32 has proudly supported the Uluru Statement from the Heart since 2020 and an Indigenous Voice to Parliament is a key component of this. With a referendum on an Indigenous Voice to Parliament being unsuccessful in 2023, we believe that reconciliation is now more important than ever.

We developed our inaugural Reflect Reconciliation Action Plan (RAP) in 2018. This was followed by our next level Innovate RAP in 2020 which sought to integrate reconciliation activities into our business practices and decision-making. Through these RAPs, we have implemented various initiatives, including work experience and career pathway programs, partnerships to protect and enhance cultural heritage, and support for Indigenous businesses.
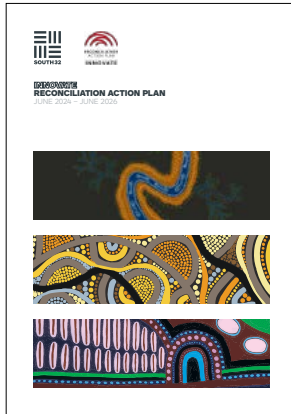
We launched our second Innovate RAP in July 2024 which reaffirms our commitment to reconciliation and focuses on moving forward in a united and respectful way. This second Innovate RAP is an opportunity to consolidate and build on our experiences and make an even greater impact moving forward.

Through our RAP, we are seeking to:

– Strengthen relationships with Aboriginal and Torres Strait Islander Peoples, particularly in the places we work;

– Work with Aboriginal and Torres Strait Islander Peoples to preserve and protect cultural heritage at our operations in Australia;

– Promote employment of Aboriginal and Torres Strait Islander Peoples, including through our processes for attracting, developing and retaining talent;

– Elevate the voices of Aboriginal and Torres Strait Islander Peoples within our business by establishing new networks and forums;

– Build the cultural competency of our employees through tailored training and immersion activities; and

– Increase our procurement of goods and services with Aboriginal and Torres Strait Islander businesses through a dedicated procurement strategy.

+ **Learn more about our second Innovate RAP at _www.south32.net_**

Our other FY24 activities in support of reconciliation in Australia included:

– Increasing procurement of goods and services from Aboriginal and Torres Strait Islander businesses by 11 per cent year-on-year, exceeding our performance target of a 10 per cent increase;

– Participating in the Business Council of Australia's Raising the Bar initiative, focused on sustainably increasing procurement from Indigenous suppliers;

– Employee-led mentoring of secondary students through the Australian Indigenous Education Foundation;

– Proactively partnering with community organisations, land councils and local governments to support improved outcomes for Aboriginal and Torres Strait Islander Peoples, primarily in the areas of education and leadership, and good health and social wellbeing. These programs accounted for 28 per cent of our total social investment in Australia;

– Continuing our three-year partnership with Reconciliation Western Australia established in FY23 to deliver the annual Walk for Reconciliation in Boorloo (Perth) and extending the partnership to bring the Walk for Reconciliation to Goomburrup (Bunbury), near Worsley Alumina; and

– Continuing to increase employee awareness and engagement through National Reconciliation Week and NAIDOC week activities at our Australian operations and offices.

Cultural heritage

We are committed to working with communities and stakeholders, including Indigenous, Traditional and Tribal Peoples, with the aim of achieving the best possible outcomes wherever our activities have the potential to impact cultural heritage. This includes applying the principles and processes of Free, Prior and Informed Consent (FPIC) in seeking to obtain and maintain agreed outcomes with Indigenous, Traditional and Tribal Peoples where adverse impacts are likely to occur to cultural heritage.

In FY24, we contributed to the development of ICMM's updated Indigenous Peoples and Mining Position Statement, which was launched in August 2024. The statement includes updated commitments relating to reconciliation, greater participation of Indigenous Peoples in mining and mining-related projects, and the application of FPIC principles in decision and agreement-making.

Our involvement in the statement's development included participating in ICMM's Indigenous People's Working Group and presenting on our approach to Indigenous, Traditional, and Tribal Peoples' engagement, and participating in ICMM's CEO Social Performance Advisory Group, where our CEO, Graham Kerr, joined other ICMM member company CEOs to guide ICMM's approach to areas of social performance.

Embedding the statement and associated performance expectations into our governance and risk management processes will be a focus for FY25.

+ **Learn more about Our Approach to Cultural Heritage at _www.south32.net_.**

FY24 progress and activities

Enhancing our Group-wide approach to cultural heritage governance and risk management was a key focus area in FY24. This included updating, standardising and implementing minimum mandatory controls for the identification, evaluation and management of cultural heritage risks across our operations.

We are also studying the benefits and feasibility of a new land use permit system to manage land disturbance approvals and mitigate potential for cultural heritage impacts, which will continue in FY25.

In FY24 Worsley Alumina continued to participate in the South West Sustainability Partnership, an alliance to promote and support collaborative sustainability activities and research in Western Australia. Through this partnership, we invested in two initiatives with the aim of supporting cultural heritage protection and the creation of job opportunities for Aboriginal people:

– A multi-year partnership with the Leschenault Catchment Council to build skills, provide meaningful job opportunities and mentoring for local Noongar people. Participants of the Danju-Jobs Together Program support environment and rehabilitation work at Worsley Alumina. The Program also supports the Council on community projects, including restoring the southern branches of the Collie River; and

– A new partnership between Worsley Alumina and the Gnaala Karla Booja Aboriginal Corporation (GKB) to protect and enhance cultural heritage management in the region. Through this partnership, we are contributing funding towards the GKB's sustainable South West Land and Sea Aboriginal Ranger Program which aims to empower and employ Aboriginal rangers to engage in invasive species management, ecological monitoring, community events, coastal erosion mapping and management.

Our other FY24 activities focused on engagement with Indigenous, Traditional and Tribal Peoples and cultural heritage included:

– Establishing a Tribal Engagement Plan with Tribes in the south-west region of Arizona, near our Hermosa project, to better understand their historical affiliation to land in and around the project;

– Continuing Cerro Matoso's partnership with the Dimite Foundation who have supported the neighbouring Afro-descendant communities of Bocas de Uré and San José de Uré to develop culturally appropriate governance capabilities. The approach uses both contemporary governance principles and ancestral knowledge to drive improved self-governance capabilities; and

– Collaborating with Traditional Owners at Cannington to document the cultural heritage values within the pastoral leases associated with the mine.

At Illawarra Metallurgical Coal, a routine inspection during mining at Longwall 19A in FY24 identified impacts to rock formations recorded in Dendrobium mine's Aboriginal Cultural Heritage Assessment at sites with cultural significance. In accordance with the Cultural Heritage Management Plan for Longwall 19A, these impacts were reported to Registered Aboriginal Parties, HeritageNSW and the NSW Department of Planning and Environment. A specific site management plan to assess the potential impact to the sites and discuss measures that could be taken to mitigate any further impacts is being co-developed with relevant Registered Aboriginal Parties.

Protecting and preserving cultural heritage at Cannington's Cowie Station

To the northwest of Cannington, in Queensland, Australia, is the South32-owned Cowie Station[2]. Covering more than 94,000 hectares of land, Cowie Station has high cultural heritage and biodiversity value in addition to supporting pastoral activities over its grazing lands. The Traditional Owners of Cowie Station are the Yulluna peoples, Mitakoodi peoples and Kalkadoon peoples, and we respect the deep knowledge and connection the Traditional Owners have with the land.

In FY24, we engaged with the Traditional Owners to conduct surveys which are then used to inform our management and conservation activities on Cowie Station. This was supported by the preparation of a Biodiversity Values Assessment Report, which identified opportunities to promote improved biodiversity and conservation outcomes at Cowie Station, alongside the protection of cultural values.

We also completed the second phase of a Cultural Heritage Values Assessment of Cowie Station to improve our understanding of the areas of cultural significance. This involved a desktop review of cultural heritage values and gap analysis, continued engagement and consultation with Traditional Owner groups, and the development of a predictive model to assist with mapping areas of cultural significance.

The grazing lands of Cowie Station can provide many economic benefits to the local community. In FY24, we commenced an expression of interest process with the local community to lease Cowie Station for a four-year tenure. We received 12 submissions from the community, from which a preferred applicant was selected.

To support the protection and preservation of cultural heritage at Cowie Station, the selection process evaluated each applicant's proposed farm management plan and their proposed approach to avoiding culturally significant areas. As part of the conditions of receiving access to the land, the pastoral lessee is required to adhere to our Cultural Heritage Protocol[3] to minimise, mitigate and prevent impacts to cultural heritage.

Our work on Cowie Station demonstrates our approach to managing cultural heritage, and working together with the Traditional Owners, communities and other stakeholders and our commitment to try and preserve and protect cultural heritage to the extent possible.
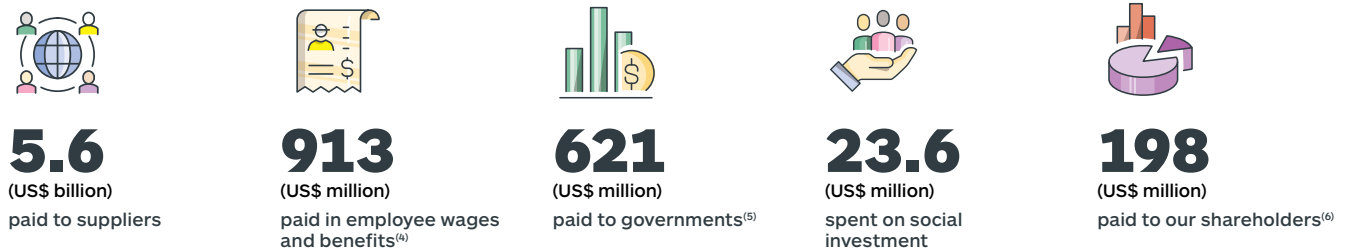
---

(2) In Australia, a large land holding used for livestock production is known as a 'station'.
(3) The Cultural Heritage Protocol is a tenure document that is provided to third-party lease users.

OUR SOCIETAL CONTRIBUTION

We believe that the sustainable development of natural resources can change people's lives for the better. We seek to contribute meaningfully to the social and economic development of countries and communities where we operate through the taxes and royalties we pay, employment opportunities we create, suppliers we work with, social investments we make and shareholder returns we deliver.

Our FY24 economic contribution

5.6
(US$ billion)
paid to suppliers

913
(US$ million)
paid in employee wages and benefits[4]

621
(US$ million)
paid to governments[5]

23.6
(US$ million)
spent on social investment

198
(US$ million)
paid to our shareholders[6]

FY24 performance and outcomes

A range of metrics we use to track our social performance is provided in our Sustainability Databook 2024 at www.south32.net. We also measure our social performance against performance targets and actions in our annual Business Scorecard, which is a key determinant of the short-term incentive payments we make to eligible employees. Learn more about our FY24 Scorecard on page 14.
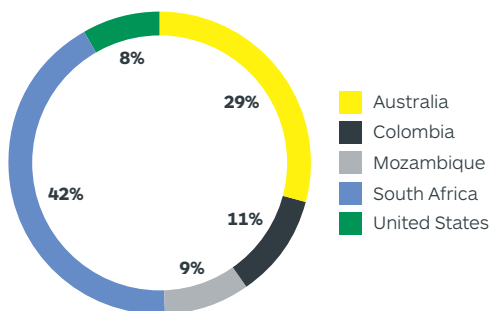
Social investment

Our operation-specific social investment plans cover a three-year period and are reviewed annually so that they continue to reflect stakeholder and community interests and priorities.

We evaluate the impact of our social investments through our social investment impact measurement framework. The framework supports data gathering and analysis of our social investments to measure outcomes over the short, medium and long-term (for example, jobs and improved literacy/rates) and overall changes within the community as a result. This provides an evidence base to inform future investment decisions, improve program design and report on our performance.

In FY24, we worked on adapting and expanding our application of the framework to economic development plans (EDPs) at our South African operations which focus on skills development and enterprise and supplier development activities. In FY25 we plan to continue embedding the adapted framework at Hillside Aluminium and South Africa Manganese and explore opportunities to apply it to the EDPs at our other operations.

Social investment by country

- 29% Australia
- 11% Colombia
- 9% Mozambique
- 42% South Africa
- 8% United States

Our FY24 social investment totalled US$23.6 million, distributed across our four focus areas as follows[7]:

- **Education and leadership (22 per cent)-** supporting learning and leadership development and promoting equal access to education, with a focus on science, technology, engineering and mathematics:
  - Over 30,000 students across more than 500 schools and learning institutions in communities where we operate participated in education and leadership programs funded by South32.

- **Good health and social wellbeing (20 per cent)-** supporting community health, cultural and social wellbeing and promoting inclusion and participation:
  - More than 58,000 people participated in good health and social wellbeing programs funded by South32, reaching over 31,000 households across communities where we operate.

- **Economic participation (45 per cent)-** supporting local employment, sustainable livelihoods and diversified local economies:
  - More than 300 small, medium and micro enterprises participated in initiatives aimed at supporting local economic development and more than 2,200 jobs were supported across our social investment programs.

- **Natural resource resilience (13 per cent)-** supporting communities with conservation and restoration of the natural environment, and the use of natural resources in responsible and sustainable ways:
  - Ten regionally extinct mammal species reintroduced and more than 90 native animals monitored through conservation projects funded by South32, and increased agricultural productivity by mitigating weed infestation across 4,300 hectares of farmland.

+ Learn more about our social investment highlights at www.south32.net/Sustainability/Stories.

+ Learn more about our how we are contributing social and economic value at our Aluminium smelters on page 67.

---

(4) Includes wages, salaries, redundancies and employee share awards paid to our employees of our subsidiaries, operated joint ventures and non-operated joint ventures, at our ownership proportion, excluding Sierra Gorda.

(5) Taxes, licences, royalties and other payments paid to governments (including those accounted for under IFRS as an income tax) for all our subsidiaries, operated joint ventures and non-operated joint ventures, at our ownership proportion.

(6) Fully-franked ordinary and special dividends paid in respect of H2 FY23 (US$145M), fully-franked ordinary dividends paid in respect of H1 FY24 (US$18M) and on-market share buy-back (US$35M).

(7) Social investment totals include direct investment (community programs and Enterprise Development), in-kind support and administrative costs. Focus area data is related to direct investment only. Information on our beneficiaries is subject to the provision of data from our community partners.

Partnering with communities continued
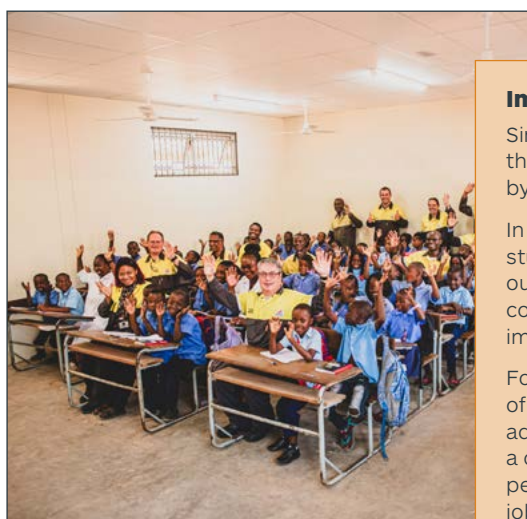
Improving learning conditions for students in Mozambique

Since 2017, Mozal Aluminium has helped improve the learning conditions of more than 13,000 students from primary and secondary schools in the local community, by providing social investment funding to refurbish and build school facilities.

In a state of disrepair, the Escola Básica de Malhampsene primary school saw students learning in unsafe conditions, over-crowded classrooms and under trees outside. Our Mozal Aluminium team worked closely with the local government and community to understand the requirements to upgrade the school and provide improved learning facilities.

Following an investment of US$1.8 million, the project delivered the refurbishment of nine existing classrooms, the construction of 12 classroom blocks, an administration block, a canteen, a water supply system so students have access to a clean and reliable water source, a sanitary block, and fencing around the school perimeter. It was built and refurbished by a local company and created temporary jobs for the local community during construction.

Meeting the educational needs of more than 4,000 students, the school was handed over to the Provincial Directorate of Education in FY24.

Local hiring and procurement

We provide employment opportunities in the regions where we work, with the aim of creating a workforce that reflects the diverse communities and countries where we operate.

We understand that local procurement growth is a key interest area for stakeholders at our operations. We seek to source goods and services from local businesses that meet our health, safety, environmental and social performance requirements. Our supplier contracting processes incorporate reviews of local markets to assess for local market presence and capability. We monitor performance against internal local procurement targets, which are set annually for our operations.

In FY24, we increased our local procurement spend by 14 per cent (US$143 million) compared to FY23. Over 26 per cent (US$1.1 billion) of our total procurement expenditure was spent with local suppliers, the largest amount spent with local suppliers of goods and services in a financial year since South32's inception.

In Australia, we engage with Aboriginal and Torres Strait Islander businesses across our supply chain. Our local sourcing teams engage with prospective suppliers on our procurement processes and how to work with South32.

In FY24, we increased our procurement of goods and services from Aboriginal and Torres Strait Islander businesses by 11 per cent from FY23, exceeding the procurement target set in our 2020 Innovate Reconciliation Action Plan of a 10 per cent year-on-year increase.

Transformation in South Africa

The *Broad-Based Black Economic Empowerment Act, 2013* (B-BBEE) and *Mining Charter of 2018* have been implemented to help address historical socio-economic inequalities and advance economic transformation in the South African economy. Enterprise and Supplier Development (ESD)[7] is one of the priority elements of this legislation, with the aim to strengthen local procurement from small, medium, and micro enterprises (SMMEs) and enhance local supplier development.

Our FY24 ESD expenditure of US$9.7 million exceeded our performance target of US$3.48 million[11]. Of this spend, US$3.7 million was directed towards supporting over 100 SMMEs with business development and funding support through our Supplier Development support program. In FY24, South Africa Manganese purchased 100 per cent of their non-traded goods and services from local suppliers and Hillside Aluminium over 23 per cent. Learn more about Hillside Aluminium's local economic contributions on page 67.

Our inclusion and diversity measurable objectives are a series of annual performance targets and actions aimed at improving inclusion and diversity in our workplace, including the representation of Black People in our South African workforce. Learn more on page 22.

Table 6 – Local procurement and transformation

Procurement	Unit of measure	FY24	FY23	FY22
Enterprise and Supplier Development (ESD) spend[8]	US$ million	**9.7**	14.7	17.5
Procurement from Aboriginal and Torres Strait Islander businesses[9]	Spend in A$ million	**33.8**	30.4	25.7
Local procurement[10]	US$ million	**1,160.0**	1,017.4	906.9
Proportion of local procurement spend[9]	% of total procurement spend	**26.1**	22.6	28.9

(8) ESD consists of two activities, Enterprise Development (focused on assistance provided to SMMEs that are not in an organisation's supply chain) and Supplier Development (focused on assistance provided to SMMEs within an organisation's supply chain). The Enterprise Development component is also captured in our social investment total.
(9) Target for a 10 per cent year-on-year increase in procurement of goods and services from Aboriginal and Torres Strait Islander businesses, as outlined in our 2020 Innovate Reconciliation Action Plan.
(10) Local procurement is the direct purchase of goods and services within the local communities in which South32 operates. Suppliers are deemed as local based on their proximity to our local communities, including boundaries defined by local government areas, provinces and states.
(11) Targets for ESD spend are based on three per cent net profit after tax, as prescribed in the B-BBEE Codes of Good Practice.

CONTRIBUTING SOCIAL AND ECONOMIC VALUE AT HERMOSA

Our Hermosa project is located in Santa Cruz County, Arizona. It comprises the zinc-lead-silver Taylor deposit, the battery-grade manganese Clark deposit and an extensive, highly prospective land package.

In FY24, we announced a US$2.16 billion investment to develop the Taylor deposit, the largest private investment in southern Arizona's history. Construction is now underway, with first production expected in FY27.

Hermosa's development will create significant employment opportunities in Santa Cruz County, where the average unemployment rate is nearly twice as high as the average for the state of Arizona. We are committed to developing a local workforce at Hermosa and have set a goal to have at least 80 per cent of our workforce living and working in Santa Cruz County, enabling downstream economic benefits to flow to the local region.

To help residents secure skilled jobs at Hermosa, we have established a dedicated Workforce Development Taskforce. The Taskforce will identify the skills needed and the local facilities available to help train, develop and expand the region's workforce. We are also supporting educational programs and initiatives that encourage local school students to explore science, technology, education, and mathematics (STEM) disciplines.

+ **Learn more at *www.south32.net/Sustainability/Stories***

We continue to consult proactively with local communities, including Native American tribes that have cultural ties to the project area, on opportunities for Hermosa to contribute social and economic value. Through our donor-advised South32 Hermosa Community Fund[12], we awarded US$120,000 in FY24 to not-for-profit organisations in Santa Cruz County with a focus on health and welfare, education, the arts and recreation. Since its inception in 2019, the South32 Hermosa Community Fund has awarded more than US$1 million in grants to more than 50 local not-for-profit organisations.

Projected economic contributions from Taylor's development[13]

Over the four-year construction period (FY24 to FY27):

› Support an annual average of 2,028 jobs in Arizona, including over 1,000 workers directly employed by the mine's construction in Santa Cruz County;

› Contribute an estimated US$678 million to Arizona's economy, including US$288 million to Santa Cruz County directly; and

› Generate US$15 million of new tax revenue for Santa Cruz County, an additional US$5.3 million for other local governments and increase the state of Arizona's tax collections by US$61 million.

During a typical year of operation:

› Support more than 2,300 jobs in Arizona, including over 1,500 jobs in Santa Cruz County directly;

› Contribute an estimated US$538 million to Arizona's overall economy, with US$410 million benefiting Santa Cruz County directly; and

› Generate an additional US$37 million of taxes annually for the state of Arizona and its local governments. Of this, almost half (US$15 million) will be received by Santa Cruz County directly.

+ **Learn more about our Hermosa project at *www.south32.net*.**

(12) In the United States, a donor-advised fund is a charitable giving vehicle administered by a public charity created to manage charitable donations on behalf of organisations, families, or individuals.
(13) Economic contribution data referenced in this case study is sourced from a third-party assessment of the Hermosa Project's economic and socioeconomic footprint dated 12 July 2024. Additional information on the methodologies and assumptions applied in the assessment is provided in our Sustainability Databook 2024.

HUMAN RIGHTS

We recognise that our activities have the potential to cause adverse impacts to people's human rights. We therefore have a responsibility to manage human rights risks to people across our operations and business relationships, with a particular focus on risks to vulnerable, marginalised and at-risk groups, including Indigenous, Traditional and Tribal Peoples.

Our Approach to Human Rights outlines our commitment to respect all internationally recognised human rights as set out in the International Bill of Rights[1] and the International Labour Organization Declaration on Fundamental Principles and Rights at Work. It also details our approach to managing human rights risks, which is guided by the United Nations Guiding Principles on Business and Human Rights (UNGPs) and implemented through our internal social performance standard.

Our social performance standard defines minimum performance requirements for managing human rights risks. Through stewardship activities, the Legal and External Affairs function provides guidance and support on compliance with the standard.

+ **Learn more about Our Approach to Human Rights at** *www.south32.net*

Salient human rights issues

In FY24, we conducted an externally facilitated assessment to identify the Group's salient human rights issues. Salient human rights issues are defined as human rights that are at risk of the most severe negative impact through our activities and business relationships[2].

Material changes since our prior assessment of salient human rights issues (completed in 2021) include the consideration of:

– Harassment (including sexual harassment) as risks relating to safe and respectful workplaces;

– Human rights risks throughout the value chain;

– The connection between environmental impacts and human rights; and

– Respect for the rights of human rights defenders.

This reflects the evolving legislative and human rights landscape since our prior saliency assessment, including the declaration of a clean, healthy and sustainable environment as a human right by the United Nations' General Assembly in 2022.

+ **Learn more about this assessment in our Modern Slavery Statement 2024 at** *www.south32.net*.

The six salient human rights issues identified for South32 were as follows:

– Safe and respectful workplaces;

– Labour rights in the value chain;

– Environmental impacts and rights, including the rights of community members;

– Impacts of security services on human rights;

– Land rights and Indigenous, Traditional and Tribal Peoples' rights; and

– Community wellbeing and engagement, including access to remedy.

The six salient human rights issues identified align with those expected to be found across the mining industry and countries where we operate[3]. A table setting out where information relating to each issue can be found in this report and other documents in our 2024 Annual Reporting Suite, is provided in our Sustainability Databook 2024 available at *www.south32.net*.

Insights and findings from the assessment have been communicated to relevant Lead Team members and their teams and will help us to prioritise and focus resources on the six salient human rights issues identified. Our focus for FY25 includes integration of the salient human rights issues identified into our risk management processes to the extent that these are not already incorporated.

---

(1) Comprising the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights.
(2) As defined in the UNGP Reporting Framework available at *https://www.ungpreporting.org/resources/salient-human-rights-issues/*.
(3) Confirmed through benchmarking activities during the salient risk assessment, including against peers and external sources.

Human rights due diligence

We conduct human rights due diligence across our operations and business relationships to help us identify, prevent, mitigate and account for how we address any involvement in human rights risks. Operations located in countries where human rights risk is considered high are required to undertake an independent Human Rights Impact Assessments (HRIA) at least every five years and annual Human Rights Risk Self Assessments (HRRSA) in the interim period.

In FY24, no HRIAs were due to be completed and action plans to address material issues identified in HRIAs completed in FY23, as detailed in our Sustainable Development Report 2023, continued to be progressed.

Operations in countries where human rights risk is considered low undertake HRRSAs annually. These assessments include a review of current human rights related risks and controls and changes in the context that would affect the operation's risk profile. Actions identified in the HRRSAs are required to be incorporated into business planning processes. In FY24, a social and human rights risk self-assessment was also conducted for our exploration activities in Argentina.

We regularly review and update internal standards and supporting documentation to integrate human rights due diligence and help to prevent our involvement in adverse human rights impacts. FY24 activities included refining guidance for operations on the human rights elements of the Global Industry Standard for Tailings Management.

FY24 Human Rights Risk Self Assessments

During FY24, HRRSAs were completed for our Australian operations and Hermosa project, with assessments for remaining operations due to be completed this calendar year. Primary human rights related risks identified in the HRRSAs reflect existing identified risks being managed in accordance with our risk management system.

At our Australian operations, human rights risks identified in the HRRSAs included community impacts relating to sharing of economic benefits, closure and security risk management practices, cultural heritage impacts, and workplace health and safety, including psychosocial harm.

At our Hermosa project, identified human rights risks included workforce and community road safety, workplace health and safety (including discrimination), access to trusted complaint and grievance mechanisms, responsible management of air emissions, and employment conditions including eligibility and authorisation to work in the United States.

Information on how we identify, assess and manage these risks is outlined in this report, including within the following chapters: Health and safety on pages 16 to 20, People and culture on pages 21 to 24, Partnering with communities on pages 25 to 31, Ethics and business integrity on pages 34 to 35 and Managing our environmental impact on pages 38 to 51.

Suppliers

Applicable to our people, our suppliers and joint venture partners acting on our behalf, our Code of Business Conduct (Code) outlines our expectations relating to human rights.

We aim to work only with suppliers with strong values and standards of conduct and that share our commitment to lawful business practices. Our expectations of suppliers are outlined in our Code and Supplier Minimum Requirements, available at *www.south32.net*.

Our activities to manage the risk of modern slavery and other human rights risks across our supply chain are detailed in our Modern Slavery Statement 2024 available at *www.south32.net*.

Complaints and grievance mechanisms

We are committed to providing accessible and safe grievance and redress channels for stakeholders to raise complaints about human rights. Where we identify that we have caused or contributed to an adverse human rights impact, we will cooperate in its remediation through legitimate processes.

Our community complaints and grievance process is aligned with the UNGPs and the UN's Protect, Respect and Remedy Framework. Reports relating to human rights that are made to our EthicsPoint confidential reporting hotline are managed through our internal business conduct reporting procedures.

In FY24, we received no reports relating to alleged violations of human rights through our community complaints and grievance mechanisms.

Training

Employees and contractors must complete our mandatory online Code training on joining South32, with follow-up training provided in accordance with our internal training plans. Our suite of human rights training, which includes an introductory human rights module and two modules on modern slavery and security, is assigned to selected employees based on their role and is made available to all employees.

In FY24 we broadened the allocation of our introductory human rights training module. The training was completed by over 95 per cent of targeted role holders and made available to the wider workforce, meeting our FY24 Business Scorecard target. A survey to measure the effectiveness of the training was conducted, with over 99 per cent of respondents reporting an improved ability to identify and report human rights risks and issues. More information about our FY24 Business Scorecard (sustainability-related measures) is provided on page 14.

Collaboration

We continue to participate in collaborative human rights initiatives and industry groups, including the UN Global Compact Network Australia Modern Slavery Community of Practice, the Human Rights Resources and Energy Collective, and relevant ICMM working groups. We also participate in several maritime-focused groups including the Sustainable Shipping Initiative and Mission to Seafarers.

ETHICS AND BUSINESS INTEGRITY

We are committed to the highest standards of integrity and accountability and encourage our people to speak up when our values and standards of conduct are not followed.

Business Conduct

Our Code of Business Conduct (Code) sets the standards of conduct that we expect of our employees and contractors, executive management and Directors, suppliers, and joint venture partners acting on our behalf in a South32 controlled or operated joint venture.

Our Code, Speak Up Policy and Anti-Bribery and Corruption Policy, which are published in multiple languages, and the contact details for our EthicsPoint reporting hotline, are available at *www.south32.net*.

Training on our Code is mandatory for all employees on joining South32, with follow-up training provided in accordance with our internal training plans.

Our Code also contains our global whistleblower policy, known as our Speak Up Policy. The Policy outlines how to report a business conduct concern, what happens when a report is made and how we protect the reporter. We do not tolerate any form of retaliation against anyone for reporting a business conduct concern or cooperating with a related internal investigation.

Anyone can report a business conduct concern, anonymously if preferred, using our confidential and independently administered EthicsPoint reporting hotline. All reports received are initially provided to our Business Integrity team for confidential review and case allocation based on their nature, urgency and severity. In some cases, support or guidance is all that is required to resolve a concern. In other cases, where necessary, we will formally investigate the concern.

Actions and behaviours misaligned to our expected behaviours and Code are managed through our disciplinary processes which may, and has, resulted in disciplinary action up to and including dismissal. Our Business Conduct Committee, made up of senior leaders, provides guidance and oversight on material business conduct concerns. Such cases are reviewed by the Committee quarterly, with a focus on consistent application of our Code and disciplinary outcomes. We also report bi-annually to our Risk and Audit Committee on the most serious business conduct concerns, including material breaches of our Code and related outcomes.

Our employees' perspectives and feedback are important to us. We survey our employees annually to better understand their experiences of working for us and their perceptions of our culture and identify areas for improvement. One of the areas included in the survey is perceptions of workplace misconduct intolerance and leadership response, providing insights to help us continuously improve the effectiveness of our programs.

Anti-Bribery and Corruption

Our Business Integrity team leads the design and governance of our global risk-based Anti-Bribery and Corruption (ABC), anti-money laundering, economic sanctions compliance and competition law compliance programs. The team is independent of our operations and projects, with experienced team members located in each of the jurisdictions where we operate.

Our ABC compliance program is designed to identify and mitigate the risk of breaching ABC laws, setting minimum mandatory performance requirements to manage this risk.

Our Business Integrity team focuses on higher bribery and corruption risk activities. The team conducts enhanced due diligence on third party representatives who will interact with government officials on our behalf. They also provide enhanced risk-based due diligence and advisory support on identified higher risk suppliers and marketing trading partners, and in relation to proposed acquisition and divestment transactions.

Business Integrity pre-approval is required for the offering, giving or receiving of above modest value gifts, entertainment and hospitality, social investments and sponsorships, attending any paid political event or activity, and offering or giving any other thing of value to a government official.

The ABC program also includes performing risk assessments, monitoring and internal control effectiveness testing, with risk-based improvements implemented where required. In FY24, anti-corruption risk assessments were conducted for the Hermosa project, Cerro Matoso and South Africa Manganese.

Employees identified as being at higher risk of exposure to bribery and corruption risks are required to complete our online ABC compliance training on joining South32, with refresher training provided in accordance with our internal training plans. Our Business Integrity team supplements this with targeted face-to-face training and awareness sessions.

OVERVIEW PROTECTING AND
RESPECTING OUR PEOPLE DELIVERING VALUE
TO SOCIETY OPERATING ETHICALLY
AND RESPONSIBLY MANAGING OUR
ENVIRONMENTAL IMPACT ADDRESSING
CLIMATE CHANGE APPENDICES

Tax Transparency

Taxation and royalty payments to governments are an important mechanism for contributing to the economies of the countries where we operate. Our approach is aligned with the ICMM's Position Statement on Transparency of Mineral Revenues and the Extractive Industries Transparency Initiative (EITI), which promotes open and accountable management of mineral resource wealth. The EITI has confirmed that South32 meets all the expectations for supporting companies.

We support the public disclosure of payments made to governments and communities, and the public disclosure by governments on contracts and licences for the exploitation of minerals and other natural resources.

Our annual Tax Transparency and Payments to Governments Report sets out our approach to tax governance and dealing with tax authorities, and details our tax payments, tax expense, international related party dealings and contracts for resource development.

+ **Learn more in our Tax Transparency and Payments to Governments Report 2024 at *www.south32.net*.**

Cyber security

Cyber security breaches are a material risk to our business.

Our proactive approach includes identifying and assessing cyber security risks, and taking steps to reduce the likelihood and impacts of an incident.

We engage independent auditors annually to review the adequacy of our cyber security risk management system and information security controls. Critical cyber security controls are also periodically assessed through a comprehensive stewardship program.

Cyber security awareness training is mandatory for all employees and select contractors on joining South32 and annually thereafter. We provide additional targeted cyber security training to identified high-risk roles.

No cyber security breaches with the potential to significantly damage our business have occurred in South32's technology environment within the last three years.

+ **Learn more about our approach to cyber security at *www.south32.net*.**

Public policy

We contribute to public policy development relevant to our industry and business through direct advocacy, such as engagement with policy makers and submissions to regulatory and policy reforms proposed by governments, and indirect advocacy though our participation in industry associations.

Participation in industry associations is an important mechanism to engage and influence matters affecting South32. Membership provides important opportunities to contribute to industry-wide public policy positions and knowledge sharing.

+ **Learn more about our approach to industry associations and the associations that we belong to at *www.south32.net/ industryassociations*.**

We recognise the importance of our participation in public policy development aligning with our own stated policies, goals and public positions on key issues. We annually assess the alignment of our member industry associations' positions on climate change with our own stated climate change approach, goals and positions.

Learn more about our FY24 review and climate change policy engagement on page 72 and about our contributions to Australian environmental reform on page 41.

Working to unlock value through AI

We recognise the significant potential of safe and well-governed artificial intelligence (AI) in improving aspects of our lives and the safety and productivity of our business.

While our approach on the use of AI at South32 is developing, we are pursuing specific areas where we believe we can deliver both near- and long-term improvements, including:

– Safety risk management through learnings from events and investigations;
– Production throughput, yields and blending enhancements;
– Operational enhancements with sustainability-related benefits, such as reduced energy and water consumption;
– Exploration and orebody knowledge to improve speed and efficiency; and
– Workforce productivity through efficiency improvements from generative AI tools.

In FY24, our focus was primarily on machine learning/AI advisory systems, leading to the development of systems to support improved output and waste reduction at Australia Manganese and optimise energy usage at Cerro Matoso.

+ **Learn more about these initiatives at *www.south32.net/Sustainability/Stories*.**

Our focus in FY25 includes using generative AI to drive improved safety outcomes and productivity, for example through the development of large language models to enhance interactions with safety data. We are also investigating the potential to use vision AI to reduce risk in vehicle interactions and the scaling of machine learning models to improve operational productivity across operations and projects.

While we believe our overall AI risk profile is currently low, we understand that this risk will increase over time as the use of AI evolves. We are working to assess and improve our AI-related controls and governance to support the safe and responsible use of AI in our business. In addition, we are evaluating our AI approach against external responsible AI frameworks to identify opportunities to further align to safe and responsible AI best practice.

RESPONSIBLE VALUE CHAIN

We seek to apply responsible business practices throughout our value chain by sourcing responsibly and enhancing product stewardship. Our aim is to build strong, mutually beneficial relationships with stakeholders and to work with suppliers and customers whose values and conduct align with ours.

Our approach to responsible value chain management involves collaboration across our operations, functions, and multidisciplinary teams, including Supply, Marketing, Sustainability Strategy, Environment Stewardship, Business Integrity and Legal.

Supplier spend by geography

- 43% Australia
- 23% Southern Africa
- 18% Americas
- 16% Rest of the world
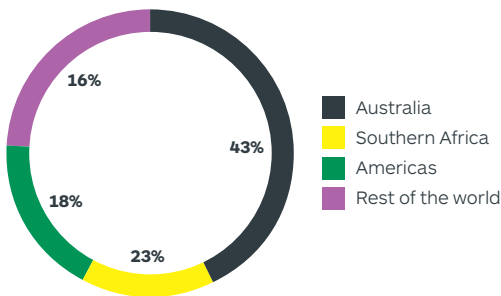
Responsible sourcing

We source a variety of non-traded goods and services from our suppliers to keep our operations running, ranging from heavy mining equipment to small electrical componentry. This supply chain includes more than 5,700[1] suppliers of non-traded goods and services across more than 40 countries.

We aim to work with suppliers with strong values and standards of conduct and that share our commitment to our 'safety guarantee' and lawful business practices. Our expectations of suppliers are outlined in our Code of Business Conduct and Supplier Minimum Requirements, available at *www.south32.net*.

Our approach to mitigating supply chain risks, which may relate to safety, security of supply, business integrity, modern slavery, or liquidity risks, amongst others, includes:

- Onboarding due diligence: our Business Integrity team and other experts assist to identify risks associated with a supplier's scope of work or profile, and to establish evaluation and due diligence criteria, as well as risk-based control activities;
- Continuous monitoring of established suppliers: we collaborate with third-party auditors to detect and address social and environmental risk factors;
- Collaborating with suppliers: to understand and remediate social and environmental risk factors identified through our monitoring processes;
- Continuously improving our processes and tools and upgrading our technology platforms to enhance the vendor onboarding experience, as well as improve vendor relations, performance management and due diligence; and
- Utilising platforms which provide access to data and insights on social and environmental risks that may be present in our supply chain.

Suppliers of services are inducted through our contractor management process, which was set up to strengthen safety and performance of our contracting partners. The process outlines clear supervision, accountability, and performance requirements and provides the basis for operational audits through our stewardship program against our internal contractor management standard.

Improving how we engage with suppliers

In FY24, we developed and launched a new external portal to enhance our engagement with suppliers of non-traded goods and services. The portal includes information about how we select and work with suppliers, our expectations and requirements, and guidance on navigating our systems and processes.

The new portal is now accessible at *www.south32.net/suppliers*.

(1) This number represents the active vendors we procured non-traded good and services from in FY24 and excludes purchasing activities related to traded goods and services, purchasing cards and non-order invoices, which reflect low value or once-off transactions, internal payments or regulatory payments.

OVERVIEW   PROTECTING AND
RESPECTING OUR PEOPLE   DELIVERING VALUE
TO SOCIETY   OPERATING ETHICALLY
AND RESPONSIBLY   MANAGING OUR
ENVIRONMENTAL IMPACT   ADDRESSING
CLIMATE CHANGE   APPENDICES

Local procurement

Local procurement is the direct purchase of goods and services within communities in which South32 operates. Suppliers are deemed as local based on their proximity to our local communities, including boundaries defined by local government areas, provinces and states.

We seek to source supplies from local businesses who meet or exceed our health, safety, environmental and social performance expectations.

+ **Learn more about our local procurement on page 30.**

Supplier modern slavery risk

Labour rights in the value chain (which encompasses human rights risks such as forced labour, child labour and debt bondage) was one of six salient human rights issues for South32 identified in FY24.

Our supplier due diligence program is our primary control to manage the risk of modern slavery within our supply chains. It comprises:

– Supplier onboarding and assessment, which involves a mandatory self-assessment to be completed by current and potential suppliers[2];

– Scorecard assessments, conducted through desktop analysis in our supply processes, applying a risk-based approach; and

– External audits conducted on select suppliers, with nine audits conducted in FY24.

Modern slavery training is mandatory for select roles across our business. The training was assigned to over 1,000 role holders in FY24 with a >90 per cent completion rate achieved. In FY24, we used a risk assessment process to identify vendors with higher modern slavery risks in either their supplier industry or country of operation and offered a suite of in-depth modern slavery training modules for them to complete, made available through our supplier portal.

+ **Learn more in our Modern Slavery Statement 2024 at *www.south32.net*.**

Product stewardship

Our approach to the stewardship of our commodities focuses on accepted best practices for their handling, transportation and use. We maintain safety data sheets for our products, based on the latest available criteria and testing, which are provided to customers for their reference when shipping, storing, handling or using products sold by our Marketing function. We also conduct internal and external audits to assess the adequacy of our product stewardship controls and the effectiveness on their application.

We are guided by principles and standards set by industry bodies and commodity associations relevant to our products. These include ICMM, the International Manganese Institute, the International Lead Institute, the International Zinc Institute, the International Aluminium Institute, the Aluminium Stewardship Initiative, the Australian Coal Industry Research Program, the Australian Aluminium Council and the National Alliance for Advanced Transportation Batteries.

Sustainability standards and certifications

Evolving climate change and other sustainability-related policy and regulations, as well as higher societal awareness of sustainability topics means that customers are increasingly considering environmental and social factors in their purchasing decisions. Customers expect transparency in their supply chains to better understand the origins and the sustainability-related characteristics of the products they purchase.

Our Marketing function gathers insights on customers' sustainability priorities and requirements, as well as emerging risks and opportunities for our business, including through proactive engagement with customers, systematised data collection, and monitoring and understanding new and emerging policies and regulations that may impact demand for and placement of our products.

Sustainability credentials from independent associations can reinforce responsible environmental and social practices and build stakeholder confidence. We continue to experience customer interest in certifications, including the Aluminium Stewardship Initiative (ASI) which is a global standard setting and certification organisation for the responsible production, sourcing and stewardship of aluminium.

In FY24, Worsley Alumina commenced the process to obtain ASI Performance Standard Certification, which provides assurance that a facility's production practices are consistent with ASI's environmental, social and governance principles and criteria. The process takes between six and 12 months to complete, with outcomes expected in H1 FY25.

Worsley Alumina's certification would add to the ASI Performance Standard Certification attained by Mozal Aluminium last year. Mineração Rio do Norte bauxite mine, in which we hold an interest, obtained ASI Chain of Custody (CoC) Certification in 2023 against the ASI CoC Standard, allowing our share of Brazil Alumina product to be ASI CoC certified.

In FY24, Brazil Aluminium continued to work towards achieving brand certification against the responsible sourcing requirements needed to qualify as a listed brand and trade on the London Metal Exchange (LME). Hillside Aluminium and Mozal Aluminium are LME-listed brands.

Responsible sourcing in the shipping supply chain

While we do not own any ships or employ any seafarers, we depend on maritime transport for delivery of supplies to our operations and our commodities to customers.

We continued to embed our enhanced due diligence program which aims to improve the identification and management of modern slavery risks across our maritime supply chain. The program includes vetting, audits and physical inspections conducted by South32, to identify potential red flags for non-compliance to the Maritime Labour Convention, with a specific focus on crew welfare.

We also participate in maritime-focused human rights initiatives and industry groups, including the Mission to Seafarers which operates the Seafarers Happiness Index, a quarterly survey that measures the satisfaction levels of seafarers across various aspects of their life and work at sea. In FY24, we collaborated with the Mission to conduct a survey for vessels that we charter, offering insights into the challenges facing these seafarers. We are using these results to identify and discuss improvement opportunities with vessel owners and operators, and in FY25 we plan to undertake the survey each quarter to provide a richer dataset and ongoing feedback loop.

In August 2024 we joined the Sea Cargo Charter, a global initiative that provides a framework promoting the disclosure of fuel use data, greenhouse gas emissions and climate alignment by charterers.

+ **Learn more in our Modern Slavery Statement 2024 at *www.south32.net*.**

[2] Requirement applied to suppliers with more than 15 employees.

DEVELOPING OUR APPROACH TO NATURE-RELATED RISKS AND OPPORTUNITIES

We recognise the continued decline of global biodiversity, impacting the health and well-being of people and ecosystems, and presenting risks for economies, businesses and capital providers. Recent years have seen both governments and corporations mobilise through policy development and commitments to action. In December 2022, almost 200 governments committed to targets and goals under the Kunming-Montreal Global Biodiversity Framework (GBF) to halt and reverse nature loss by 2030.

In January this year, ICMM published its Nature Position Statement. The Statement sets out an approach for ICMM members to contribute to a nature positive[1] future and is guided by the GBF and ICMM's existing commitments in relation to Indigenous Peoples, climate change, water, protected areas and respecting human rights.

Governance and risk management

Environment, alongside climate change, is a material strategic and governance issue for South32 that is overseen by our Board. The Board is supported by the Sustainability Committee which oversees nature-related risks and opportunities, and monitors and reviews our environmental performance in the areas of water stewardship, non-greenhouse gas air emissions, land stewardship, biodiversity, rehabilitation, waste management, and closure and legacy management.

Our CEO, together with the Lead Team, is accountable for developing and implementing our strategy. Our CEO and Lead Team are responsible for identifying and managing material and strategic risks, including in relation to environmental management, and for assessing environmental (amongst others, including legal, financial and reputational) consequences of decisions and actions and the impact on our strategy.

Operations are responsible for integrating environmental risks and opportunities into life of operation planning and risk management processes. Implementation is supported through our internal environment and climate change standard which defines minimum performance requirements for managing environmental and climate-related risks and opportunities.

Our Technical function provides guidance and support on compliance with internal and regulatory requirements, and assurance that controls are adequate and being applied effectively.

Dependencies, impacts, risks and opportunities

Our operations, people and communities are dependent on healthy functioning ecosystems. Additionally, our activities and business relationships have the potential to impact land and water resources, biodiversity and air quality, which if not appropriately managed may result in increased costs to mitigate or address such impacts, prevent or delay project approvals, and cause reputational damage.

In FY23, we commenced a program of work with the support of an external consultant to identify and assess the impacts and dependencies of our operations where we interface with the natural environment. We participated in a pilot study on the learnings and barriers to adopting and implementing the Taskforce on Nature-related Financial Disclosures (TNFD) Framework in the Australian context, sponsored by the Department of Climate Change, Energy and the Environment and Water. In consultation with ICMM, we also piloted the application of the TNFD's Locate, Evaluate, Assess and Prepare (LEAP) process at two of our Australian operations.

In FY24, we continued this program of work with a focus on deepening our understanding of present impacts and dependencies, including across the value chain, forecasting expected future impacts and dependencies, and assessing associated risks and opportunities. In addition, we completed a gap analysis of our data against core disclosure metrics of the TNFD and through ICMM, contributed to the TNFD's Sector Guidance for Metals and Mining which was published in July 2024.

This program of work will shape our approach to addressing nature-related risks and opportunities which we plan to publish in 2025, and the work we are doing to enhance our nature-related reporting and disclosures.

Partnering with others

A collaborative and cross-sector approach is necessary to support the transition of the global economy to a nature positive future.

We continue to engage with stakeholders through industry working groups, including ICMM, non-governmental organisations such as the World Economic Forum and UN Environment Programme, and consultative groups such as the TNFD Forum, to help to inform our approach and preparations for future disclosures.

We also engage with investors on environmental issues, both directly and through participation in initiatives such as the UN PRI's[2] Spring stewardship initiative for nature which launched in June 2024. This initiative convenes institutional investors to use their influence to halt and reverse biodiversity loss across the globe by 2030, with South32 selected to participate as a focus company.

---

(1) Definitions of the terms 'nature positive' and 'no net loss' are set out in the Glossary of terms and abbreviations on pages [86] to [91] of this report.
(2) Principles for Responsible Investment is a United Nations-supported international network of financial institutions working together to implement its six aspirational principles, often referenced as "the Principles" which offer a framework of possible actions for incorporating environmental, social and corporate governance factors into investment practices across asset classes.

OVERVIEW   PROTECTING AND
RESPECTING OUR PEOPLE   DELIVERING VALUE
TO SOCIETY   OPERATING ETHICALLY
AND RESPONSIBLY   MANAGING OUR
ENVIRONMENTAL IMPACT   ADDRESSING
CLIMATE CHANGE   APPENDICES

BIODIVERSITY CONSERVATION

As stewards of the lands and waters upon which South32 operates, it is our responsibility to minimise our impacts to the natural environment.

Mining, processing, refining and smelting activities can impact biodiversity through activities such as land clearing, water use and release, waste generation, and other operational activities. If not appropriately managed, this may result in adverse impacts to ecosystems, fauna and flora, for example through ecosystem conversion and habitat fragmentation, soil erosion, sedimentation of waterways, and the introduction or persistence of invasive species.

Our Approach to Biodiversity Conservation outlines our commitments and management approach to addressing impacts on biodiversity and ecosystem services, throughout the mining lifecycle. These commitments include:

– Avoiding exploring or mining in UNESCO World Heritage sites and respecting legally designated protected areas[1];

– Aiming to achieve no net loss of biodiversity for all new projects and major expansions to existing projects[2], and minimising our operational impacts through all stages of the mining life-cycle;

– Collaborating with others to contribute towards nature positive outcomes within the broader bioregions, communities and cultural landscapes in which we operate; and

– Transparent disclosure of our biodiversity conservation progress and performance.

+ **Learn more about Our Approach to Biodiversity Conservation at _www.south32.net_.**

Land stewardship

As at 30 June 2024, we owned, leased or managed over 607,000 hectares of land, which is held for operational purposes, as well as strategic and alternative uses outside of our mining activities. Approximately three per cent of our total landholdings (around 18,600 hectares) has been disturbed as a result of our activities.
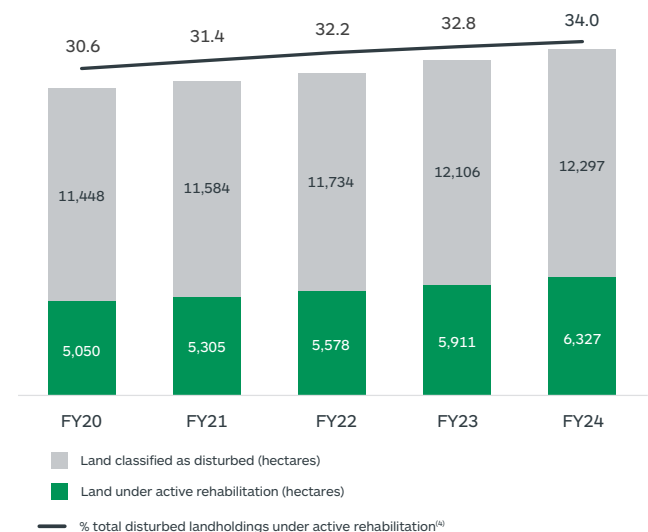
Land under rehabilitation

Thirty-four per cent (just over 6,300 hectares) of the land that we have disturbed is in various stages of rehabilitation. In FY24, over 190 hectares of land was disturbed through our activities and we undertook progressive rehabilitation activities across approximately 416 hectares, which is a 25 per cent increase from FY23.

Most landholdings under active rehabilitation are at Worsley Alumina and Australia Manganese given shallow mining methods at these operations allow for controlled removal of topsoil, extraction of ore and revegetation after mining in an area has ceased.

The below chart shows the ratio of land under active rehabilitation to total land disturbed. The higher the percentage, the greater the portion of land disturbed by our activities under active rehabilitation.

Land disturbed and under active rehabilitation[3]

	FY20	FY21	FY22	FY23	FY24
% total disturbed landholdings	30.6	31.4	32.2	32.8	34.0
Land classified as disturbed (hectares)	11,448	11,584	11,734	12,106	12,297
Land under active rehabilitation (hectares)	5,050	5,305	5,578	5,911	6,327

■ Land classified as disturbed (hectares)

■ Land under active rehabilitation (hectares)

— % total disturbed landholdings under active rehabilitation[4]

+ **Learn more about our land use in our Sustainability Databook 2024 at _www.south32.net_.**

(1) As defined in ICMM Principle 7, Performance Expectation 7.1.
(2) As defined in ICMM Principle 7, Performance Expectation 7.2.
(3) FY20 data has been adjusted to exclude South Africa Energy Coal and Tasmanian Electro Metallurgical Company which were divested in FY21, to represent year-on-year performance of current landholdings only.
(4) Represents the proportion of our total disturbed landholdings over time (sum of land classified as disturbed plus land under active rehabilitation) where rehabilitation has commenced or been completed.

Biodiversity conservation continued

Underground mines like Cannington, Illawarra Metallurgical Coal (IMC) and the Wessels mine at South Africa Manganese, and our aluminium smelters, do not have disturbed land available for progressive rehabilitation at this stage in their lifecycle.

The surface footprints of our open-cut mines, Cerro Matoso and the Mamatwan mine at South Africa Manganese, remain fairly static over time with less opportunity for additional rehabilitation due to active mining. Both operations continue to manage and monitor existing areas under rehabilitation.

In FY24, South Africa Manganese undertook a comprehensive assessment of historical rehabilitation at Mamatwan mine. Soil and vegetation conditions were evaluated, and simulations provided of how these rehabilitated areas will look in future. Improvement opportunities identified related to nutrient cycling and vegetation establishment, will be incorporated into Mamatwan's rehabilitation approach going forward.

Assessing impacts, risks and opportunities

Our operations are required to undertake biodiversity risk and opportunity screening assessments at least every five years. In FY24, assessments were completed for Cannington, Cerro Matoso and our operations in Southern Africa, considering both direct operational aspects as well as surrounding bioregions. Assessment outcomes enable us to identify and prioritise strategic conservation activities, development of mitigation measures, and collaboration and research opportunities.

In FY24, we developed a No Net Loss (NNL) accounting guideline to assist our operations and projects to apply a natural capital (or ecosystem condition) accounting framework to support the achievement of NNL outcomes. The accounting framework, which draws on existing standards, frameworks and guidelines, combines the principles of the biodiversity mitigation hierarchy with natural capital/ecosystem accounting methods through a four-step process that involves:

– Determining the ecological and biodiversity values to be protected, target end-state and baseline;

– Identifying potential impacts and dependencies;

– Applying the mitigation hierarchy; and

– Measuring the potential ecological or biodiversity gains or losses as a result of implementing the hierarchy, with the aim to achieve overall gains that are equal to or greater than losses, i.e. NNL or net gain.

The guideline was piloted at IMC and Hermosa during the year and has been incorporated into Hermosa's biodiversity management plan. We will continue to refine the framework in FY25 as natural capital accounting methods mature and to incorporate NNL guidance from ICMM which is expected to be published this calendar year.

Implementing the biodiversity mitigation hierarchy

We address impacts and risks to biodiversity and ecosystem services at our operations by implementing biodiversity management plans and applying the mitigation hierarchy (avoid, minimise, rehabilitate/restore and offset)[5].

Avoiding and minimising impacts

In addition to implementing our biodiversity management plans and mitigation strategies, specific avoidance and minimisation activities undertaken in FY24 included:

– Threatened and invasive species management programs and conservation initiatives at Australia Manganese and development of a revised Biodiversity Offset Management Plan for the Eastern Leases project;

– Adjusting our mine plan at Worsley Alumina for the proposed Worsley Mine Development;

– Evaluating options for infrastructure development at Hermosa to potentially avoid or reduce our interaction with ecologically sensitive areas; and

– A vegetation management program at South Africa Manganese to identify, remove, and monitor invasive plant species.

Rehabilitation

Progressive rehabilitation activities are integrated into our life of operation planning processes. Activities mostly occur at Worsley Alumina and Australia Manganese due to the nature of their operations. As at 30 June 2024, just over 50 per cent of the total land disturbed at Worsley Alumina and approximately 30 per cent at Australia Manganese, was rehabilitated or under progressive rehabilitation.

Progressive rehabilitation activities commence after the completion of mining activities, and generally include:

– Backfilling, landscaping and recontouring of mined areas;

– Re-spreading of overburden materials and topsoil, with a focus on directly returned topsoil from nearby newly opened mining areas, minimising the need to stockpile and deplete the quality of these materials;

– Revegetating with local native species; and

– Implementing scientific monitoring programs based on agreed success and completion criteria.

We endeavour to engage local communities including Indigenous, Traditional and Tribal Peoples to support our rehabilitation activities, including participation in the harvesting and storage of seeds and methods to facilitate successful rehabilitation at Australia Manganese.

Monitoring programs assist our operations to measure rehabilitation effectiveness using specific success and completion criteria, usually defined within environmental licences. When a monitoring program indicates a potential issue with rehabilitation, a review is undertaken with the aim to incorporate learnings and improvement opportunities into our rehabilitation processes.

Our operations also identify ways to improve their rehabilitation practices to achieve greater ecological value, primarily through collaborations with research institutions. For example, Worsley Alumina is participating in research with Curtin University on the use of Environmental DNA (eDNA), aiming to improve monitoring efficiency and increase fauna recolonisation in maturing rehabilitated areas.

Offsetting residual impacts

Where adverse impacts on biodiversity cannot be avoided, minimised or rehabilitated, conservation actions may be applied to other areas to offset that residual impact.

The proposed Worsley Mine Development includes the implementation of biodiversity offsets once all reasonable avoidance, minimisation and rehabilitation measures have been exhausted and where there remains a significant residual impact to significant flora and fauna. We have prepared a Biodiversity Offset Plan for the project to support the environmental approval process for the Worsley Mine Development.

(5) As defined in ICMM Mining Principle 7, Performance Expectation 7.2.

Worsley Mine Development

In 2019, Worsley Alumina commenced the environmental approval process with the Western Australian Environmental Protection Agency (WA EPA) to enable access to new mining areas and infrastructure development to sustain future production.

Worsley Alumina has undertaken extensive environmental assessment and consultation with a range of stakeholders on its proposal for the Project. This had led to refinements to the original proposal, including to:

– Reduce proposed native vegetation clearing from 7,119.5ha to no more the 3,855ha;

– Increase the total protected areas to over 2,500ha (an increase of over 1,100ha); and

– Increase the biodiversity offset package by approximately 3,000ha.

In July 2024, the WA EPA published its assessment report which recommended that the proposal may be implemented, subject to conditions. If imposed in their current form, several conditions would create significant operating challenges for Worsley Alumina and impact its long-term viability[6].

In August 2024, we lodged an appeal in relation to the WA EPA's assessment report, including conditions regarding:

– GHG emissions, which are not practicable, inconsistent with State and Commonwealth policy (e.g. Safeguard Mechanism) and inconsistent with robust emissions accounting standards; and

– Additional protected areas and buffers which go beyond reasonable measures for managing environmental risks of the proposal based on scientific assessment and decades of operating experience.

We intend to work collaboratively with the Western Australian Government to enable the refinery to continue to meet the State's robust environmental standards and to continue the significant contribution Worsley Alumina has made to the South West for the past 40 years.

Partnering with others

We continue to contribute to biodiversity conservation outcomes in the locations where we operate through local and regional partnerships.

In FY24, we invested US$2.9 million to support the Mount Gibson Wildlife Sanctuary conservation project and other conservation initiatives managed by the Australian Wildlife Conservancy. The aim of the project is to re-establish, monitor and protect significant populations of threatened mammal species in Western Australia.

We also continued our participation in the following initiatives in Western Australia:

– The South West Sustainability Partnership, an alliance to promote and support collaborative sustainability activities and research, with feral cat management being a primary research area in FY24;

– The Western Shield program, a wildlife conservation program focused on feral animal control, including research initiatives to enhance biodiversity in the Northern Jarrah Forest and the south-west bioregion; and

– Hotham-Williams Warlang Boodja (Hotham-Williams Healthy Country), a five-year strategic environmental partnership with the Peel-Harvey Catchment Council formed in FY21 to protect, preserve and rejuvenate the local environment.

+   **Learn more about our environmental partnerships at *www.south32.net/ Sustainability/Stories*.**

During FY24, we supported the bid made by the Australian Nature Positive Economy Cooperative Research Centre (NPECRC) for its establishment as a Cooperative Research Centre (CRC) under the Government's CRC program[7]. The NPECRC is aiming to support development of the capabilities, platforms, finance and business models, systems and behaviours needed for Australian industries to transition to a nature positive economy. Learn more at *https://naturepositivecrc. com.au*.

Contributing to environmental policy development

We support legislative and policy settings that drive improved environmental outcomes and sustainable development while allowing industry to remain competitive, enable efficient decision-making and promote transparency, accountability and stability. We contribute to environmental legislative reform and advocacy processes, both directly and through industry associations.

In Australia, the federal government has commenced a three-stage approach to reform of the national environmental law. The proposed Nature Positive framework seeks to establish (amongst other things) national environment standards, a definition of 'nature positive', conservation planning, changes to environmental assessments and approval processes, and new independent environmental entities.

We have engaged in the consultation process since January 2023, including through our membership of the Minerals Council of Australia, Business Council of Australia and the Australian Aluminium Council. Our submissions and contributions to the submissions of these industry associations have focused mainly on the importance of:

– Broad, transparent and extended consultation and clear definitions to allow stakeholders to adequately understand the implications of the reforms;

– Transitional provisions and greater collaboration between States and Territories;

– Avoiding duplication with existing policy and legislative frameworks; and

– Appropriate checks and balances in decision-making and clarity around the consideration and role in decision making of economic and social matters.

---

(6) Refer market release titled 'Worsley Alumina Approvals Update' dated 22 July 2024.
(7) The Australian Government CRC Program provides funding (up to 50 percent of the total CRC cost) for industry-led research collaborations. We have provided a non-binding declaration of commitment to support the NPECRC's bid as a partner organisation.

Biodiversity conservation continued

Preparing for closure

We recognise that in addition to demonstrating environmental and social stewardship, progressive rehabilitation helps to manage closure liabilities. Where possible, we identify and pursue progressive rehabilitation opportunities within closure plans to reduce impacts to disturbed areas within our leases and enable a clear pathway towards relinquishment of landholdings.

We have two operations nearing closure within the next ten years, Australia Manganese and Cannington. Cannington has limited opportunity for progressive rehabilitation due to the nature of its operations.

At Australia Manganese, FY24 rehabilitation activities included topsoil return trials using mulched vegetation, monitoring the outcomes of low intensity burning trials within established rehabilitation areas, and testing the application of salvaged timber within rehabilitation areas for improving fauna return. We also commenced an independent third-party assessment of existing rehabilitation and closure programs against agreed closure criteria to support continuous improvement.

In March 2024, Australia Manganese experienced high intensity rainfall and strong winds from Tropical Cyclone Megan. The full impact on rehabilitation areas is being assessed to understand the nature and extent of any additional work that may be required.

Keeping communities and the environment front of mind at Hermosa

Located in a historic mining district in the Patagonia Mountains of southern Arizona, our Hermosa project is currently the only advanced mine development project in the United States (US) that could produce two US federally designated critical minerals – manganese and zinc – both of which are essential minerals for the transition to a low-carbon world.

The Taylor zinc-lead-silver deposit at Hermosa has been designed using 'next-generation mine' principles, utilising automation and technology to drive safe production and efficiencies, and reduce environmental impact. Central to this design is managing impacts to natural and cultural resources.

Biodiversity and cultural resources

For more than ten years, a robust biological monitoring and cultural resource protection program has been in place at Hermosa, providing a baseline understanding of the natural resources and cultural resources of the area to inform our mine design and management approach.

Our biological monitoring includes conducting focused surveys for flora and fauna species throughout the year, as well as monitoring species habitats, seeps and springs, and riparian areas to support an understanding of vegetation trends and fauna use across the landscape. We have surveyed over 12,000 hectares of land to identify cultural resources present in the area, and regularly engage with Native American tribes to understand how these cultural and biodiversity resources can be protected.

Information gathered from these surveys is used as an input into Hermosa's design, with the aim of limiting impacts and achieving our goal of no net loss of biodiversity through application of the mitigation hierarchy. Examples of control measures that we are using to avoid and minimise impacts to biodiversity and cultural resources include:

– Clearance surveys for nesting birds and use of avoidance buffers and biological monitoring to protect nests;
– Use of archaeological monitoring when working with heavy equipment around sensitive cultural resources;
– Adjusting the timing of project activities to avoid disturbance during critical times of migration or breeding for certain species;
– Ensuring overhead powerlines incorporate design features to protect raptor bird species; and
– Implementing dark sky measures through shielding and light colour selections to reduce impacts to nocturnal species.

Water stewardship

Water is a valuable resource, especially in southern Arizona where arid ecosystems, extreme drought, and increasing temperatures resulting from a changing climate make water scarce. Water stewardship is therefore a primary concern that we share with communities in the region.

Featuring a limited footprint underground mine[8], Taylor has been designed with the aim of minimising environmental impact. Through efficient water use and one of the first new lined, dry stack tailings storage facilities in the US, we expect Taylor's water demand will be 75 per cent less than other mines in the region.

Building an underground mine requires extracting and relocating groundwater found near the orebody and critical underground infrastructure. The majority of this water is treated and released back into the environment. Through proactive engagement, we sought input from the community on our approach to managing excess groundwater and identified a community preference to maintain the water within the Patagonia Mountains.

In our recently submitted Mine Plan of Operations[9], we have proposed the discharge of excess groundwater into infiltration basins to support groundwater recharge[10]. These infiltration basins will play an important role in Hermosa's water stewardship by helping maintain groundwater reserves and reducing potential impacts on ecosystems that rely on groundwater sources.

---

(8) The selection of an underground mining technique and a dry stack tailings storage facility has resulted in a surface footprint for the Hermosa project of 750 acres (303.514 hectares) which is substantially less than other mining techniques such as open cut which can span thousands of hectares.
(9) Required by the US Forest Service as part of the federal review process for project activities affecting National Forest system lands, the Critical Minerals Exploration and Mine Plan of Operations is a roadmap of operational activities at the Hermosa project located on lands managed by the Coronado National Forest.
(10) Infiltration basins are shallow depressions constructed on the land surface of an underlying aquifer. Water placed in the basin infiltrates through the soil, recharging the groundwater reservoir.

WATER STEWARDSHIP

Water is a vital shared resource with high social, cultural, spiritual, environmental, and economic value, and access to safe drinking water is an internationally recognised human right[1]. Water is also a critical input for our operations, where it is primarily used for processing, suppressing dust and managing tailings, as well as for sanitation and catering for our people.

Our Approach to Water Stewardship outlines our commitment to working towards sustainably managing water resources within our operations and addressing water-related risks and challenges in the catchments where we operate.

Key aspects of our approach to water stewardship include:

– Undertaking water monitoring programs and water risk and opportunity screening assessments at our operations and projects;

– Developing controls to reduce material water-risks, taking into consideration:

  – Application of the mitigation hierarchy adapted for water stewardship, which aims to avoid water withdrawals, followed by minimisation, reuse, recycling and offsets[2]; and

  – The broader catchment context, community needs and interactions with natural ecosystems of each operation and project;

– Integrating identified material water-related risks into our risk management system and assessing water-related risks as part of our business planning processes;

– Establishing contextual and water efficiency targets to drive improved performance; and

– Reporting water-related data in accordance with regulatory requirements and established industry water accounting frameworks and practices.

+ **Learn more about Our Approach to Water Stewardship at _www.south32.net_.**

Identifying and addressing risks and opportunities

Each year we assess our operations and projects for exposure to baseline water stress using the World Resources Institute (WRI) Aqueduct Tool (v4.0), supplemented by an assessment of local context and catchment conditions.

The FY24 WRI assessment identified that Illawarra Metallurgical Coal (IMC), South Africa Manganese[3], Worsley Alumina's refinery and our Hermosa project continue to be exposed to baseline water stress. While the WRI assessment found Worsley Alumina's bauxite mine is not located in an area experiencing baseline water stress, the operation continues to be exposed to material water-related risks when considering other factors such as local operating context and catchment conditions. As such we continue to classify Worsley Alumina as experiencing baseline water stress.

In FY23 we completed our 'value of water' project which was established to develop a simple framework to support the quantitative assessment of the value of water through consideration of operational requirements and water catchment characteristics. The tool is used to support water risk and opportunity screening at our operations and for longer-term business planning processes.

Building upon this work, we incorporated updates to our water accounting methodology in FY24, in line with the Minerals Council of Australia's Water Accounting Framework and ICMM Water Reporting: Good Practice Guide. Specifically, we updated our accounting for 'other managed water' (which is water that we manage but which is not used in operational processes), providing a deeper understanding of excess water managed by our operations. This work will help inform our approach to identifying and managing risks associated with excess water in the future.

Enhancing our understanding of the unique water needs of each of our operations, both now and in the future, and finding ways to optimise local water management strategies and practices was a key focus area in FY24. We established a joint program of work between our Tailings and Environment Stewardship teams, with the aim to better integrate our tailings and surface water management.

The program is focused on developing guidance and tools to improve stormwater, sediment and erosion controls at operations, including enhancing the use of predictive water balance modelling. The overall aim of this work, which will continue in FY25, is to further improve the resilience of our operations to extreme weather events and enhance local water management practices in general.
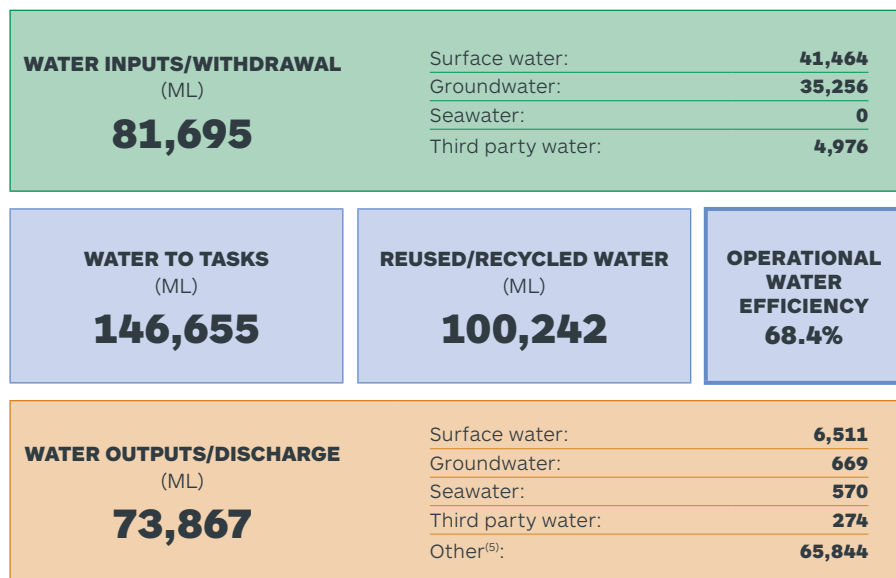
(1) As recognised by the United Nations General Assembly in Resolution 64/292.
(2) Water-related offsets address adverse impacts to water and can include the conservation and restoration of wetlands, rivers and streams.
(3) Excludes the Metalloys smelter, which was placed on care and maintenance in FY20 and has been excluded from subsequent baseline water stress assessments.

Water stewardship continued

FY24 operational water balance[4]

WATER INPUTS/WITHDRAWAL (ML) **81,695**		
	Surface water:	**41,464**
	Groundwater:	**35,256**
	Seawater:	**0**
	Third party water:	**4,976**

WATER TO TASKS (ML) **146,655**	REUSED/RECYCLED WATER (ML) **100,242**	OPERATIONAL WATER EFFICIENCY **68.4%**

WATER OUTPUTS/DISCHARGE (ML) **73,867**		
	Surface water:	**6,511**
	Groundwater:	**669**
	Seawater:	**570**
	Third party water:	**274**
	Other[5]:	**65,844**

Definitions

Operational water balance: An approach used to measure volumes of water entering, used/reused/recycled within, and leaving the operational water system to inform and manage the operational water demand.

Water inputs/withdrawal: Water drawn from the environment (surface water, groundwater or seawater) or purchased from third parties, for use in a task or activity.

Reused/recycled water: Water that has been used in an operational task and is recovered and used again in an operational task, either without (reuse) or with (recycle) treatment.

Water outputs/discharge: Water that is released from the operational water system through discharge back to the water environment or piping to third parties, and/or through other outputs, including water consumed (removed by evaporation, entrainment in product, waste or other losses) in an operational task or activity.

Operational water efficiency[6]: Percentage of water used for operational activities which is reused/recycled water.

Water to tasks: The total flow of water to a task. A task is a set of operational activities that use water.

Our interactions with water

The water sources we draw from to support our operational processes include groundwater, surface water (rainfall, rivers and streams), seawater and local municipality supply.

We aim to recover as much water as possible through reuse and recycling processes. Water that is not consumed in operational processes or retained in product is discharged back to the environment or piped to third parties, in line with regulatory requirements.

Our FY24 water withdrawal (81,695 megalitres) increased by 22 per cent from FY23, driven mostly by heavy rainfall and dewatering activities associated with Tropical Cyclone Megan at Australia Manganese and an increase in third party water imported by Worsley Alumina in response to lower than expected rainfall and surface water access constraints.

While total volumes of water reused and recycled decreased slightly (six per cent) year-on-year, driven primarily by operational activities including planned maintenance, our operational water efficiency increased to 68.4 per cent (from 67.8 in FY23), demonstrating overall improved management of water resources.

+ **Learn more in our Sustainability Databook 2024 at _www.south32.net_.**

Water stewardship targets

In 2019 and 2022, we established Contextual Water Targets (CWTs) for our operations which were identified as experiencing material water-related risks at that time. Mozal Aluminium and Hillside Aluminium achieved their targets in FY22 and FY23, respectively, and an update on progress against the remaining three targets is provided in Table 8.

In FY22, we established a Water Efficiency Target (WET) for our facilities identified as exposed to baseline water stress at that time (namely, IMC, Worsley Alumina's refinery, South Africa Manganese[7] and Mozal Aluminium) to collectively achieve a 10 per cent improvement in water use efficiency by FY27, compared to an FY21 baseline[8].

The WET is one of three KPIs for our Sustainability Linked Loan and has yearly targets based on an agreed trajectory. The FY24 WET was an efficiency improvement of ≥2 per cent compared to the baseline trajectory set in FY21, or ≥4 per cent to meet the stretch trajectory, which was achieved.

While we reached our FY24 stretch target, progress towards the WET has been impacted by delays to the installation of new flow meters at Mozal Aluminium due to weather and study outcomes of Worsley Alumina's mud washing project.

The mud washing project was investigating replacing flat bottom washers at the refinery with new high efficiency washers, with the aim to reduce energy and water consumption. In FY24, the project was returned to the pre-feasibility study stage due to the capital intensity of the expected energy and water efficiency benefits. Alternative flow sheets and optimisation opportunities will be evaluated, and the project will continue to be assessed against other energy efficiency and decarbonisation opportunities.

We continue to focus on identifying projects which have energy and water efficiency co-benefits, and opportunities for water usage reductions, including reuse of water from tailings storage facilities and efficiencies in dust suppression processes. During FY24, we explored opportunities for additional water efficiency initiatives which will be added to our pipeline of potential projects for further assessment in FY25.

---

(4) We track and report our water performance in accordance with the Minerals Council of Australia (MCA) Water Accounting Framework (WAF) and ICMM Water Reporting Good Practice Guide, which is shown in full in the Sustainability Databook 2024 at _www.south32.net._

(5) Represents our total operational water consumption; water that is removed by evaporation, entrainment (in product or waste) or other losses, and not released back to surface water, groundwater, seawater or a third party.

(6) Sum of reuse and recycled water divided by the sum of water used for operational activities (water to tasks).

(7) Excludes the Metalloys smelter.

(8) FY21 baseline was restated in FY24 following water accounting updates at Mozal Aluminium and will be restated again in FY25 to reflect the sale of IMC. In line with guidance from the WRI, Mozal Aluminium will remain included in the WET notwithstanding that the operation is no longer identified as exposed to baseline water stress.

Table 8 – Contextual water target performance

Material water-related risks	Target	FY24 Progress
Worsley Alumina (set in 2019)		
Insufficient water in the refinery catchment lake could result in water supply disruptions to the refinery. Oversupply of water in the refinery catchment lake could result in overtopping of storage facilities, leading to contamination of the site's freshwater lake.	Work towards delivering a 10 per cent improvement in water use efficiency at the refinery by reducing water volume consumed and/or improving reused/recycled water by FY28, compared to FY21 baseline.	In FY24 we completed the mud washing feasibility study. Study outcomes determined that the project should be returned to pre-feasibility stage due to the capital intensity of the expected energy and water efficiency benefits. In FY25 we are expecting to complete Worsley Alumina's product washing dilution reduction project which aims to reduce steam demand in the bauxite refining process, thereby reducing water use. We continue to focus on identifying projects which have energy and water efficiency co-benefits, for addition to our pipeline of potential projects for further assessment in FY25.
Illawarra Metallurgical Coal (set in 2022)		
Underground mining operation in a sensitive water catchment, with the potential to (i) cause damage as a result of subsidence from operations and (ii) potentially impact the ability to secure new regulatory approvals. Additionally, inrush or inundation risk associated with our underground mining operations.	Support development of a framework for incorporating cultural and environmental values into land and water stewardship in the Illawarra region by December 2024.	In FY24 we engaged with Traditional Custodians and the Illawarra Local Aboriginal Council to establish and fund the Cultural Waterways Project. Through this two-year project, a newly established ranger unit will engage with the Aboriginal community and Traditional Custodians to collaboratively manage land and water resources in the local Cataract water catchment area[9].
South Africa Manganese (set in 2022)		
Growing water scarcity, increasing competition for water resources and ageing distribution infrastructure in the region presents water supply risk to Wessels mine, Mamatwan mine, and the town of Hotazel.	Identify a sustainable community project that will give access to clean water and support the local municipality's water access plans, with an expectation to have this project implemented by the end of FY26.	In FY24, we identified a project which aims to enable access to clean water for people residing in the John Taolo Gaetsewe District (TGD) municipality, through the installation of solar-powered pumps to extract water in the local aquifer through existing boreholes. The TGD municipality is in South Africa's Northern Cape province, and is where the town of Hotazel and our Wessels and Mamatwan mines are located. We established a project plan and consulted relevant stakeholders, including local communities. Engineering designs for the solar panels have commenced, and the installation of pumps and borehole pumping is due to begin in FY25.

Water quality and compliance

Local regulatory authorities set compliance requirements through permits and licences, which are managed by operations and projects through monitoring programs, as well as impact and risk assessments. Annual verification processes are also undertaken by our water stewardship team to confirm accurate allocation of water quality categorisation based on materiality and risk.

In FY24, there were no significant incidents of non-compliance with water-related regulatory requirements.

Partnering with others

We participate in relevant regional and global water stewardship groups and forums, as well as industry associations such as ICMM and the Minerals Council of Australia, to collaborate on water stewardship, as well as gain and share knowledge. We continue to engage with communities and other stakeholders to identify, assess and realise opportunities to collaborate and advocate for enhanced water stewardship outcomes within catchments where we operate.

Supporting community access to safe drinking water at Hillside Aluminium

Hillside Aluminium has partnered with the local King Cetshwayo District Municipality (KCD) to help enhance and sustain water security for residents in the area.

The KCD has endured long-term water access challenges due to a lack of adequate water infrastructure, meaning that people in some areas have to travel long distances to find and transport water for their households and livelihoods.

In FY24, Hillside Aluminium invested ZAR5.7 million to support the partnership, providing more than 10,000 people and 1,250 households in the KCD with reliable access to clean and safe water.

+ Learn more at *www.south32.net/Sustainability/Stories*.

---

(9) Year one of the project will focus on establishing the ranger unit, community engagement, on-site cultural assessments, and developing a resource management plan. Year two will focus on the implementation of community-approved actions.

TAILINGS MANAGEMENT

Tailings are a by-product of the mining and refining process which remain after recoverable metals and minerals have been extracted from mined ore. Tailings are commonly in the form of a slurry (a mixture of solids and process water) and are discharged into a Tailings Storage Facility (TSF). The safe management of TSFs is essential to protect our people, the environment and surrounding communities.

Our Approach to Tailings Management outlines our commitment to safe and responsible management throughout the lifecycle of the TSFs that we operate. It describes our approach to tailings management, including resourcing and accountabilities, emergency preparedness and response, community engagement, and reporting and disclosure.

+   **Learn more about Our Approach to Tailings Management at _www.south32.net_.**

Our internal dam management standard defines minimum performance requirements for responsible dam management. Performance requirements for managing tailings-related risks include:

– Conducting risk assessments at operated TSFs and associated major projects, and commissioning independent technical reviews of design, operational performance and risks;

– Managing identified risks through our risk management system and in accordance with the consequence category of the TSF as defined by applicable regulatory requirements, guidelines and standards, including the GISTM[1];

– Regular monitoring and inspection of our TSFs, including by site-based Responsible Tailings Facility Engineers and external Engineers of Record; and

– Providing training for all employees who work with TSFs at our operations, which is tailored for the specific context of each operation.

The standard requires adherence to the technical guidelines of the GISTM, Australian National Committee on Large Dams (ANCOLD) and/or Canadian Dam Association, depending on the jurisdiction of the operation or project, as well as local laws and guidelines. The more stringent requirement of each guiding document takes precedence where a conflict exists.

The overarching aim of our tailings management approach is to achieve stable tailings, which involves understanding tailings behaviour, reducing water content at TSFs and developing innovative construction techniques. Since 2021, our approach has focused on keeping the facilities as dry and as dense as possible. This approach has reduced our overall risk profile and improved our ability to react to extreme weather events.

Classification of our operated TSFs

As at 30 June 2024, there were 31 operated TSFs at our operations, as shown below.

Table 9 - Consequence classification of our operated TSFs[2][3]

Operation	TSFs	Low	Significant	High	Very High	Not applicable
Australia Manganese	10	-	6	4	-	
Cannington	3	-	-	3	-	-
Cerro Matoso	1	-	1	-	-	-
Hermosa project	1	-	1	-	-	-
Illawarra Metallurgical Coal	1	-	1	-	-	-
South Africa Manganese	6	4	-	-	-	2[4]
Worsley Alumina	9	-	1	4	4	-
Total	**31**	**4**	**10**	**11**	**4**	**2**

Our non-operated joint ventures (NOJVs) are independently managed and have their own operating and management standards. Through participation in governance structures, including tailings management committees, and providing support and guidance on our tailings management approach, we encourage NOJVs to consider alignment to industry guidelines and standards. We also conduct internal assurance activities at NOJVs focused on alignment with our dam management standard and the GISTM, and to inform understanding of risks.

+   **Learn more about our TSFs at _www.south32.net_.**

---

(1) Global Industry Standard on Tailings Management.
(2) The consequence classifications described in this report align to the GISTM, which provides for the classification of TSFs into five levels (low to extreme), based on modelled consequences of a failure. The GISTM classification is primarily influenced by the potential impact of a potential dam break on the surrounding environment, communities and infrastructure, and does not consider or reflect the physical stability of the TSF.
(3) Considerations in determining the GISTM classification include potential population at risk; potential loss of life; environment; health, social and cultural factors; and infrastructure and economics. Considerations are not weighted such that if a TSF is assessed as high risk for social and cultural factors, the overall TSF consequence classification would be high risk. We keep our TSF consequence classifications under regular review.
(4) Two dams at South Africa Manganese (Metalloys smelter) are classified as TSFs for internal governance purposes only and do not meet the definition of tailings under GISTM.

Hermosa's TSFs

The feasibility study for Hermosa's Taylor deposit includes two state-of-the-art dry stack TSFs. The TSFs have been designed in accordance with our dam management standard and by applying an approach consistent with the GISTM and the ANCOLD guidelines.

The first TSF has already been established as part of our voluntary remediation program completed in 2020. The TSF remained inactive in FY24 but will become active later this calendar year now that construction of Taylor has commenced. A second TSF is planned for construction in 2029, requiring federal approvals.

All tailings will be thickened and filtered with approximately half sent back underground as paste backfill. Study work continues on the potential to use processed tailings from Taylor as paste backfill for mining of the Clark deposit (if developed), which would further reduce surface tailings storage requirements.

+ **Tailings management data is available in our Sustainability Databook 2024 at _www.south32.net_.**

Global Industry Standard on Tailings Management (GISTM)

Established in 2020, the GISTM aims to strengthen TSF management practices in the mining industry by integrating social, environmental, local economic and technical considerations over the TSF lifecycle. We are committed to achieving alignment with the GISTM for all operated TSFs.

As of August 2023, all South32 operated TSFs with a very high consequence classification aligned with the GISTM in accordance with ICMM expectations. Public disclosure information for these TSFs is available at _www.south32.net_.

In FY24, we continued our focus on embedding the GISTM into our processes and ways of working, including conducting second line stewardship activities to assess and validate GISTM conformance.

We continue to work towards our commitment to achieve GISTM alignment for our high, significant and low consequence classification TSFs by August 2025.

FY24 progress and activities

In FY24, we conducted internal stewardship reviews for TSFs at Cerro Matoso and South Africa Manganese. Findings included opportunities to deepen understanding of water management requirements and enhance the use of predictive water modelling.

As our climate continues to change, so will the frequency, magnitude and location of weather and climate events that may impact our business. Some of our operations received significantly lower than average seasonal rainfall in FY24, presenting potential challenges around reliable water supply. Conversely, two extreme weather events caused operational disruption, specifically impacts associated with Tropical Cyclone Megan at Australia Manganese and an extreme rainfall and flooding event at Cannington. Our TSFs are designed to accommodate extreme storms. The TSFs at these operations performed within their design tolerances and the integrity of the facilities was unimpacted by these weather events.

Integrating tailings with surface water management was a key focus area in FY24, with work ongoing to enhance understanding of the water needs of each operation and find ways to optimise water management strategies and practices, including through the use of predictive water management tools. The resilience of our TSFs to the physical impacts of climate change was assessed in FY22 as part of our GISTM compliance activities, with all facilities meeting requirements. These assessments will be further reviewed in FY25 to support the continued design and management of our TSFs in line with contemporary criteria and guidance.

+ **Learn more about our water stewardship on page 43 and physical climate change risk management on pages 74 to 76.**

We continue to seek and assess opportunities to unlock value at our operations through tailings reprocessing and remining for mineral recovery. In FY24, this included:

- Studying options for remining fine tailings at Australia Manganese, including conducting amphiroller (specialist equipment used in mud-farming) trials to assist with drying and increasing tailings density;
- Progressing studies for tailings reprocessing at Worsley Alumina, with a number of potential options being evaluated; and

- Studying reprocessing residual zinc, silver and lead from tailings dams at Cannington, as well as options to reduce the quantity of remaining tailings for closure.

Closing tailings storage facilities

TSFs can be a permanent feature of the landscape post mining activities. TSFs may undergo physical changes such as consolidation, reshaping, capping, rehabilitation, and may also be subject to future physical climate change impacts.

Stakeholder engagement with affected communities on decisions that may affect public safety and the overall integrity of a TSF are an important part of our approach to managing both tailings and closure.

During FY24, we progressed TSF closure studies for Cannington and Australia Manganese. We also increased our engagement with community and Traditional Owner groups on our TSF management. At Cannington this involved presenting the outcomes of our dam break assessment, receiving feedback on our approach and discussing community concerns.

Transparency and disclosure

Transparency in disclosing our TSF management approach and progress is essential to build trust and demonstrate delivery on our commitments. Our disclosures are aligned with requirements of the GISTM[5] and the Church of England TSF disclosure requirements[6].

We actively support improvements in tailings management across our industry and the development of disclosure standards through our participation in the ICMM Tailings Working Group, industry conferences and research projects.

We engage with communities and other stakeholders to build relationships and share information on our tailings management approach and emergency preparedness and response procedures (where relevant).

+ **Learn more about our emergency response procedures on page 19.**

---

[5] GISTM Principle 15.1: Publicly disclose and provide access to information about the tailings facility to support public accountability. Our Principle 15.1 disclosure is available at _www.south32.net_.

[6] In response to the Church of England Pensions Board and the Council on Ethics Swedish National Pension Funds request for specific disclosures of TSFs. Each year our TSF disclosure is revised and published publicly.

WASTE, CONTAMINATION AND AIR EMISSIONS

The safe management of waste, contamination risks and air emissions from our operations and projects is essential to operating responsibly and we are committed to minimising impacts to our people, communities and the environment.

WASTE MANAGEMENT

The bulk of our waste volumes originates from tailings, which are the materials left after we have removed the target minerals from the ore. Other waste streams include rock, water and other materials which may contain hazardous chemicals or with dangerous physical properties, as well as non-hazardous waste.

Key aspects of our approach to waste management include:

– Record keeping of the waste generated, disposed of, and recycled/reused by our operations;
– Integration of waste volumes and storage facilities into planning processes; and
– Application of the waste mitigation hierarchy which aims to limit waste production and prioritises waste prevention, followed by minimisation, reuse, recycling, recovery and disposal.

Our operations are required to maintain waste registers which document all waste generated, disposed of and recycled/reused either on or off-site, including quantities, characteristics, and storage locations.

The waste registers assist operations to identify potential impacts, risks and opportunities from their waste streams and help to inform the design and implementation of controls for the safe handling, segregation, storage, transport and disposal of waste. Disposal of waste must only be carried out in engineered and approved facilities and in accordance with established operational procedures and applicable local laws and regulations.

Operations are required to implement risk-based governance processes to verify that their record keeping, and waste treatment, handling and disposal practices adhere to local laws and internal requirements.

Contamination

If not appropriately managed, water discharges and runoff from tailings, spills, leaks or leaching of chemical elements, can lead to environmental contamination.

Our approach to managing contamination risk involves applying the Source Pathway Receptor method to identify contamination risks and develop controls to minimise potential adverse environmental and health impacts, maintain compliance, and reduce associated long-term costs and closure liabilities.

Operations maintain contamination registers outlining the location of all known contamination, as well as a description of the history of the originating event, control actions and remediation details. In FY24, no significant new areas of contamination were identified at our operations.

Our internal security, crisis and emergency management standard defines minimum performance requirements and controls to manage risks related to critical incidents, with the aim of protecting our people, and minimising impacts to the environment and communities.

PFAS and acid rock drainage

Per- and polyfluoroalkyl substances (PFAS) are synthetic chemicals. Certain PFAS are effective at restricting heat, stains, grease and water, making them useful for a range of applications, including metal plating and in fire-fighting foams. Acid Rock Drainage (ARD) is acidic water rich in heavy metals that can occur during and after site operation as a result of exposing naturally encapsulated rock and soil to air and water.

Our operations are required to specifically identify and manage risks relating to PFAS and ARD. Risk assessments for PFAS and ARD are required to detail the potential exposure risks for the environment and community and include assessment of any immediate risks that may require active management.

Our Technical function monitors for changes in regulations relating to key contaminants, such as PFAS and ARD, and supports our operations to implement suitable management plans aligned to local regulations, as appropriate.

In FY24, we continued our program of work to eliminate the use of PFAS at our Australian operations. This work will continue into FY25 for Worsley Alumina, while we continue to investigate the potential presence of PFAS in products used at our other operations. The further embedding of contamination prediction and management critical controls into our risk management approach is also a focus for FY25.

ARD has the potential to occur at Cannington, Cerro Matoso and the Hermosa project. Cannington manages ARD risk through the application of appropriate cover systems and stormwater management. Cerro Matoso continues to study ARD risk management approaches, with learnings to be incorporated into planning processes, while stormwater continues to be actively managed. At Hermosa, adaptive management is being applied to reduce ARD risk, including the use of a dry stack tailings storage facility and water treatment when necessary.

Using artificial intelligence to improve manganese output and reduce waste

Innovation and technology can play an important role in helping to make our operations cleaner, safer and more productive. Through Innovate32, our approach to enabling innovation across our organisation, Australia Manganese has developed a new artificial intelligence advisory system.

The Advanced Process Control advisory system uses analytics and machine learning to help improve overall recovery and output from each tonne of mined manganese ore processed. Following deployment of the system in early FY24, we saw a reduction of manganese content in waste of over 10 per cent.

Over time we plan to work on refining the advisory system, which will become 'smarter' by capturing learnings and operator feedback. Using the learnings from this initiative, we are actively assessing and progressing similar value-adding opportunities for artificial intelligence across our business.

AIR EMISSIONS

Air emissions are the non-greenhouse gas air emissions associated with our activities, which include gaseous air emissions such as sulphur oxides (So_x), nitrogen oxides (No_x) and fluoride, and particulate matter, also known as PM, such as dust. If not adequately managed, gaseous and particulate emissions from our operational activities can have a negative impact on ambient air quality.

Identifying and addressing potential impacts

We apply national and global standards for assessing ambient air quality. This includes Australia's National Environment Protection Council's National Environment Protection Measure (Ambient Air Quality).

We identify air emissions sources and assess potential impacts using the Source Pathway Receptor method. This starts with locating where the air emissions originate (source), followed by assessing how they can travel through the environment (pathway). Lastly, consideration is given to who or what could be affected (receptor), being workers, communities or the environment. This proactive approach enhances our ability to identify and direct our efforts towards our most material air emissions, which include coal dust, manganese dust and hydrogen fluoride associated with aluminium smelting.

We convene a global working group of Health and Safety, Environment and Community representatives to guide our approach to reducing community health risk associated with air emissions, in particular manganese dust. Led by our Health and Hygiene team, the group works to:

– Establish a comprehensive understanding of the community health risk profile at relevant operations and projects;

– Set global occupational exposure limits and community exposure reference values (a reference value is an inhalation reference exposure level below which no adverse effects due to prolonged exposure would be expected in the general public), taking into consideration legislative requirements, latest research developments and industry best practice;

– Monitor legislative requirements, latest research developments and industry best practice; and

– Identify ways to improve the effectiveness of our risk management approach so that community exposure remains within safe and acceptable limits.

Air quality monitoring

Our air quality monitoring programs include real-time monitoring and compliance monitoring capabilities.

For example, at Australia Manganese we have installed E-Samplers[1] around the peripheries of neighbouring communities. The E-Samplers allowing continuous monitoring of ambient air quality and a real-time response to any exceedance of PM trigger levels. We also utilise High Volume Air Samplers[2] to monitor fugitive dust levels. Where a compliance monitoring dust exceedance is identified, it is investigated to identify the likely root cause and contributing factors and appropriate corrective actions to prevent future exceedances or occurrences. Details of the investigation and management of the identified corrective actions are captured within our risk management system.

We integrate data from air quality monitoring programs into our global environmental data management platform, EQuIS. This platform analyses performance and identifies trends to improve decision-making and performance to protect air quality.

Workforce exposure

Worker exposure to airborne contaminants, such as particulate matter and gaseous air emissions, is managed as a material health risk within our business. Our approach includes identifying hazards and setting thresholds for occupational exposure that are considered safe and are not likely to cause adverse health impacts.

(1) An E-SAMPLER is a dual technology instrument that combines real-time measurement of light scatter with the standard of filter methods for monitoring particulate matter monitoring and total suspended particles.
(2) High Volume Air Samplers are a type of air sampler that sample more than 1,500 cubic metres (m^3) of air over a 24-hour period.

Waste, contamination and air emissions continued

Mitigation measures

Our operations implement a hierarchy of controls to mitigate air emissions risk, minimise impacts and support compliance with internal and regulatory requirements. Depending on the location and nature of an operation's activities, these controls may include:

– Site inductions, including on dust awareness and management requirements;

– Air quality control systems to remove gases and particulates from buildings and conveyors;

– Air pollution control devices, such as wet scrubbers which can remove certain air emissions by capturing them in liquid droplets;

– Use of water trucks to water unsealed roads to minimise dust generation and in stockpile areas as required;

– Covering of trucks, conveyors and railcars;

– Storing and handling of materials indoors;

– Applying dust suppressants to unpaved roads;

– Progressive rehabilitation and vegetation of boundary areas; and

– Implementation of blast design and management controls to minimise potential for dust and fume generation.

Partnering with others

We understand our responsibility to minimise the actual and potential impacts of our activities and business relationships to the environment and communities, including those near our operations and along logistics routes.

Transportation of our products can result in air emissions outside of areas where we operate. We work with logistics service providers to mitigate potential impacts along transportation routes and at transfer locations, such as ports. We are establishing programs in conjunction with our service providers to monitor and continuously improve the performance of air emissions management systems.

We endeavour to engage local communities to inform our approach to air emissions management and understand whether controls are being effectively applied.

Research and innovation

Our membership of industry associations, such as ICMM and the International Manganese Institute, provides guidance and research into the best practice management of potential community health impacts and helps inform our approach to community health.

The effective management of air pollutants remains a key challenge and focus area for our industry. In FY24, we continued our support for the Electric Mine Consortium, which aims to accelerate progress to mine electrification. Electrification poses many opportunities to reduce exposure to diesel particulates, amongst other economic and environmental benefits.

Two key trials commenced at Cannington in FY24, involving three battery electric light utility vehicles and a battery electric type of loader. Cannington is testing the performance of the units to assess if they can meet safety, reliability, range and capability requirements in an underground operational setting. Trials like these can help to inform the design of our next generation of mines, particularly the elimination and reduction of diesel particulate matter (diesel exhaust) in underground mining operations.

+ Learn more at **www.south32.net/ Sustainability/Stories**.

We also continued our participation in ICMM's Innovation for Cleaner Safer Vehicles (ICSV) program, which is focusing on the development of GHG emission-free surface mining vehicles, minimising operational impacts of diesel exhausts and making vehicle collision avoidance technology available to mining companies.

CLOSURE

We are committed to closing our operating assets in a responsible manner that aligns with our purpose and meets our regulatory obligations and commitments to stakeholders. We prioritise effective closure planning from the early stages of development and throughout the lifecycle of our operations.

Our Approach to Closure outlines our commitments and management approach, including our approach to planning and provisioning, progressive rehabilitation, studies and preparative work, closure execution and outcome monitoring.

+   **Learn more about Our Approach to Closure at _www.south32.net_.**

Planning and preparing for closure

Our internal closure standard defines the minimum requirements for closure-related activities throughout all stages of the operational lifecycle. Operations design local systems of work to implement the standard and local requirements.

We maintain closure plans for all our operations and projects under our operational control, which outline criteria, land use options, and cost estimates for closure and progressive rehabilitation. These plans are annually assessed against our internal closure, environment and climate change, and social performance standards and associated procedures by independent auditors and closure specialists.

All closure plans are reviewed at a frequency required to meet regulatory reporting requirements and/or new project approvals, or alternatively at least every three years where there is no regulatory requirement to review.

We recognise that progressive rehabilitation demonstrates environmental and social stewardship and helps to manage closure liabilities. We pursue progressive rehabilitation opportunities within our closure plans to reduce impacts to disturbed areas and to enable a clear pathway for relinquishing landholdings once rehabilitation obligations have been satisfied.

+   **Learn more about rehabilitation on pages 39 to 42.**

We also partner with industry leaders and forums such as the ICMM Closure Working Group and the Cooperative Research Centre for Transformations in Mining Economies (CRC TiME) to benchmark our planning approach against emerging practices and research developments.

FY24 progress and activities

In FY24 we developed a global progressive closure procedure to define key roles and accountabilities for the implementation of closure activities during the life of an operation and support the implementation of our internal closure standard. We also completed closure maturity assessments for Australia Manganese, Cannington and Illawarra Metallurgical Coal utilising ICMM's Closure Maturity Framework to enhance our understanding of the maturity of our progressive rehabilitation and closure planning activities and identify areas for improvement.

Closure engineering studies continued in FY24 for our operations nearing closure within the next 10 years, specifically Cannington and Australia Manganese. Australia Manganese progressed from concept to pre-feasibility study phase. A third-party engineering provider has been engaged to support the closure pre-feasibility assessment and a full program of pre-feasibility studies is anticipated to commence in FY25.

We completed social-focused closure baseline assessments at both operations during FY24. This helped inform a social impact and opportunities assessment completed at Cannington during the year and will inform the same assessment for Australia Manganese which will be completed in FY25. Insights and findings from the assessment will inform our ongoing closure planning and will continue to be refined in consultation with local communities.

Stakeholder management

Closure is a complex, evolving and iterative process, which involves collaborating with a wide range of stakeholders, including our people, government and regulatory agencies, local businesses and industry associations. Our closure-related engagement with communities and regulators for Cannington and Australia Manganese in FY24 included:

– Developing a closure communication strategy to facilitate effective communications on our closure activities;

– Constituting a steering committee at Australia Manganese with representatives from the operation, the local Anindilyakwa Land Council, the Northern Territory Government and the Australian Government (National Indigenous Australians Agency). The committee convenes to discuss project management and governance, closure aspirations and learnings from other mine closures in the region, with the aim to leave a positive legacy for Traditional Owners and local residents and businesses;

– Interviews with community and local government representatives to inform the social impact and opportunities assessment at Cannington. Interviews included discussions relating to qualifying current demographic conditions, and understanding regional employment market conditions; and

– Engagements with local Traditional Owner groups relating to identification and mapping of cultural values within our pastoral leases adjacent to our mining operations at Cannington to determine opportunities for ongoing heritage protections.

CLIMATE CHANGE

As a global mining and metals company, we have an important role to play in responding to the risks and opportunities of climate change: to produce commodities critical for the transition to a low-carbon world[1]; and do so in a way that seeks to contribute value to society and minimise environmental impact.

Our approach to climate change aligns with our purpose, is integrated with our strategy and is focused on:

– **Reshaping our portfolio** to commodities critical in the transition to a low-carbon world;

– **Decarbonising our operations**, with an initial focus on those which account for the majority of our operational greenhouse gas (GHG) emissions;

– **Working with others** to decarbonise the value chain and to innovate and address shared challenges; and

– **Understanding and responding to the potential physical impacts of climate change** on our business to build operational resilience.

Our approach is designed to protect and unlock long-term value, enhance our competitiveness in a low-carbon future and build operational resilience.

Targets and metrics

We support the objectives of the Paris Agreement and have set a target[1] to halve our operational GHG emissions (Scope 1 and Scope 2) by 2035 from our FY21 baseline[2][3]. We also have a long-term goal[1] to achieve net zero GHG emissions across all scopes (i.e. Scope 1, 2 and 3) by 2050.

Further details about the assumptions and conditions on which our target and goal are based, and our plans to achieve them, are provided in our 2022 Climate Change Action Plan.

We use a range of metrics and measures to assess and manage climate-related risks and opportunities, including:

– Copper equivalent production, revenue and capital expenditure for our commodities, including 'transition materials' as defined by Climate Action 100+[4];

– Operational GHG emissions, the operational GHG emissions intensity of our products, and progress of decarbonisation studies, projects and initiatives;

– Scope 3 GHG emissions (including GHG emissions of non-operated joint ventures) and progress on initiatives and partnerships with 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 the relevant chapters of this report and our Sustainability Databook 2024.

We have also committed to not develop or invest in any greenfield metallurgical coal projects or any new greenfield energy coal basins.

Climate-related disclosures

Since FY17, we have been disclosing our climate change approach and progress having regard to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We seek to continuously improve our disclosures, and in FY24, commenced preparation for the expected implementation of mandatory climate-related financial reporting in Australia, including identifying enhancements necessary to meet future reporting requirements under the draft Australian Sustainability Reporting Standards.

In accordance with the UK Listing Rules set by the UK Financial Conduct Authority, we believe that our disclosures in this report are consistent with the TCFD's four recommendations and 11 recommended disclosures. An index setting out where information relating to each recommended disclosure can be found in this report, together with references to additional relevant information in other documents in our 2024 Annual Reporting Suite, is provided in our Standards and Frameworks Reporting Index 2024, available at _www.south32.net_.

Supplementary climate-related disclosures available at _www.south32.net_ include:

– Our 2022 Climate Change Action Plan which was published in our Sustainable Development Report 2022 and the Sustainability Databook 2022;

– The modelling from our FY23 1.5°C scenario which was published in our Sustainable Development Report 2023 (pages 93 to 95) and Sustainability Databook 2023; and

– A description of our GHG emissions calculation methodology and GHG emissions data for FY24 and prior periods which are available in our Sustainability Databook 2024.

(1) In this report we use particular terminology in relation to climate change. Definitions of the terms 'goal', 'target', 'low-carbon' and 'low-carbon aluminium' when used in the context of climate change are set out in the Glossary of terms and abbreviations on pages 86 to 91 of this report.
(2) This is a medium-term target as defined in the Climate Action 100+ Net Zero Company Benchmark Disclosure Framework Assessment Methodology V2.0 – 2023.
(3) FY21 baseline adjusted to exclude GHG emissions from South Africa Energy Coal and Tasmanian Electro Metallurgical Company, which were divested in FY21.
(4) The Climate Action 100+ Net Zero Standard for Diversified Mining defines 'Transition materials' to include key transition materials (KTMs) and other transition materials (OTMs). KTMs include lithium, copper, nickel, cobalt for example, while OTMs include aluminium, alumina and bauxite, silver, zinc, manganese and lead for example (both lists are not exhaustive).

CLIMATE CHANGE ACTION PLAN

In 2022 we published our first Climate Change Action Plan (CCAP), which was prepared in accordance with the recommendations of the TCFD and describes our approach and the actions we are taking to address the risks and opportunities that climate change presents for our business.

The CCAP was put to a non-binding advisory vote at our 2022 Annual General Meeting, receiving strong shareholder support with 89.6 per cent of the votes cast in favour of the resolution.

We are currently working to develop our next CCAP and intend to put it to a non-binding advisory vote at the 2025 Annual General Meeting.

Implementation highlights and key challenges at a glance

We have been working towards delivering the commitments and actions outlined in our CCAP. A summary of key progress highlights and challenges since its publication in September 2022 is outlined below, with further details provided in the relevant section of this chapter.

Portfolio reshaping:

We are executing our strategy to identify and pursue opportunities to reshape our portfolio toward commodities that are critical for the transition to a low-carbon world. We have:

– Grown our copper and low-carbon aluminium[1] production capacity, realising the benefits of FY22 transactions and decisions[5];

– Approved the development of Hermosa's Taylor zinc-lead-silver deposit[6] and incorporated low-carbon principles into its design to drive efficiencies and lower operational GHG emissions;

– Entered into a binding agreement to sell our metallurgical coal business[7] and divested our interest in the Eagle Downs metallurgical coal project[8];

– Completed the selection phase pre-feasibility study for Hermosa's Clark deposit, confirming the potential to supply battery-grade manganese to the North American electric vehicle supply chain[9];

– Expanded our position in Argentina's San Juan province which is rich in copper reserves; and

– Updated our 1.5°C scenario to reflect evolving climate science, markets and stakeholder expectations and reassessed the resilience of our portfolio under a rapid global transition.

Decarbonisation:

Our FY24 operational GHG emissions decreased six per cent from FY23 levels and two per cent from our FY21 baseline[3].

Finding solutions to decarbonise our operations is one of our most complex challenges and we continue to adapt our approach as regulatory, political and technological landscapes evolve. We have:

Worsley Alumina

– Converted two coal-fired boilers to natural gas, contributing to a 14 per cent reduction in the refinery's FY24 operational GHG emissions against FY21 levels;

– Progressed our pipeline of decarbonisation studies, with certain projects placed on hold or rolled into a broader steam electrification pre-feasibility study to assess opportunities to optimise commercial and technical outcomes;

– Studied potential workforce impacts from our decarbonisation plans and participated in the Collie Just Transition Working Group; and

– Engaged with government and industry on potential decarbonisation pathways and options for the south-west region of Western Australia, recognising the refinery's long-term electrification depends on a comprehensive low-carbon energy solution for the region.

Hillside Aluminium (Hillside)

– Converted 36 per cent of Hillside pots to AP3XLE energy efficiency technology, while studies completed in FY24 concluded EnPot technology is not viable for the smelter;

– Completed a formal Request for Information process to understand the cost and availability of renewable energy from South African independent power producers, identifying that:

  o It is uncertain if all proposed renewable energy projects in constrained parts of the South African grid will be able to connect;

  o The large amount of grid firming required to meet the multiple gigawatts and consistent baseload power demand of Hillside means that a comprehensive solution is needed to establish an affordable blended tariff of renewable energy sources and grid firming capacity, for which collaboration with the South African Government is necessary; and

  o We need to focus our stakeholder engagement approach on partnering with Eskom and the South African Government towards a comprehensive low-carbon energy solution for Hillside beyond 2031.

– Identified that if the EU CBAM's[10] payable tariff is expanded to aluminium indirect GHG emissions, low-carbon electricity options potentially available to Hillside (such as purchasing low-carbon energy with renewable energy certificates or nuclear energy attributes) may not reduce tariff exposure due to the EU CBAM's GHG emissions calculation methodology not aligning with the GHG Protocol. Consequently, we have discontinued our exploration of the potential use of nuclear energy attributes to lower the GHG emission intensity of Hillside's product.

---

(5) Acquisition of a 45 per cent interest in the Sierra Gorda copper mine completed on 23 February 2022, acquisition of an additional 16.6 per cent shareholding and related rights in Mozal Aluminium completed on 31 May 2022 and decision to participate and invest in a restart of the Alumar aluminium smelter announced on 6 January 2022.
(6) Refer to market release 'Final investment approval to develop Hermosa's Taylor Deposit' dated 15 February 2024.
(7) The agreement became unconditional on 29 July 2024 and is expected to complete on 29 August 2024. Refer to market release 'Sale of Illawarra Metallurgical Coal' dated 29 February 2024.
(8) Refer to media release "Agreement to divest interest in Eagle Downs" dated 12 February 2024. The transaction completed on 12 August 2024.
(9) Refer to market release 'Hermosa Project Update' dated 8 May 2023.
(10) The European Union Carbon Border Adjustment Mechanism (EU CBAM).

Climate change action plan continued

Mozal Aluminium

– Engaged extensively with Eskom, Hidroeléctrica de Cahora Bassa and the Government of the Republic of Mozambique to secure an affordable, long-term low-carbon energy source for the smelter beyond 2026.

Illawarra Metallurgical Coal

– Exceeded our 67 per cent target for post drainage capture efficiency of coal seam gas at Appin mine;

– Installed new gas drainage infrastructure and flaring technology to convert methane to carbon dioxide which reduces the potency of GHG emissions at the Dendrobium mine, ready for when mining advances into the higher gas areas of the mine; and

– Progressed the ventilation air methane (VAM) mitigation study into feasibility study phase and conducted an open innovation challenge focused on abatement of low concentration VAM.

Working with others on shared challenges:

We have:

– Enhanced how we measure and report Scope 3 GHG emissions;

– Commenced engaging shortlisted suppliers and customers on GHG emission reduction partnerships;

– Partnered with Australia's largest freight operator to trial a battery electric locomotive at Worsley Alumina;

– Analysed shipping GHG emissions abatement opportunities across our business and joined the Sea Cargo Charter;

– Collaborated with Klaveness Combination Carriers to develop a mechanism to link freight paid for the shipping of caustic soda to the carbon dioxide emissions of their vessels;

– Participated in cross-industry technology and innovation initiatives and conducted battery electric mobile equipment trials at Cannington; and

– Engaged on climate-related policy developments and regulatory reform.

Potential physical climate change impacts:

We have:

– Embedded our program on physical climate change impacts into our Group risk management system and governance framework;

– Embedded physical climate change impacts into life of operation plans, including closure; and

– Assessed climate change impacts on the supply of crucial production inputs and commenced analysing critical distribution routes for our commodities to inform value chain resilience planning.
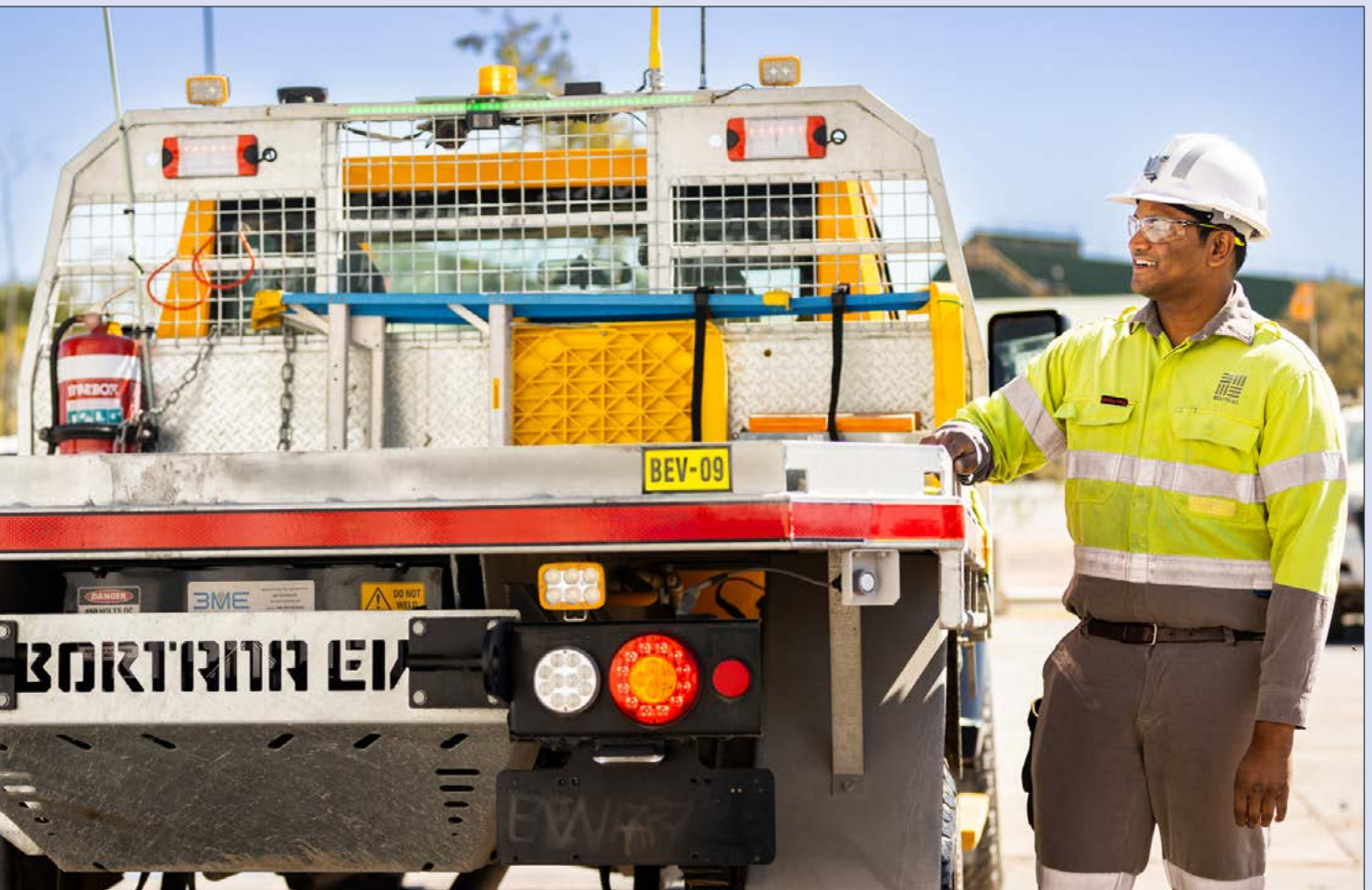
CLIMATE-RELATED RISKS AND OPPORTUNITIES

Climate change poses risks to our people, the resilience of our portfolio and our assets, as well as to the natural environment, communities, infrastructure and markets on which we depend.

These climate-related risks encompass:

– **Transition risks,** which arise from efforts to transition to a low-carbon economy, including social, policy, legal, market, technological and reputational risks; and

– **Physical climate risks,** which are driven or intensified by weather, climate variability or climate change and include acute risks, resulting from changes in the frequency, intensity or location of extreme weather events (e.g., drought or flood events) and chronic risks, resulting from longer-term changes in climate patterns (e.g., sustained higher temperatures, sea level rise).

Our approach to managing physical climate risks, including information on the climate projections used, is outlined on page 74, and findings from our FY22 physical risk assessment can be found in our 2022 CCAP.

Efforts to mitigate and adapt to climate change also produce opportunities, for example, through access to new markets, resource efficiency and cost savings, the adoption of lower-carbon energy sources, and building value chain and community resilience.

In assessing the actual and potential impacts of climate change, including the climate resilience of our strategy and business model and implications for our financial position and performance, climate-related issues are generally considered across the following time horizons:

– Short-term (up to two years), aligning with our two-year budget process and considering that mine/production plans are developed for a 24-month period to support budget development;

– Medium-term (two to at least five years), helping to define actions and initiatives that sit outside of our two-year budget process to support the implementation of our strategy and the delivery of long-term value for our operations, including our decarbonisation pathway to support the achievement of our 2035 target (two to ten years); and

– Long-term (at least five years and beyond), considering that our long-term supply, demand and pricing forecasts extend to 2040, scenarios for portfolio analysis and decarbonisation pathway to support our net zero goal extend to 2050, and life of operation plans cover the duration of operations, as well as closure and post-closure activities where applicable.

Assessing potential climate change impacts over these time horizons supports the integration of climate-related risks and opportunities into our business, life of operation, financial and strategic planning and decision-making processes. Performance requirements for managing climate-related risks and opportunities are also defined in our internal planning and social performance standards.

Climate scenario analysis

We complement our risk management approach with scenario analysis to assess the potential impacts of climate change on our business and identify risks and opportunities. While climate scenarios are hypothetical and not intended to represent a full and definite description of the future, they highlight key factors that could drive future developments.

In FY21 we developed a 1.5°C scenario and assessed the potential impacts on commodity demand to test the resilience of our portfolio under a rapid global energy transition. The scenario was updated in FY23 using a scenario construct primarily based on the International Energy Agency's Net Zero Emissions 2050 scenario which sets out one example of a credible pathway to achieving a 1.5°C outcome by 2050, providing a set of general assumptions on commodity demand drivers, scrap availability, material efficiency and carbon prices.

In FY23, we analysed the relative resilience of our portfolio in our updated 1.5°C scenario against our base case at the time. As described in our Sustainable Development Report 2023 on pages 93 to 95, our FY23 1.5°C scenario assumes a deeper and more rapid transition to a net zero economy by 2050, higher long-term carbon prices, greater material efficiencies, scrap usage and recycling, and faster deployment of renewable power and electric vehicles. It also assumes various material efficiency assumptions which impact total and primary demand for certain commodities.

The analysis indicated (amongst other things):

– A higher price outlook for most commodities (except lead) under the 1.5°C scenario, driven by higher demand (required to incentivise new supply) and higher carbon costs faced by producers;

– That our metallurgical coal business would benefit from modestly higher coal prices but would be uncompetitive in our 1.5°C scenario without a commercial solution for ventilation air methane emissions; and

– Due to their energy intensity, Hillside Aluminium would be uncompetitive in the 1.5°C scenario without an affordable source of low-carbon energy, and Mozal Aluminium and Brazil Aluminium would need to maintain renewable energy supply into the future.

In FY24, we achieved major milestones in the transformation of our portfolio for a low-carbon future - our decisions to develop Hermosa's Taylor zinc-lead-silver deposit and sell our metallurgical coal business and interest in the Eagle Downs metallurgical coal project.

Together these portfolio improvements remove our coal commodity exposure and increase our exposure to base metals. Accordingly, we believe that the resilience of our portfolio under the rapid global transition set out in our FY23 1.5°C scenario has improved, subject to the observations set out above and the assumptions and observations outlined in our Sustainable Development Report 2023 and Sustainability Databook 2023.

We plan to undertake additional scenario analysis and refresh our portfolio resilience assessment in FY25 to help to inform the next iteration of our Climate Change Action Plan.

> **Our base case**
>
> We assess key economic trends, technological drivers and policies to form a view on how they could evolve over the medium- and long-term. This, together with other prevailing market signposts, study findings by established external organisations and internal research, helps to inform our base case.
>
> The base case, which is updated annually, is used as an input for our commodity and carbon price forecasts, operational planning and budgeting, valuation assessments and investment decisions.
>
> As current global signposts continue to point towards a probable trajectory for global warming of at least 2°C, this probable trajectory continues to form part of our base case. The base case assumes that there will be increased commitment to climate action and to priorities that will accelerate the transition towards a lower-carbon economy, raising investments in infrastructure to support the transition and mitigate climate change risks. Other economic assumptions and/or forecasts in our base case include:
>
> – Projected average global GDP growth of around two per cent per annum over the next three decades;
> – The transition to cleaner technologies, such as the electrification of vehicle fleets and more efficient blast furnaces, is expected to accelerate;
> – A growing environmental focus to mitigate climate change risks is expected to drive increased scrap usage and demand for better quality raw materials; and
> – Technological advancement is expected to support overall productivity growth and counterbalance demographic pressures as global population growth slows.

Commodity demand in our base case

In our current base case, the adoption of cleaner technologies is expected to accelerate. A growing environmental focus is also expected to drive increased scrap usage and demand for better quality raw materials. This underpins the long-term demand for our commodities.

Table 10 – Commodity demand outlook

Commodity	Potential to support global decarbonisation	Projected 2032 market outlook under our base case
Aluminium value chain	Alumina is refined from bauxite and is the key raw material used to produce primary aluminium. Aluminium is lightweight, durable, strong, resistant to corrosion, recyclable and it can conduct electricity, meaning it has a wide range of applications including construction, transportation, electrical wiring, packaging and consumer goods such as electronics and household items.	Continues to be characterised by healthy demand growth (approximately three per cent per annum). This is driven by the transport, packaging, electrical and consumer durables sectors, even as the use of recycled aluminium is expected to increase through time. Our analysis, which accounts for recent policy developments, including the European Union Carbon Border Adjustment Mechanism market signposts and feedback from our customers, indicates increased supply and secondary production are able to meet emerging low-carbon aluminium demand in the short- to medium-term, with supply into Europe attracting a modest regional premium or discount depending on emissions intensity.
Copper	Copper is a key metal used in electric vehicles (EVs) and charging infrastructure. It is an effective conductor of electricity, so as the world moves towards electrification, copper is expected to be increasingly used in power related infrastructure, including renewable energy.	Continues to be characterised by healthy total demand growth (approximately three per cent per annum). This is driven by the transport (including rising EV penetration), power infrastructure and consumer durables sectors, as a key commodity in the renewable energy transition.
Nickel	Nickel has an important role to play as the world transitions to a low-carbon future as it is used in alloys in wind and solar power infrastructure. Nickel-rich batteries are also critical for the rapid adoption of EVs.	Continues to be characterised by healthy primary demand growth (approximately five per cent per annum) driven by continued demand growth from the stainless-steel segment and increasing nickel demand for batteries due to rising EV penetration.
Silver-lead-zinc[11]	Silver is used in solar panels due to its superior electrical conductivity, and lead has potential to be used in renewable energy storage systems. Zinc protects metals against corrosion and will play a key role in renewable energy infrastructure development as a protective coating for wind turbines and solar panels.	Healthy total demand growth for zinc (approximately two per cent per annum), underpinned by construction, transport, consumer goods and infrastructure sectors. Lead is characterised by modest total demand growth (approximately one per cent per annum) as EV adoption grows, thereby reducing the lead intensity in cars.
Manganese	Manganese is used to improve the quality and strength of steel and also has the potential to displace cobalt in lithium-ion batteries.	Manganese is projected to have modest demand growth out to 2032 (approximately 0.5 per cent per annum). Longer term, the battery sector has the potential to emerge as a leading driver of manganese demand growth.

(11) Silver demand and supply are not specifically modelled under our base case mainly due to silver's popularity as an inflation hedge which can lead to increased speculation and high price volatility. We use Consensus Economics data (_www.consensuseconomics.com_) for our long-term silver price forecasts.

Carbon pricing mechanisms

Governments in an increasing number of jurisdictions have adopted or are considering adopting domestic carbon pricing (through the implementation of carbon taxes and/or GHG emissions trading systems), to support the achievement of nationally determined contributions under the Paris Agreement. Additionally, the application of carbon tariffs on certain carbon-intensive imported products, known as a carbon border adjustment mechanism, is emerging as a policy tool to mitigate carbon leakage and maintain domestic competitiveness in carbon-intensive sectors.

These carbon pricing mechanisms have the potential to increase carbon prices in the countries where we operate and the jurisdictions into which our products are sold. Additionally, they have the potential to impact market access and the competitiveness of our commodities.

EU Carbon Border Adjustment Mechanism

The EU CBAM entered into force in October 2023, and will impose a carbon tariff on imports into the EU of specified energy-intensive goods. 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.

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

For most EU CBAM goods, embedded GHG emissions include direct (Scope 1) and indirect (Scope 2) GHG emissions. Indirect GHG emissions are not currently included in the payable tariff for aluminium but may be included in the future. Taking this and the phase-in nature of the scheme between 2026 and 2034 into account, our analysis suggests that while the EU CBAM presents important challenges, on a portfolio basis, the associated risks are not material in the short- to medium-term.

Those challenges include:

– EU CBAM's method for calculating GHG emissions embedded in EU CBAM goods adopts a different approach to the global and widely accepted GHG Protocol. This may lead to these goods being assessed as more GHG emissions-intensive (and attracting a higher carbon tariff) than they would under the GHG Protocol, which we use to calculate our operational GHG emissions. This also leads to the EU CBAM only recognising renewable energy purchased directly from a generator, meaning that renewable energy purchased through energy attributes and renewable energy certificates cannot be included in the calculation of embedded indirect GHG emissions for EU CBAM goods; and

– It is unclear whether the proportionate allocation of purchased renewable electricity to product quantities will be permitted. If permitted, producers of EU CBAM goods could produce a low GHG emissions product stream in addition to a standard GHG emissions product stream, meeting the objectives of the scheme while not precluding market access.

In our view, these challenges create risk that the low-carbon electricity potentially available to our operations in Southern Africa would not mitigate exposure to higher EU CBAM carbon tariffs in the event that the EU CBAM's scope is extended to indirect GHG emissions for aluminium.

We continue to actively monitor developments of the EU CBAM and political and policy responses to it, as well as the international carbon tariff landscape, so that we are prepared to respond to potential impacts, risks and opportunities for our business.

Australian Safeguard Mechanism

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

This optionality, together with our decarbonisation planning, means that we are well positioned to meet our obligations under the reformed Safeguard Mechanism and contribute to Australia's national GHG emissions reduction target.

South African Carbon Tax

In South Africa, the *Carbon Tax Act (Act No.15/2019)* (Carbon Tax Act) sets a carbon price for Scope 1 GHG emissions, excluding diesel for transportation.

The Carbon Tax Act includes a number of mechanisms which facilities can utilise to reduce their tax liability, including a carbon budget allowance for facilities that have voluntarily participated in the development of a carbon budget with the Department of Forestry, Fisheries and Environment (DFFE). The Act also allows for facilities to reduce their payable carbon tax by retiring carbon credits against a portion of the liability (up to 5 per cent for process emissions and 10 per cent for fuel emissions).

A mandatory carbon budgeting regime is expected to be implemented in 2025, whereby an additional levy will be required to be paid for Scope 1 GHG emissions that exceed a facility's carbon budget and the carbon budget allowance will cease.

Hillside Aluminium and South Africa Manganese have voluntary carbon budgets for the five-year calendar period 2021 – 2025, with Scope 1 GHG emissions for Hillside Aluminium being below budget for years 2021 to 2023.

Until the mechanism for setting mandatory carbon budgets is known, the implications of the mandatory regime for these operations are uncertain. We continue to closely monitor policy developments and engage with policy makers, including the DFFE, through industry associations.

Carbon offsets and carbon credits

Our operations may purchase and surrender or retire certain carbon credits to meet obligations under GHG emission limiting regulations. Carbon credits retired for these purposes have not been used as eligible carbon offsets to reduce our reported operational GHG emissions. Accordingly, our reported operational GHG emissions (Scopes 1 and 2) do not include the 31,228 ACCUs retired for compliance with the Safeguard Mechanism for the period 2022-23 nor the 100,000 carbon credits voluntarily retired under South Africa's Carbon Tax Act for the period 2023 and 2024.

We aim to procure carbon credits from jurisdictions in which we operate that are produced in a way that aligns with our sustainability approach and internal quality criteria. In Australia, we use Australian Carbon Credit Units and Safeguard Mechanism Credits to meet Safeguard Mechanism requirements. In South Africa, carbon credit procurement is limited to carbon credits verified under the Verra and Gold Standard schemes for use towards carbon tax liabilities.

Our approach to decarbonisation applies the mitigation hierarchy. This means that we seek to prioritise avoidance and mitigation over the use of carbon offsets. However, we expect that carbon offsets are likely to be required for residual hard-to-abate operational GHG emissions for which there are limited or no affordable technological solutions to achieve our 2050 net zero goal.

We intend to review our approach to carbon credits and carbon offsets in FY25.

+ Data on facility-level carbon pricing baselines and carbon credits retired in FY24 for regulatory purposes is available in our Sustainability Databook 2024 at *www.south32.net*.

Our carbon pricing

We apply carbon pricing in carrying value assessments, the formation of commodity price protocols, decarbonisation investment decisions and the procurement of carbon offsets and carbon credits.

Our base case applies domestic carbon prices in our key operating regions until FY39, based on existing regulations, inclusive of where we operate, and an expectation that GHG emissions allowances will reduce over time.

Our base case assumes a single global carbon price from FY40 of US$67 per tonne CO_2-e[12], based on an assessment of policy driven costs, market price benchmarks, technological innovation, and the cost of abatement. This assessment also considers inputs such as the International Energy Agency's (IEA's) estimated future carbon prices, global institution estimates, spot prices in major emitting countries and regulatory changes such as the EU CBAM.

Higher carbon prices are likely to be required to accelerate global decarbonisation. Reflecting this, we adopt in our 1.5°C scenario the carbon price trajectory provided in the IEA (2022) Net Zero Emissions (NZE) scenario: US$250 per tonne for advanced economies with net zero GHG emissions pledges; US$200 per tonne for emerging markets and developing economies with net zero GHG emissions pledges; and, US$180 per tonne for other developing economies in 2050.

A materially higher carbon price than those used in our scenario analysis would cause us to re-evaluate the viability of new projects (and potentially not to proceed with certain projects), as well as look at ways to further reduce costs of existing operations under accelerated transition scenarios.

We assess and update our carbon price forecasts in response to changes in policy, technology and price benchmarks. For example, we have updated our base case carbon price in FY24 for our Australian operations to A$41 per tonne in accordance with the supply and demand forecast in the Australian Carbon Credit Unit market.

Impact on strategy, business and capital allocation

Our approach to addressing climate-related risks and opportunities is integrated with our strategy and is a key consideration in our strategic, business and financial planning decision-making and processes. This is demonstrated in the way we are:

– Reshaping our portfolio and allocating capital towards commodities that will support the global transition to a low-carbon economy;

– Directing capital and operational expenditure towards decarbonisation initiatives with the aim to reduce operational GHG emissions;

– Identifying, assessing and responding to risk exposure and vulnerabilities to physical climate change impacts across our operations;

– Seeking to collaborate with key customers and suppliers to address value chain GHG emissions; and

– Applying low-carbon design principles for projects at new and existing operations and co-contributing to research and development partnerships for innovative climate solutions.

In making investment decisions, we consider (among other things) economic returns and the protection of portfolio value, as well as incorporating our carbon pricing assumptions and an assessment of transition risk.

+ Learn more about our climate change related estimates, assumptions, and judgments in Note 2(c) the financial statements in our Annual Report 2024 at *www.south32.net*.

South Africa passes new climate law

In July 2024, the *Climate Change Act, 2024* was signed into law, establishing a South African legal framework for the regulation of the impacts of climate change.

A key feature of the legislation is the regulation of GHG emitting sectors, with the Act requiring (amongst other things):

– Publication of the GHG emitting sectors and sub-sectors that will be subject to sectoral emissions targets, within one year of the Act coming into effect;

– The setting of sectoral emissions targets for sectors and sub-sectors; and

– The allocation of a carbon budget (for a duration of at least three successive five-year periods) to individuals/entities that conduct certain activities. These budgets set the maximum GHG emissions allowed over defined periods and require in scope entities/individuals to implement GHG mitigation plans to stay within their allocated budget.
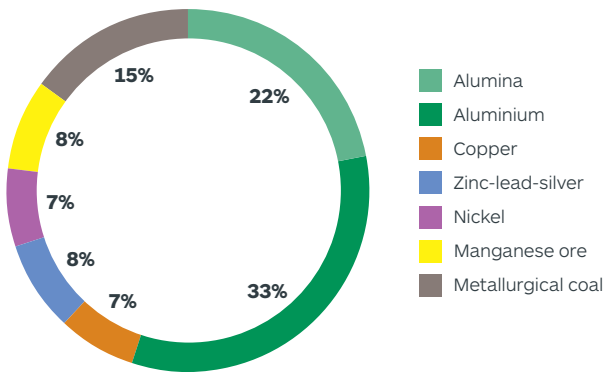
The Act will come into operation on a date fixed by the President by proclamation in the Government Gazette, and further information from the DFFE on implementation milestones is awaited. We continue to monitor these regulatory developments closely to understand potential impacts to our business and inform our business planning and decision-making.

---

(12) Our base case carbon price is indexed to inflation (real January 2024), adjusted and assessed annually and applied to all our operational GHG emissions, regardless of the source or geographic location of their production.

RESHAPING OUR PORTFOLIO

Our commodity mix today is very different from that of 2015 when South32 was first established. We have exited, or ceased production at, a number of carbon intensive and lower returning businesses, and increased our exposure to commodities critical for a low-carbon world through our acquisition of a 45 per cent interest in the Sierra Gorda copper mine and increasing our low-carbon aluminium production capacity[13].

FY24 production by commodity (CuEq)

- 22% Alumina
- 33% Aluminium
- 7% Copper
- 8% Zinc-lead-silver
- 7% Nickel
- 8% Manganese ore
- 15% Metallurgical coal

FY24 progress

In FY24, we entered into binding agreements for the sale of Illawarra Metallurgical Coal[14] (IMC) and our interest in Eagle Downs Metallurgical Coal project[15], achieving a key strategic milestone in our portfolio transformation. In addition to further streamlining our portfolio towards commodities critical for the global energy transition and reducing our exposure to hard-to-abate Scope 3 GHG emissions from the steel making value chain, the IMC sale will strengthen our balance sheet, unlocking significant capital to invest in growing our base metals volumes.

Another key strategic milestone in our portfolio transformation was our decision in FY24 to develop the Taylor zinc-lead-silver deposit at Hermosa[16]. With construction underway and first production expected in FY27, Taylor has the potential to achieve annual average production at levels which would position it as a global top ten zinc producer[17]. Its infrastructure (including dewatering, power, roads and site facilities) also has the potential to unlock value for future growth options in battery-grade manganese and copper.

Taylor is being developed with the aim of minimising environmental impact, featuring a limited surface footprint underground mine[18] with efficient water use and dry stack tailings storage facilities. We have applied next generation mine design principles, utilising automation and technology to drive efficiencies and lower operational GHG emissions. These design features, combined with potential access to renewable energy from local providers, are expected to position Taylor as a low-carbon operation[19].

At Hermosa's Clark deposit, we are progressing studies to supply battery-grade manganese into the evolving North American electric vehicle market. We have commenced constructing an exploration decline which will provide access to ore for demonstration scale production, while we continue to engage with potential customers to assist our market development activities.

Beyond Taylor and Clark, exploration drilling at our Peake deposit returned high-grade copper results in FY24. Test work on samples has indicated the potential to produce copper, zinc and lead concentrate, with further exploration and study work to understand and advance this opportunity underway.

+ **Learn more about how we are managing Hermosa's environmental impact on page 42.**

About Hermosa

The Hermosa project is our wholly owned development located in Arizona, United States (US). It comprises the Taylor zinc-lead-silver deposit, the battery-grade manganese Clark deposit and an extensive land package with more than 15 identified copper and other base metals targets, including the Peake deposit and Flux prospect.

The commodities that Hermosa can produce are expected to support global decarbonisation. Used in renewable energy battery storage, wind turbines and electric vehicles, the US Government designated zinc a critical mineral in 2021 – citing its importance for national security and economic growth. In 2022, the *Defense Production Act of 1950* (DPA) was invoked by President Biden to secure reliable supply chains for five designed strategic and critical minerals required for the production of large batteries, including manganese.

Hermosa is currently the only advanced project in the US which could supply two federally designated critical minerals, zinc and manganese, and was the first mining project added to the US Government's FAST-41 permitting process.

In FY24, Hermosa was awarded a US$20 million grant from the US Department of Defense under the DPA battery grant program. Awarded with the aim to help accelerate the domestic production of battery-grade manganese, we will supplement the grant with a US$43 million investment to fund activities to support access to the manganese deposit.

---

(13) Acquisition of a 45 per cent interest in the Sierra Gorda copper mine completed on 23 February 2022, acquisition of an additional 16.6 per cent shareholding and related rights in Mozal Aluminium completed on 31 May 2022 and decision to participate and invest in a restart of the Alumar aluminium smelter announced on 6 January 2022.
(14) The agreement became unconditional on 29 July 2024 and is expected to complete on 29 August 2024. Refer to market release 'Sale of Illawarra Metallurgical Coal' dated 29 February 2024. Learn more about how we will adjust our FY21 GHG emissions baseline to reflect this change on page 62.
(15) Refer to media release "Agreement to divest interest in Eagle Downs" dated 12 February 2024. The transaction completed on 12 August 2024.
(16) Market release titled 'Final investment approval to develop Hermosa's Taylor deposit' dated 15 February 2024.
(17) Based on Wood Mackenzie Asset Profiles for Individual Mines (Q3 2023 dataset), South32 long-term price assumptions for zinc (US$3,207/t), lead (US$2,069/t) and silver (US$20.2/oz), and Consensus Economics price assumptions for other commodities.
(18) The selection of an underground mining technique has resulted in a surface footprint for the Hermosa project of 750 acres (303.514 hectares) which is substantially less than other mining techniques such as open cut which can span thousands of hectares.
(19) Our studies ascertained that if 40 per cent of Taylor's electricity is sourced from low-carbon energy sources and a location-based emissions factor is applied to the remaining 60 per cent, the estimated 2030 operational GHG emissions intensity per tonne zinc equivalent product for Taylor places it in the first quartile of the SKARN Associates 2023 zinc equivalent emissions curve. We are working to achieve or exceed this level of renewable penetration.

Reshaping our portfolio continued

Exploring for copper in Argentina's San Juan province

Since 2019, we have invested in greenfield exploration partnerships in Argentina's San Juan province, which hosts several copper deposits along a highly prospective mineral belt.

In FY24, we completed the acquisition of a 50.1 per cent interest in the Chita Valley copper exploration project following a multi-year exploration program with Minsud Resources which holds 49.9 per cent. The project holds a significant polymetallic mineral inventory, with infill drilling and resource estimation underway.

Aldebaran Resources holds a controlling interest in the Altar copper development project and in September 2023 we increased our equity interest to 14.8 per cent. We also hold an option to acquire a 65 per cent interest in the Sable Resources Ltd, Don Julio project, where field programs completed in FY24 identified new copper target areas for future drill testing.

Commodities for a low-carbon future

We are actively reshaping our portfolio and investing in opportunities that increase our exposure to commodities that are critical for the global energy transition.

> **+**   **Learn more about the potential of our commodities to support global decarbonisation on page 56.**

The table below outlines production, revenue and capital expenditure for our commodities in FY24. Following the sale of IMC, our commodities are 'transition materials' as defined in the Climate Action 100+ Net Zero Standard for Diversified Mining[20].

We recognise that methodologies for identifying commodities that are critical for the transition to a low-carbon world and the classification of revenues associated with their production continues to evolve. We also acknowledge the importance for transition materials production to occur in a way that contributes value to society and minimises environmental impacts.

Table 11 – Portfolio

Commodity	Copper equivalent production		Underlying revenue	Capital expenditure		GHG emissions intensity (Scopes 1 and 2)	
	kt	%	US$M	US$M	%	Mt CO_2-e	t CO_2-e/t CuEq product
Alumina							
Worsley Alumina (86% share)	**160**	**16%**	**1,356**	**106**	**11%**	**3.2**	**17.2**
Brazil Alumina (36% share, non-operated)	**57**	**6%**	**484**	**80**	**8%**	**NA**	**NA**
Total	**217**	**22%**	**1,840**	**186**	**19%**		
Aluminium							
Brazil Aluminium (40% share, non-operated)	**29**	**3%**	**242**	**8**	**1%**	**NA**	**NA**
Hillside Aluminium (100% share)	**202**	**21%**	**1,720**	**40**	**4%**	**11.7**	**57.7**
Mozal Aluminium (63.7% share)	**92**	**9%**	**812**	**23**	**2%**	**1.6**	**11.4**
Total	**323**	**33%**	**2,774**	**71**	**7%**		
Copper							
Sierra Gorda (45% share, non-operated)	**74**	**7%**	**647**	**207**	**21%**	**NA**	**NA**
Zinc-lead-silver							
Cannington (100% share)	**79**	**8%**	**631**	**38**	**4%**	**0.1**	**1.6**
Nickel (Ferronickel)							
Cerro Matoso[21] (99.9% share)	**65**	**7%**	**556**	**34**	**3%**	**0.8**	**12.5**
Manganese							
Australia Manganese (60% share)	**44**	**4%**	**436**	**65**	**7%**	**0.2**	**2.4**
South Africa Manganese (54.6% ore share)	**35**	**4%**	**343**	**43**	**4%**	**0.2**	**3.2**
Total	**79**	**8%**	**779**	**108**	**11%**		
Metallurgical coal							
Illawarra Metallurgical Coal (100% share)	**147**	**15%**	**1,461**	**340**	**35%**	**2.5**	**16.9**

NA: Non-operated facility, data is not currently available. We are working with our non-operated joint ventures to collate this data, with the aim to make it available from FY25.
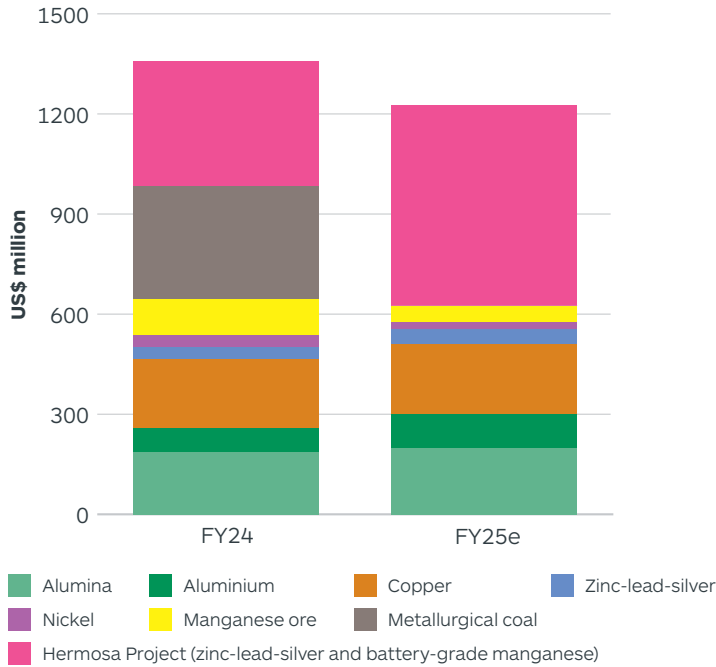
(20) Excludes gold which is produced as a by-product of copper concentrate produced at the Sierra Gorda copper mine.
(21) We are undertaking a strategic review of Cerro Matoso to evaluate the operation's competitive position in light of structural changes to the nickel market and expect to provide information on the outcome of this review in H2 FY25.

Allocating capital towards 'transition materials'

Our capital management framework is designed to support investment in our business and deliver returns to shareholders as our financial performance improves. It is used to consider all investments and strategic decisions, including those designed to support our climate change commitments.

FY24 and FY25e capital expenditure[22]

Legend:
- Alumina
- Aluminium
- Copper
- Zinc-lead-silver
- Nickel
- Manganese ore
- Metallurgical coal
- Hermosa Project (zinc-lead-silver and battery-grade manganese)

Our capital expenditure in FY24 included:

– Growth expenditure for critical path infrastructure and advanced studies for Hermosa's Taylor zinc-lead-silver deposit and Clark battery-grade manganese deposit;

– Productivity and improvement projects and studies at Sierra Gorda copper mine, including for the planned fourth grinding line expansion which, if approved, has the potential to deliver an increase in production volumes of approximately 18 per cent[23];

– Decarbonisation projects at Hillside Aluminium and Worsley Alumina, and the de-bottlenecking phase two project at Brazil Alumina which is focused on delivering additional production through process and capacity upgrades; and

– Construction at the Eastern Lease South life extension project at Australia Manganese and work to access new mining areas and improve rail efficiencies at South Africa Manganese.

In addition to unlocking value, the sale of IMC will lower our capital intensity[24]. In FY25, following the sale of IMC, we will direct capital wholly towards 'transition materials' as we continue to unlock value from our aluminium value chain and manganese businesses, while investing to grow production volumes in base metals.

+ **Learn more about our FY25 capital expenditure guidance on page 53 of our Annual Report 2024.**

Greenfield exploration

We continue to invest in greenfield exploration to discover deposits to underpin our next generation of base metals mines. We directed US$27 million towards greenfield exploration opportunities in FY24 and expect to invest US$30 million in these opportunities in FY25 as we progress programs targeting base metals in the Americas, Australia, Africa and Europe.

Decarbonisation expenditure

We invest capital expenditure in decarbonisation initiatives to improve energy efficiency and reduce GHG emissions intensity at our operations. Decarbonisation capital expenditure is included as a specific investment category in our internal investment standard and is monitored by management through regular reports on actual and forecast expenditure.

Our capital expenditure on decarbonisation projects and studies increased from US$6 million in FY22 to US$30 million and US$31 million in FY23 and FY24, respectively. Most of this decarbonisation expenditure related to the coal to gas boiler conversion at Worsley Almunia, implementation of AP3XLE at Hillside Aluminium, and decarbonisation initiatives at IMC. Our forecast FY25 expenditure is US$10 million[25], mostly for continued AP3XLE deployment and the progression of decarbonisation projects and studies at Worsley Alumina.

We also incur operational expenditure in the form of dedicated teams who work to mature and expand our pipeline of decarbonisation initiatives. Over time, our decarbonisation expenditure is likely to require a greater proportion of operational expenditure to address our most material GHG emissions sources. On-balance-sheet development of renewables, firming and associated infrastructure to meet the multiple gigawatts of reliable energy supply needed by our aluminium smelters and Worsley Alumina is outside of our strategy and core capability. Our focus therefore remains on the procurement of stable and affordable low-carbon electricity supply for these operations through partnering with government-owned electricity utilities and independent power producers.

(22) Data represented in this graph excludes FY25e capital expenditure for Illawarra Metallurgical Coal considering the sale in progress which is expected to complete on 29 August 2024, US$125 million at Australia Manganese mostly associated with Tropical Cyclone Megan recovery efforts, and capital expenditure for exploration and intangibles.

(23) Based on an approximate 18 per cent increase in Sierra Gorda's FY23 production volumes.

(24) IMC comprised approximately 35 per cent of Group capital expenditure based on total capital expenditure (including equity accounted investments) for the period FY16 to H1 FY24. Excludes South Africa Energy Coal, growth capital expenditure, intangibles, and capitalised exploration.

(25) Our Sustainable Development Report 2023 reported forecast FY25 decarbonisation expenditure of US$90 million. The revised figure of US$10 million reflects the return of Worsley Alumina's mud washing project to pre-feasibility study phase and that the waste heat to digestion project will not be prioritised at this stage.

DECARBONISING OUR OPERATIONS

We have set a target to halve our operational GHG emissions (Scope 1 and Scope 2) by 2035 from our FY21 baseline of 20.7 Mt CO2-e[26]. This target signals our focus on achieving a step-change reduction in operational GHG emissions by 2035; however, we do not expect our emissions to reduce in a gradual or linear trajectory towards our 2035 target, and in some years they may increase.

We have also set a long-term goal to achieve net zero GHG emissions across all scopes (i.e. Scope 1, 2 and 3) by 2050. The goal signals our ambition to achieve a significant reduction in both our operational GHG emissions (Scope 1 and Scope 2) and our value chain GHG emissions (Scope 3) by 2050.

FY24 operational GHG emissions

Our FY24 reported operational GHG emissions of 20.3 Mt CO_2-e decreased six per cent from FY23 levels and two per cent from our FY21 baseline.

Scope 1 GHG emissions decreased nine per cent in FY24 (0.9 Mt CO_2-e) largely due to decreased GHG emissions at Worsley Alumina following the coal to gas conversion of two boilers (0.3 Mt CO_2-e) and lower fugitive emissions from IMC associated with longwall moves (0.7 Mt CO_2-e).

Scope 2 GHG emissions decreased four per cent in FY24 (0.5 Mt CO_2-e). The primary driver was a decrease in the Eskom grid emission factor[27] for our South African operations, with Hillside Aluminium's Scope 2 GHG emissions decreasing by 0.4 Mt CO_2-e.

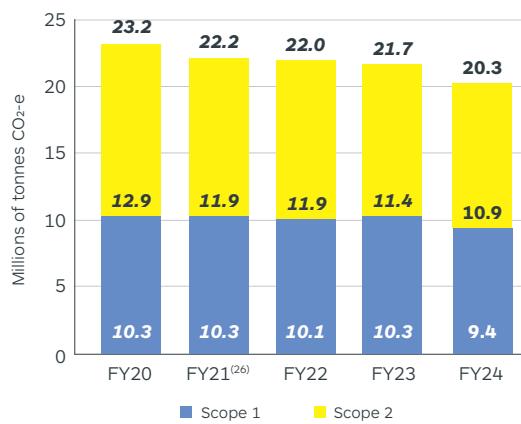The largest sources of our operational GHG emissions in FY24 were:

– Consumption of coal-generated electricity purchased from Eskom at Hillside Aluminium;

– Combustion of energy coal and natural gas to generate steam and electricity at Worsley Alumina; and

– Fugitive emissions at IMC.
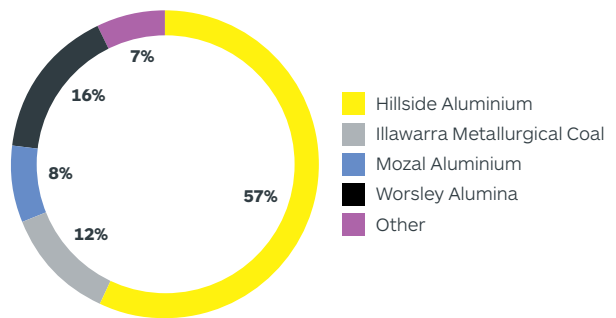
IMC's GHG emissions reporting methodology
In FY24, IMC transitioned its reporting methodology from Continuous Emissions Monitoring to Periodic Emissions Monitoring. The updated methodology was used for FY23 GHG emissions reporting to the Clean Energy Regulator. Updated historical GHG emissions for IMC have been disclosed in this report and the Sustainability Databook 2024.

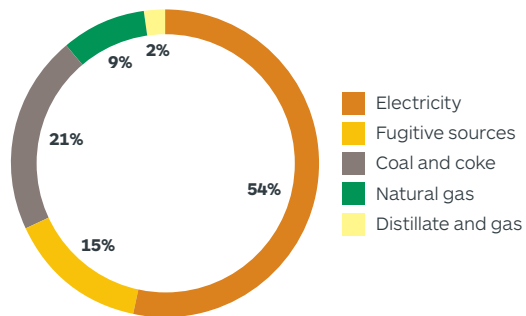**+** **Learn more about GHG emissions reporting methodologies in our Sustainability Databook 2024 at www.south32.net.**

FY24 Scope 1 and 2 GHG emissions[28]

FY24 Scope 1 and 2 GHG emissions by operation

- Hillside Aluminium — 57%
- Illawarra Metallurgical Coal — 12%
- Mozal Aluminium — 8%
- Worsley Alumina — 16%
- Other — 7%

FY24 Scope 1 and 2 GHG emissions by source[29]

- Electricity — 54%
- Fugitive sources — 15%
- Coal and coke — 21%
- Natural gas — 9%
- Distillate and gas — 2%

Reducing our operational GHG emissions

Our operational decarbonisation pathway to support the achievement of our 2035 target[30] and 2050 net zero goal consists of short-, medium- and long-term initiatives focused on improving energy efficiency, transitioning to low-carbon energy, and developing technology solutions.

Our decarbonisation approach applies the mitigation hierarchy, meaning that we seek to prioritise avoidance and mitigation over the use of carbon offsets. However, we expect that carbon offsets are likely to be required for residual hard-to-abate operational GHG emissions for which there are limited or no affordable technological solutions to achieve our 2050 net zero goal.

Following completion of the sale of IMC, we will adjust the FY21 baseline for our 2035 target to remove IMC GHG emissions in accordance with the GHG Protocol. The updated FY21 baseline for our GHG emissions target will be 18.2 Mt CO_2-e.

Eighty-one per cent of our FY24 operational GHG emissions were generated in our aluminium value chain. We continue to focus on decarbonisation programs and initiatives at these operations.

Operational decarbonisation approach for our highest emitting operations[31]

Operation	Short-term	Medium-term 50% by 2035[32]	Long-term Net zero by 2050[33]
Hillside Aluminium	> AP3XLE implementation	> Transition to low-carbon energy	> Processing technologies (e.g. inert anodes)
Mozal Aluminium	> Extension of current hydropower contract beyond FY26		> Processing technologies (e.g. inert anodes)
Worsley Alumina	> Coal to gas conversion > Reducing steam demand (e.g. dilution reduction)	> Coal to gas conversion > Steam electrification and renewables > Use of industrial heat (e.g. waste heat to digestion) > Processing technologies (e.g. mechanical vapour recompression)	> Gas to renewables or green hydrogen > Processing technologies (e.g. electric calcination)

Efficiency projects | Transitional fuel | Low-carbon energy | Technology

Worsley Alumina

Worsley Alumina (Worsley) is an integrated bauxite mine and alumina refinery located in the south-west of Western Australia. The alumina we produce is shipped to aluminium smelters around the world, including our aluminium smelters.

Alumina refining is energy intensive, largely due to digestion and evaporation processes where bauxite is mixed with caustic soda (or sodium hydroxide) and then heated under pressure to dissolve alumina minerals. In order to meet this heat demand, boilers are used to produce steam. Compared to bauxite mining and aluminium smelting, the emissions abatement pathway for alumina refining has more uncertainty as it will depend on the development of commercial technologies and process infrastructure to alter the way that refineries like Worsley Alumina consume energy.

Approximately 67 per cent of Worsley's FY24 operational GHG emissions were from the combustion of energy coal and natural gas to generate high-pressure steam and electricity. Historically, the combustion of coal and natural gas to generate steam involved three coal-fired boilers and a multi-fuel co-generation (MFC) facility with two boilers that consume mostly coal, as well as biomass and diesel.

GHG emissions from bauxite mining comprised approximately two per cent of Worsley's FY24 reported operational GHG emissions, while Scope 2 GHG emissions comprised approximately one per cent.

(30) Our 2035 target is a medium-term target per the Climate Action 100+ Net Zero Company Benchmark Disclosure Framework Assessment Methodology V2.0 – 2023 which classifies a medium-term target as a target for reducing GHG emissions with a target year between 2027 and 2035.
(31) Excludes IMC on the basis this graphic is forward looking and assumes that the sale of IMC is completed on 29 August 2024.
(32) Our target to halve operational GHG emissions from our FY21 baseline by 2035. Medium-term target per the CA100+ Net Zero Company Benchmark Disclosure Framework Assessment Methodology V2.0 - 2023.
(33) While our goal of net zero GHG emissions by 2050 includes Scopes 1, 2 and 3, this graphic relates to operational GHG emissions (Scope 1 and 2).

Fuel switching as an interim step

As an interim step to achieve earlier GHG emissions reduction, as well as mitigate coal supply risk, we have converted two of the refinery's five boilers to natural gas. These two conversions have the potential to reduce the refinery's annual coal consumption by up to 33 per cent (compared to FY21 levels), and in FY24, contributed to a 14 per cent (0.5Mt CO_2-e) reduction in operational GHG emissions against FY21 levels[34]. Study work is ongoing for conversion of the remaining boilers, with timing subject to considerations around domestic coal and gas supply, as well as just transition planning for the town of Collie and surrounding areas.

Worsley Alumina's operational GHG emissions by source.
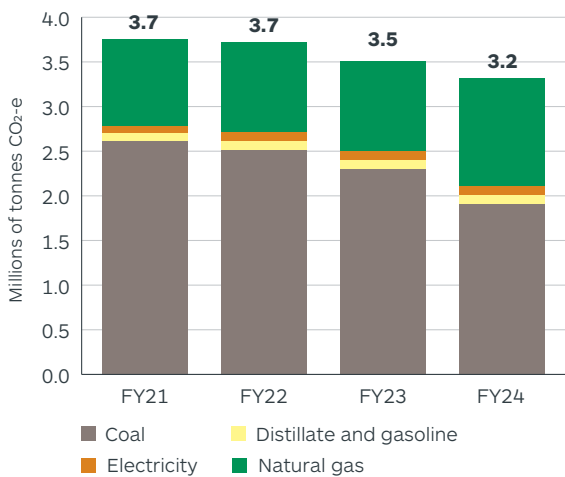
We continue to use biomass as a fuel source in the MFC facility, consuming approximately 14,633 bone dry metric tonnes in FY24. The use of biomass in place of energy coal is estimated to have abated just over 26,500 tonnes of CO_2-e in FY24. Our biomass is sourced from various harvesting and chipping companies, including waste residues from saw log operations, mine site thinnings or energy crop material. Sourcing and processing higher volumes of biomass has safety and supply chain challenges and therefore remains a complementary option in the short-term while we pursue other energy transition projects.

Long-term electrification

A concept study completed in FY23 to evaluate alternative options for steam generation reinforced our view that the end state for the refinery's long-term decarbonisation is likely to be a high or full electrification. Subsequently, we commenced a steam electrification pre-feasibility study which we expect to be completed in 2025.

Full electrification of the refinery would place a new load on the South-West Interconnected System of around one third of current total system average demand, which current network capacity cannot meet. Additionally, a large-scale deployment of renewable energy that does not generate steam directly would require a change to Worsley Alumina's process and energy infrastructure. Increased electrification and renewable energy solutions will require investment in energy infrastructure at the refinery, and potentially shared energy infrastructure in the region.

Government and industry collaboration is essential for the electrification and decarbonisation of the south-west region. In FY24, we continued to engage with stakeholders, including the Western Australia Government, Western Power Corporation (the state-owned corporation that operates the electricity network)

and private corporations on potential options for increasing transmission capacity to the refinery.

We continue to monitor the technical potential and feasibility for behind-the-meter renewable electricity generation. However, procuring renewable energy via the grid remains the most financially viable option for the refinery's long-term decarbonisation. We are progressing projects and studies that investigate technologies to support increased electrification, as well as potential opportunities for co-investment in shared energy infrastructure to supply affordable renewable power at the necessary scale for Worsley Alumina and other industrial users in the region.

Energy and process efficiency initiatives

Each year, Worsley Alumina conducts an exercise to identify and prioritise decarbonisation projects for further study work. Energy and process efficiency initiatives at the refinery are currently primarily targeting opportunities to reduce steam demand and improve efficiency through more effective use of industrial heat.

Several decarbonisation studies progressed to business-case decision milestones during FY24:

- Coal alternative steam study, which is assessing options for steam generation other than coal, progressed into pre-feasibility. We estimate that the project has the potential to reduce GHG emissions by up to 500,000 tonnes of CO_2-e per annum. Engineering studies for the preferred options are being progressed to evaluate technological risk and capital expenditure requirements, with a decision on the tollgate to feasibility study expected in FY26;

- Product washing dilution reduction project progressed to execution. The project aims to reduce the amount of water used in product washing, thereby reducing the steam needed to evaporate that water later in the refining process. We estimate that the project has the potential to reduce GHG emissions by up to 70,000 tonnes of CO_2-e per annum[35] and is expected to be completed in early 2025;

- Mechanical vapour recompression concept study on the use of compressors to turn waste vapour into steam, which identified that this technology, together with electric boilers, should be incorporated into the wider steam electrification study;

- Waste heat to digestion pre-feasibility study looked at two options to recover waste heat for reuse in the digestion process. The study concluded that the project should not be prioritised at this stage due to materiality and capital intensity of the expected abatement compared to other projects in the pipeline;

- Mud washing study on replacing flat bottom washers with new high efficiency washers, which has been returned to pre-feasibility study stage due the capital intensity of the expected abatement compared to other potential projects. Alternative flow sheets and optimisation opportunities will be evaluated, and the project will continue to be assessed against other energy efficiency and decarbonisation opportunities; and

- Calciner flue gas heat recovery concept study on technology that reuses waste heat from the calciner to produce steam, which found high technical risk and therefore will be deprioritised relative to studies on other waste heat sources.

In FY24, we also commenced a thermal energy storage concept study on the use of electricity from the grid in periods of high renewable energy supply to heat thermal mass for later use in steam production, which will be completed in FY25.

(34) Going forward, we expect the two boiler conversions to reduce Worsley Alumina's operational GHG emissions by around 10 per cent against FY21 levels. The higher GHG reduction in FY24 of (0.5Mt CO_2-e) is partially attributable to the shutdown of the boilers during the year for execution of the conversions.
(35) The product washing dilution reduction project can either be optimised to achieve reductions in caustic soda consumption or GHG emissions, both of which cannot be fully achieved simultaneously. Therefore, project has the potential to reduce GHG emissions by 0 - 70,000 tonnes of CO_2-e per annum depending on operational decision outcomes.

Our aluminium smelters

Our Hillside Aluminium (Hillside) smelter in South Africa is the largest primary aluminium smelter in the southern hemisphere and is 100 per cent owned and operated by South32. Mozal Aluminium (Mozal) in Mozambique is the second largest smelter in Africa. It is South32 operated and co-owned with the Industrial Development Corporation of South Africa and the Government of the Republic of Mozambique.

+ **Learn more about how Hillside and Mozal contribute to their local economies on page 67.**

Hillside Aluminium

Eighty-eight per cent of Hillside's operational GHG emissions are Scope 2 emissions from the use of electricity. Electricity supplied to Hillside is sourced from Eskom, the state-owned entity which owns and operates the South African national electricity grid, under a long-term power agreement that expires in 2031. As the grid is largely reliant on energy coal, Hillside's electricity supply is highly carbon intensive.

Decarbonising Hillside's power supply requires multiple gigawatts of low-carbon energy generation capacity to meet its consistent, high level of power consumption. Converting the electrical grid infrastructure that generates and delivers power to Hillside is outside of our strategy and core capability. Our focus therefore remains on the procurement of stable and affordable low-carbon electricity supply, rather than on-balance-sheet development of renewables, firming and associated infrastructure.

Evaluating options for low-carbon electricity supply

We have a dedicated project team in place to develop, evaluate and progress initiatives focused on the decarbonisation of Hillside's electricity supply, at a pace and scale that is economically viable for the smelter.

In early FY24, we entered a non-binding Memorandum of Understanding (MoU) with Eskom to explore the potential purchase of nuclear energy attributes. The aim was to assess the potential use of these attributes to lower the GHG emissions intensity of Hillside's product. Considering the uncertainty around the EU CBAM's potential extension to embedded indirect (Scope 2) emissions for aluminium, we have agreed with Eskom to terminate the MoU so that Eskom can pursue solutions which it says "could assist customers to confirm that certain electricity purchased from Eskom is low-carbon energy".

In FY24, our project team conducted a formal Request for Information (RFI) process to understand the cost and availability of renewable energy supplied by South African Independent Power Producers (IPPs) to power Hillside. While the RFI process demonstrated the potential for Hillside to procure affordable renewable energy in the short- to medium-term, our studies show that several key risks and uncertainties remain.

South Africa's grid is built primarily around coal-fired power stations located in the north-east of the country. This historical design presents challenges for renewable energy generators in parts of the country seeking to connect to the grid where there is currently limited connection capacity[36]. As many of the projects presented in response to the RFI are seeking to connect to constrained parts of the grid, it is uncertain whether access can be granted to all proposed renewable energy projects without significant public and private investment in the grid's expansion.

Additionally, the variable and intermittent nature of renewable energy means that a large amount of back-up power (known as grid firming) will be required to complement renewable energy sources in order to meet the large and consistent baseload power demand of aluminium smelters. Engagements with Eskom and other stakeholders in FY24 identified that a comprehensive solution is required to establish a blended tariff of renewable energy sources and firming capacity that is economically sustainable for Hillside.

Our priority going forward is engaging with Eskom and the South African Government on a comprehensive low-carbon energy solution for Hillside beyond 2031 which is economically sustainable for the smelter. This will include continuing to engage with Eskom on an affordable firming tariff to support potential renewable procurement from IPPs in the future.

This approach will allow us to understand potential opportunities from Eskom's unbundling[37] and to evaluate other solutions that may emerge from the development of the renewables market in the next five years. In addition, we will continue to investigate the potential role of international finance, economic organisations, electricity market participants, and governments to accelerate the decarbonisation of South Africa's energy supply.

Energy and process efficiency

We continue to progress, investigate and assess the suitability of GHG emissions reduction technologies for Hillside. AP3XLE technology continues to be installed through planned pot relining activity. The technology realises energy efficiency improvements immediately following installation and, once fully deployed, is expected to abate approximately 150,000 to 200,000 tonnes of CO_2-e per annum, which equates to 1.2 to 1.7 per cent of the smelter's operational GHG emissions. Thirty-six per cent of Hillside's pots have been converted to AP3XLE, with full installation on track for completion by FY28.

Additional trials to assess the suitability of Hillside for the application of EnPot technology were completed in FY24. This technology enables aluminium smelters to modulate their energy consumption, making them more compatible with the variable electricity supply provided by renewable electricity generation. The trials concluded that EnPot is not a viable energy efficiency solution for Hillside due to characteristics of the smelter's pot design which limit the efficacy of the technology.

Mozal Aluminium

Electricity supplied to Mozal is generated by a hydro-electric power generator, Hidroeléctrica de Cahora Bassa (HCB) in Mozambique. The hydro-electric power is supplied to Mozal via the Eskom grid, under a supply agreement due to expire in 2026. Eskom also provides back-up energy for periods when HCB produces less than its contractual minimum supply of hydro-electric power.

With less than two years remaining on the current power supply agreement, we have a strong focus on securing hydro-electric power beyond Q3 FY26. There are currently no viable alternative suppliers of renewable energy at the required scale for Mozal. We continue to work closely with the Government of the Republic of Mozambique and Eskom to identify a solution.

Our work in FY24 was focused on supporting a review of Mozal's position undertaken by the Government which is a key piece of work to enable the design of a solution. We have engaged senior stakeholders in Government during the year, which resulted in the formation of a ministerial taskforce to accelerate progress.

---

(36) Learn more about the ambition and investment needed to decarbonise the South African grid on page 82 of our 2022 Climate Change Action Plan, which was published in our Sustainable Development Report 2022, at *www.south32.net*.

(37) Eskom is in the process of being restructured to unbundle the vertically integrated utility into three distinct companies of transmission, distribution, and generation.

Illawarra Metallurgical Coal

IMC's Scope 1 GHG emissions are predominantly from fugitive emissions, including methane. Our decarbonisation initiatives have focused on increasing the efficiency of coal seam gas drainage and utilising as much of the captured gas as possible to generate electricity and reducing ventilation air methane (VAM) through methane abatement technologies.

In FY24 we exceeded our aim to increase equivalent post drainage capture efficiency (PDCE) of coal seam gas at the Appin mine to 67 per cent, compared to 61 per cent in FY21. The higher PDCE level achieved, reduced Appin's Scope 1 FY24 GHG emissions by approximately 200,000 tonnes of CO_2-e against FY21 levels.

Dendrobium mine has lower methane content than Appin and experiences greater variability of gas quantity and composition. Therefore, unlike Appin, captured gas cannot be used for power generation which requires a stable supply of higher methane concentrations.

At Dendrobium, we have installed new gas drainage infrastructure and flaring technology which provides the ability to convert methane to carbon dioxide, reducing the potency of GHG emissions released to the atmosphere. Construction and pre-commissioning of the gas drainage plant was completed in FY24 and is ready for use when mining advances into areas of the mine with higher gas concentrations.

In FY24, we progressed detailed design and execution planning for the VAM mitigation project at Appin, with the preferred technology changing from CSIRO's VAM mitigator to commercially available regenerative thermal oxidisers which oxidise methane in air to produce water and carbon dioxide.

Through Innovate32, our approach to enabling investment and delivery of innovation across South32, we also commenced investigations into catalytic VAM abatement[38] which is a promising class of technology for abating high volumes of mine ventilation air at low VAM concentrations. Learn more about this work on page 71.

Handover of these decarbonisation projects and initiatives was undertaken as part of transition planning activities for the sale of IMC. Study outcomes of the VAM mitigation project and the results of the technoeconomic study into catalytic VAM abatement were transferred, including an industry funding grant for an independent initiative to pursue the development and commercialisation of catalytic VAM abatement technologies.

Just Transition

The concept of a just transition reflects the imperative of managing the social impacts, risks and opportunities of the transition to a low-carbon world. It is an approach to decarbonisation that seeks to centre the interests of those that are most affected by it, including workers, communities, and suppliers of goods and services.

We are committed to supporting a fair and equitable transition that is aligned with the objectives of the Paris Agreement. Our just transition guiding principles were developed in FY22 to help guide and inform our decarbonisation planning and decision making and we continue to progress their integration into our internal standards and processes relating to social and environmental performance.

Our just transition guiding principles

NET ZERO PATHWAY	Alignment of the net zero pathway with just transition principles is critical to support access to clean energy and a safer, more sustainable world for generations to come.
WORKFORCE EVOLUTION	Plans should consider how to equip workers with skills for employment opportunities arising from the transition to a low-carbon economy, promote equitable and decent jobs and shield workers from adverse impacts as far as practicable.
COMMUNITY RESILIENCE	Plans should consider the impacts of the transition on communities through protecting the natural environment and providing support for local development, supply chains and infrastructure.
STAKEHOLDER COMMUNICATION AND COLLABORATION	Plans must be developed in collaboration with all material stakeholders, to co-create solutions that generate maximum value across the value chain.
GOVERNANCE AND TRANSPARENCY	Strong governance and accountability underpin just transition plans. Core outcomes are identified, monitored and reported.

We continue to work with communities, governments and other stakeholders to identify opportunities to complement and support collective just transition-related activities.

In South Africa, we are participating in broad just transition discussions led by the Presidential Climate Commission on what a just transition means to the country's mining sector. We also continue to collaborate with stakeholders through platforms such as the Energy Intensive Users Group of South Africa and community forums.

Worsley Alumina

At Worsley Alumina, we have studied potential workforce impacts from our decarbonisation plans. The study identified the potential for a shortfall of 'electric' workers in the longer-term as a result of increased competition for electrification skills to support the refinery and other large industry participants in the region as the transition to electrification progresses. This work reinforces the need to establish workforce training pathways that align with the refinery's decarbonisation plans, as they develop.

In FY24, we continued to participate in the Collie Just Transition Working Group led by the Western Australia Government Department of the Premier and Cabinet. Discussions during the year included opportunities from future major projects in the region, just transition planning and training opportunities for impacted workers.

(38) Catalytic VAM technology is different to regenerative thermal oxidisers because it uses a catalyst to abate high volumes of mine ventilation air at lower VAM concentrations.

CONTRIBUTING SOCIETAL VALUE AT OUR ALUMINIUM SMELTERS

Consistent with our purpose and just transition guiding principles, we are focused on collaborating with key stakeholders to secure stable and affordable low-carbon energy solutions for Hillside Aluminium and Mozal Aluminium, to support their continued commercial viability and continued contribution to the communities where they are located.

A reduction in output or closure could have significant impacts on workers, communities, local suppliers and domestic producers of aluminium products. Any decisions about the smelters' future operation will necessitate comprehensive planning to consider and manage potential impacts to our people and communities and to create new opportunities where possible.

Hillside Aluminium[39]

Hillside is the only primary aluminium smelter in South Africa. The smelter has played a key role in the domestic aluminium industry for over 20 years as a supplier to local companies that manufacture products for sale domestically and abroad.

Hillside is an important contributor to South Africa's economy[40] and a significant employer in the province of KwaZulu-Natal, where the official unemployment rate is almost 30 per cent[41]:

– Over 2,300 employees and contractors were employed by/at the smelter in FY24;

– Almost 90 per cent of Hillside's employees in FY24 were Black People[42], just under a third were women and 99 per cent were South African citizens;

– The smelter supports a further estimated 27,400 indirect employment opportunities in the economy; and

– US$269 million has been paid in wages and salaries from FY21 to FY24.

Through social investments of more than US$24 million since FY20, Hillside has contributed to a wide range of local community programs and initiatives. This includes US$5 million toward programs aimed at supporting access to education and leadership for students across five municipalities in the local King Cetshwayo District Municipality.

Developing small, medium, and micro enterprises (SMMEs) is fundamental to supporting the ongoing transformation of South Africa's economy. Since FY19, Hillside has invested more than US$41 million in Enterprise and Supplier Development (ESD)[43] to support local economic opportunities for SMMEs, including through job creation, upskilling and training.

This includes US$7.5 million in interest free loans to support the establishment of two semi-fabrication aluminium manufacturing facilities in Richards Bay, with the aim to reduce reliance on imports, increase aluminium beneficiation[44] and create local job opportunities. One facility is a supplier of rim alloys to the automotive sector and the other, expected to be completed in 2026, will manufacture aluminium wire rods which will be needed as South Africa looks to decarbonise its electricity grid.

Another example is the partnership with sustainable energy provider Solana Energy to supply renewable energy to local community organisations and SMMEs and establish an academy to upskill young electricians in solar photovoltaic technology.

Mozal Aluminium[45]

Mozal is the second largest aluminium producer in Africa, after Hillside. The smelter contributes approximately four per cent to Mozambique's annual GDP and is one of the country's highest tax payers[46].

Mozal is a significant industrial employer in Mozambique:

– Over 2,500 employees and contractors were employed by/at the smelter in FY24;

– An estimated additional 21,000 jobs are created through the multiplier impacts on the economy;

– Through a focus on training and skills development, Mozal has increased local hiring over the years and in FY24, 97 per cent of employees were Mozambican; and

– US$91 million paid in wages and salaries from FY21 to FY24.

More than 700 suppliers (locally and regionally) supplied goods and services to Mozal in FY24. The development of small and medium businesses through capacity-building programs has supported local procurement growth, helping to boost local economic development and prepare these businesses to supply other large companies.

Through social investments of more than US$12.5 million since FY19, Mozal has contributed to a wide range of community programs and initiatives, including:

– US$7.2 million to build and refurbish schools, train and upskill teachers and support education and training initiatives for students;

– US$1.6 million towards the AGROMOZAL program which helps farmers in communities to farm more productively, sustainably and competitively, and has created more than 1,468 jobs;

– US$$950,000 in disaster relief funding and to support recovery efforts after widespread flooding from tropical cyclones in FY23 and FY19;

– US$2.7 million towards building and refurbishing healthcare centres, medical clinics and facilities, and programs aimed at eradicating malaria in the region; and

– US$449,000 toward developing small and medium enterprises, creating job opportunities, and contributing to diversification of local economy.

+ **Learn more about Hillside and Mozal's social investments at *www.south32.net/Sustainability/Stories*.**

---

(39) Economic and indirect employment data referenced in this case study is drawn from a third-party assessment of the economic and socioeconomic footprint of Hillside Aluminium undertaken in FY23.
(40) Estimated direct GDP contribution of ZAR9.9 billion in 2022. For every ZAR1.00 increase in local spend by Hillside, it is estimated that ZAR0.36 is added to South Africa's GDP.
(41) As reported in the Quarterly Labour Force Survey by Statistics South Africa for Q1 2024, available at *www.statssa.gov.za*.
(42) Generic term meaning Africans, Coloureds and Indians who are citizens of the Republic of South Africa as defined in the *Broad-Based Black Economic Empowerment Amendment Act, 2013*.
(43) Enterprise and Supplier Development (ESD) consists of two activities, Enterprise Development and Supplier Development. The Enterprise Development component is captured in both the ESD total and the social investment total.
(44) Aluminium beneficiation is the local manufacturing of aluminium into higher value products to benefit the local South African manufacturing sector.
(45) Economic and indirect employment data referenced in this case study is drawn from a third-party assessment of the economic and socioeconomic footprint of Mozal Aluminium undertaken in FY23.
(46) Taxes and other payments to government made by Mozal Aluminium represent an estimated nine per cent of direct tax revenue.
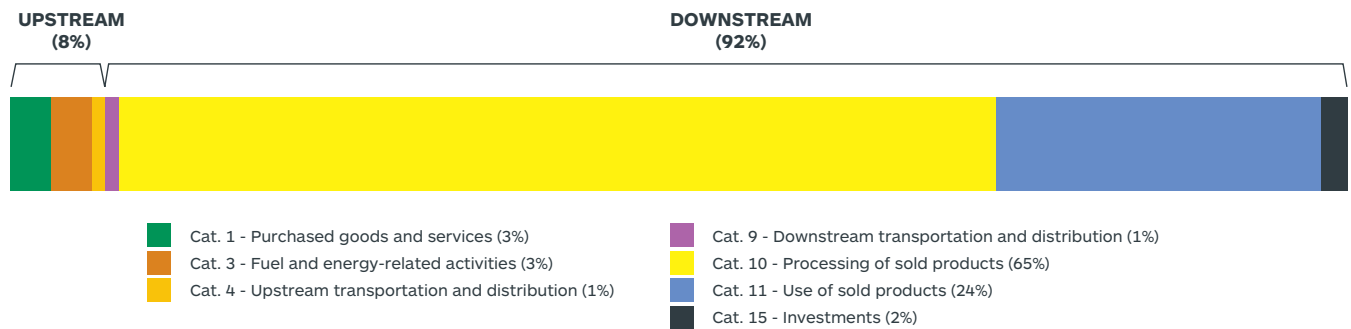
WORKING WITH OTHERS ON SHARED CHALLENGES

Scope 3 GHG emissions

The Scope 3 component of our goal of net zero GHG emissions by 2050[47] recognises our role in contributing to the decarbonisation of the value chain and reflects our commitment to collaborating with value chain partners towards actions and innovations required to address Scope 3 GHG emissions.

In FY24, our reported value chain GHG emissions continued to be dominated by downstream GHG emissions associated with the use and processing of our products, in particular the processing of alumina to manufacture aluminium ingots and the use of metallurgical coal to make steel. When completed, the sale of IMC will reduce our exposure to hard-to-abate GHG emissions from the steel making value chain and is expected to significantly reduce our reported Scope 3 Category 11, Use of sold product GHG emissions. Detail on our methodology for Scope 3 GHG emissions is available in our Sustainability Databook 2024.

FY24 Scope 3 GHG emissions by position in the value chain[48]

UPSTREAM (8%)   **DOWNSTREAM (92%)**

- ■ Cat. 1 - Purchased goods and services (3%)
- ■ Cat. 3 - Fuel and energy-related activities (3%)
- ■ Cat. 4 - Upstream transportation and distribution (1%)
- ■ Cat. 9 - Downstream transportation and distribution (1%)
- ■ Cat. 10 - Processing of sold products (65%)
- ■ Cat. 11 - Use of sold products (24%)
- ■ Cat. 15 - Investments (2%)

FY24 Scope 3 GHG emissions

Reported FY24 Scope 3 GHG emissions were 54.2 Mt CO_2-e, a 17 per cent reduction from FY23 levels of 65.0 Mt CO_2-e. This decrease is primarily attributable to:

- The use of more accurate GHG emission factors in the calculation of emissions associated with Purchased goods and services, and Capital goods (Categories 1 and 2), resulting in a 4.6 Mt CO_2-e reduction for these categories; and
- Lower sales volumes at IMC and Australia Manganese, resulting in a 4.0 Mt CO_2-e reduction for Use of sold products (Category 11); and 1.7 Mt CO_2-e reduction for Processing of sold products (Category 10), respectively.

In FY24 the Department of Forestry, Fisheries and Environment in South Africa published a Grid Emission Factor Report with a grid emission factor for transmission and distribution losses, allowing for more accurate reporting of Scope 3 GHG emissions from electricity consumption in South Africa. This methodology enhancement has led to a 70 per cent (0.7 Mt CO_2-e) increase in reported Scope 3 GHG emissions for fuel and energy-related activities (Category 3)[49].

Our approach

Our areas of focus remain:

- Improving the quantification of our Scope 3 GHG emissions inventory;
- Collaborating with suppliers on reducing GHG emissions in the supply chain;
- Collaborating with customers on reducing GHG emissions, particularly relating to processing of our sold products;
- Maturing our monitoring program for shipping GHG emissions; and
- Participating in stewardship and innovation initiatives.

Scope 3 GHG emissions

Millions of tonnes CO₂-e

FY20	FY21[50]	FY22	FY23[51]	FY24
110.0	61.5	67.4	65.0	54.2
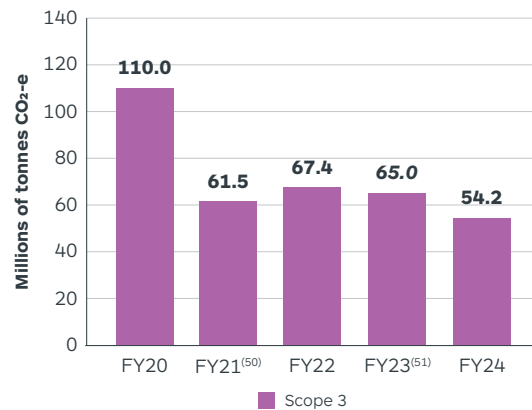
■ Scope 3

FY24 Scope 3 GHG emissions by commodity

- 46%
- 26%
- 24%
- 4%

- ■ Alumina and aluminium
- ■ Metallurgical coal
- ■ Manganese ore
- ■ Other

---
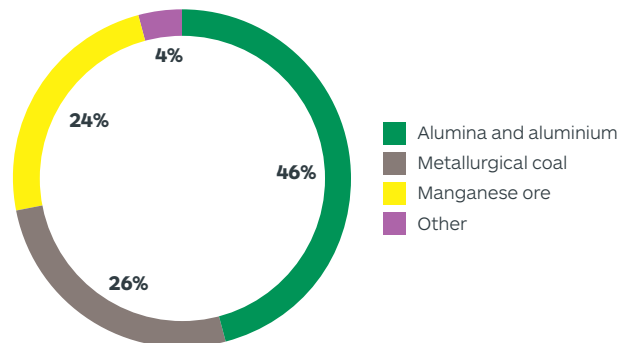
(47) Includes categories 1,2,3,4,6,7,9,10,11 and 15 of Scope 3 GHG emissions. Categories 5, 8, 12 are considered to be immaterial and categories 13 and 14 are not applicable for South32. For more information on Scope 3 categories refer to our Sustainability Databook 2024.
(48) Categories that contributed less than one per cent of FY24 total reported Scope 3 emissions (Categories 2, 6 and 7) are not depicted in this graph.
(49) There is a grid emission factor for transmission and distribution losses which is used for Scope 3 GHG emissions reporting and is separate from the grid emissions factor for purchased electricity, which is used for Scope 2 GHG emissions reporting.
(50) FY21 GHG emissions adjusted to exclude GHG emissions from SAEC and TEMCO, which we divested in FY21.
(51) Downstream transportation and distribution has been restated from 0.9 Mt CO_2-e in FY23 to 0.4 Mt CO_2-e following a review of the methodology used in this category.

Emissions measurement

Improving GHG emissions measurement is essential to understanding climate-related risks and opportunities in the value chain, developing an informed approach to value chain decarbonisation and quantifying Scope 3 GHG emissions reductions.

In FY24, we adopted a new tool for Scope 3 GHG emissions estimation and reporting. This tool carries the "Built on the GHG Protocol" mark, which recognises accounting resources that conform to the GHG Protocol standards. The tool provides more accurate GHG emissions factors for Categories 1 - Purchased goods and services, 2 - Capital goods and 4 - Transportation and distribution. This information will help us to build a more accurate GHG emissions profile of our suppliers to inform our value chain decarbonisation approach. Our Scope 3 GHG emissions inventory and methodology are available in our Sustainability Databook 2024 at _www.south32.net_.

In FY25, we plan to explore opportunities to further improve the robustness of our Scope 3 GHG emissions estimation, including through the use of primary data and enhancements to the integrity of spend-based data used for emission estimations. This will help us to more accurately report our Scope 3 GHG emissions and reductions, avoiding the limitations of current estimation methodologies which are generally not supplier-specific.
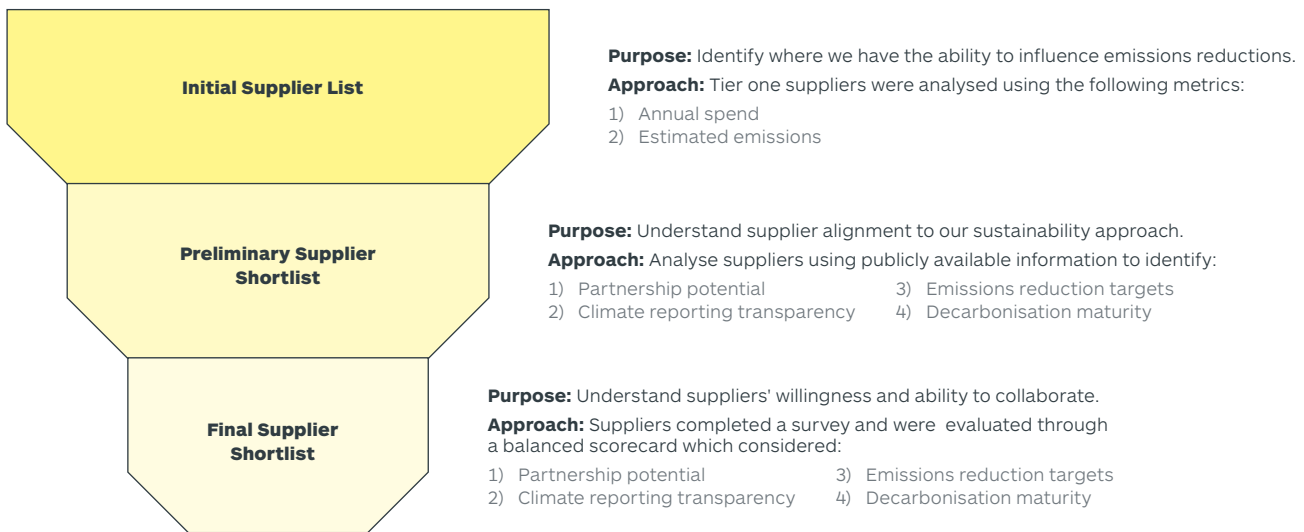
We do not have direct operational control over upstream and downstream activities, and the pathway to net zero across the value chain remains highly uncertain. Accordingly, while we have a long-term goal to achieve net zero GHG emissions across all scopes, we have not set a short- or medium-term Scope 3 GHG emissions reduction target. We will continue to review what Scope 3 commitments may be suitable for our business.

Supplier and customer collaboration

We continue to seek opportunities to engage with key suppliers on opportunities to reduce their GHG emissions associated with upstream activities, such as embedded GHG emissions in goods and services we use.

In late FY23 we established a supplier selection framework to evaluate our suppliers' suitability for potential upstream Scope 3 GHG emissions reduction partnerships. The framework was designed to be repeatable to enable future identification of GHG emissions reduction partnership opportunities and includes a dashboard to track the estimated Scope 3 GHG emissions of suppliers. Applying this framework produced a shortlist of suppliers for focusing our engagement efforts. In FY24, we commenced exploratory conversations with shortlisted suppliers, leading to a partnership with Aurizon as detailed on page 70. We will continue engaging other shortlisted suppliers on potential partnership opportunities in FY25.

Supplier selection framework for GHG emissions reduction partnerships

Initial Supplier List

Purpose: Identify where we have the ability to influence emissions reductions.

Approach: Tier one suppliers were analysed using the following metrics:
1) Annual spend
2) Estimated emissions

Preliminary Supplier Shortlist

Purpose: Understand supplier alignment to our sustainability approach.

Approach: Analyse suppliers using publicly available information to identify:
1) Partnership potential
2) Climate reporting transparency
3) Emissions reduction targets
4) Decarbonisation maturity

Final Supplier Shortlist

Purpose: Understand suppliers' willingness and ability to collaborate.

Approach: Suppliers completed a survey and were evaluated through a balanced scorecard which considered:
1) Partnership potential
2) Climate reporting transparency
3) Emissions reduction targets
4) Decarbonisation maturity

Building on this work, in FY24, we developed a similar framework to evaluate and shortlist customers for exploratory conversations on potential downstream Scope 3 GHG emissions reduction partnerships.

A key challenge in pursuing partnerships that address Scope 3 GHG emissions from the processing of our sold products, namely the smelting of alumina and manganese ore, is that the main driver for these emissions is the electricity required to drive the smelting process. We have limited influence over the electricity source our customers use. In addition, the sale of our metallurgical coal business has reduced our initial shortlist of customers with decarbonisation partnership potential.

In FY25, we plan to continue to engage with customers willing to explore collaboration opportunities to reduce GHG emissions through improvements to processing inputs and process efficiencies. Recognising our increasingly constrained ability to influence GHG emissions reduction in the processing of sold products, we also plan to explore partnerships relating to the downstream transportation of our products, an area where we believe we have a greater ability to influence GHG emissions reductions.

We recognise that our customers want to understand the GHG emissions associated with our products as they seek to develop their own value chain decarbonisation plans. We continue to work on chain of custody requirements through product stewardship initiatives.

Collaborating to reduce GHG emissions in transport supply chains

As part of a recently finalised new rail haulage agreement with Aurizon, Australia's largest rail freight operator, we will be trialling a Battery Electric Locomotive (BEL) at Worsley Alumina in FY25.

Aurizon will deploy a BEL at Worsley Alumina with the aim of replacing diesel fuel with renewable resources. It will be Aurizon's first BEL and the first BEL to be constructed in Australia.

This initiative has the potential to lay the foundations for expanding the use of BELs in Australia's rail-based supply chains and aligns with our wider focus on long-term electrification at the refinery.

Shipping emissions

Maritime freight is an integral part of our supply chain, and we are working to reduce GHG emissions associated with both the shipping of our products and the transportation of supplies to our operations.

Our approach to date includes:

– Improving our monitoring and understanding of GHG emissions associated with ships chartered to transport supplies (including traded goods) to our operations and our products to customers. In FY24, we were able to track actual GHG emissions of over 50 per cent of all shipments (including over 95 per cent of cost, insurance and freight (CIF) shipments[52]), up from 3 percent in FY21;

– Collaborating with Klaveness Combination Carriers (KCC) to develop a contractual mechanism, referred to as a Carbon Adjustment Factor (CAF), to link freight paid for the shipping of caustic soda to the carbon dioxide emissions of their vessels, relative to an agreed baseline.

The CAF results in KCC being paid a higher freight rate if freight carbon dioxide emissions are below the baseline or lower rate if emissions exceed the baseline. Any additional freight paid by South32 as a result of the CAF will be invested towards improving the energy efficiency of KCC's fleet.

In FY24, 11 of the 12 voyages covered by the CAF fell below the baseline (representing 16 per cent of total carbon dioxide emissions), attracting a higher freight rate for those voyages;

– Identifying risks and opportunities relating to the European Union Emissions Trading Scheme (EU ETS) which has been extended to maritime transport emissions since 1 January 2024. In year one, the EU ETS requires shippers to purchase permits to cover at least 40 per cent of their emissions. This requirement increases to 70 per cent in 2025 and 100 per cent in 2026. The increased granularity in our shipping emissions data provides enhanced understanding of opportunities to optimise our shipping arrangements under the new and incoming EU ETS requirements;

– Completing a comprehensive analysis of shipping emissions abatement opportunities across our business in FY24, as part of an ongoing engagement with ZeroLab. Insights gained through this exercise will help to inform our approach to reducing GHG emissions associated with shipping going forward;

– Joining the Sustainable Shipping Initiative, a member-led group that brings together shipowners, operators and managers; banks and financial stakeholders; cargo owners; classification societies; non-profits; ports; and service providers to advance environmental, social, and socioeconomic goals for a sustainable shipping industry, including the alignment of GHG emissions reductions in shipping with global climate ambitions[53]; and

– Joining the Sea Cargo Charter in August 2024, which is a global initiative that provides a framework promoting the disclosure of fuel use data, GHG emissions performance and climate alignment by charterers. Signatories to the Charter commit to reporting annually on their emissions performance against trajectories to meet the International Maritime Organisation's greenhouse gas reduction strategy.
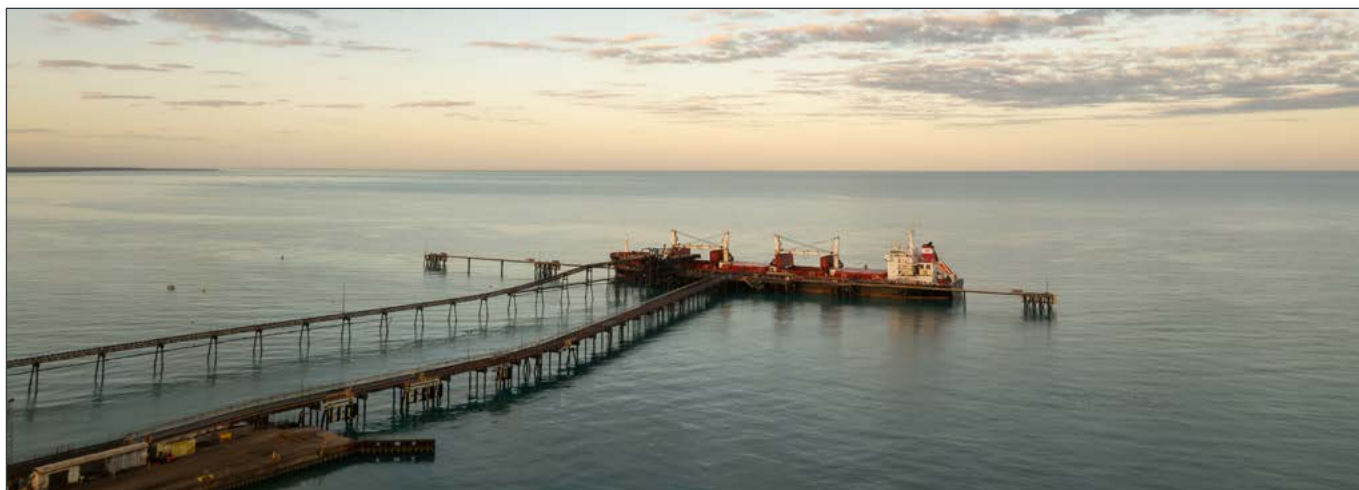
(52) CIF shipments are chartered by South32 and are where we have the greatest opportunity to influence GHG emissions associated with the shipping of goods and/or supplies to customers or operations. Free on board (FOB) shipments are the responsibility of the buyer and therefore opportunities for influence are less.
(53) 'Roadmap to a sustainable shipping industry' at _www.sustainabilityshipping.org_.

Technology and innovation

Technology and innovation are critical to enabling our transition to a low-carbon world and maintaining our competitiveness. Our approach to innovation (known as Innovate32) focuses on enabling investment and delivery of innovation across South32 – including in support of our CCAP. Innovation workstreams include:

– **Low Footprint:** Oversees decarbonisation innovation initiatives, as well as waste, water and biodiversity initiatives focused on minimising our environmental impact.

In FY23, we identified catalytic ventilation air methane (VAM) abatement as a promising class of technology for abating high volumes of mine ventilation air at low VAM concentrations - with potentially greater capability than the regenerative thermal oxidizers being studied at IMC. In FY24, we completed a techno-economic assessment to further investigate the potential of this technology and worked with technology vendors, industry partners and intellectual property owners to develop a plan to commercialise catalytic VAM abatement solutions.

– **Next Generation Mine:** Aims to reshape the way we mine to deliver transformational safety and productivity outcomes. This includes reducing diesel consumption as a fuel source, contributing to improved air quality and health outcomes, as well as lowering GHG emissions.

In FY24, we continued trialling battery electric mobile equipment at Cannington, with the aim of reducing the use of diesel vehicles and equipment and their associated GHG emissions. Learnings from the trials were shared with the Electric Mine Consortium and will be used to inform our next generation of mines, including at Hermosa where Taylor's underground mine design includes primary and secondary battery electric charge bay infrastructure for the battery electric production loaders.

+ Learn more at *www.south32.net/ Sustainability/Stories*.

Collaborating with others

We are collaborating with other companies, industry groups and research organisations to complement our own innovation and technology programs, including through the following collaborative initiatives.

Electric Mine Consortium

We are a founding member of the Electric Mine Consortium (EMC), a collaborative effort between more than 20 global mining and services companies aiming to accelerate progress to mine electrification.

In FY24, we participated in EMC workstreams focused on equipment and data, and energy supply and storage. This included an initiative to identify energy management system providers capable of supporting the transformation of a mining operation powered by increasing amounts of renewable energy and with increasing demands of battery electric mobile equipment. Eight EMC members participated in vehicle and equipment trials during the year, including our trial at Cannington.

Having made important progress towards its vision to be a catalyst for change within the broader industry, the EMC will be concluding its work at the end of September 2024. We look forward to continuing the journey towards mine electrification through continued collaboration with fellow members, building on the networks we have established through the EMC.

For more information, visit *www.electricmine.com*.

BluVein

BluVein is a dynamic energy transfer technology that aims to address some of the limitations of traditional heavy fleet batteries. The BluVein1 system allows concurrent dynamic powering and charging of EVs suited to the underground mine truck configurations, providing an alternative to static charging or fast charging technology.

In FY24, mechanical and electrical designs for BluVein1 were refined and lab-tested in simulated underground conditions and at specialist laboratories in Germany. Construction on the BluVein Proving Ground (located in Queensland) was completed, followed by the first field trials

of the BluVein1 system. Prototype testing of the complete BluVein1 rail and hammer system on underground vehicles is due to commence in FY25. Pending successful outcomes, this technology could be suitable for future operations, such as Hermosa.

For more information, visit *www.bluvein.com*.

Heavy Industry Low-Carbon Transition Cooperative Research Centre

The Heavy Industry Low-Carbon Transition Cooperative Research Centre (HILT CRC) is a collaborative venture between industry, government and research organisations to develop, de-risk and accelerate technologies for heavy industry to transition to net zero. Our focus for participation in HILT CRC is to inform studies for the potential use of thermal energy storage technologies and the design of the next generation of alumina calciners for Worsley Alumina.

In FY24, we continued to participate in a number of projects covering topics such as thermal storage and mechanical vapour recompression, low-carbon calcination and green heat for industry. We also contributed to the development of HILT CRC's new flagship project 'ALUMINext', which is looking at how existing technologies can be retrofitted to reduce emissions at existing alumina refineries and the development of novel technologies to increase efficiency and reduce costs in the next generation of net zero refineries.

For more information, visit *www.hiltcrc.com.au*.

Unearthed

Unearthed runs global innovation challenges to source ideas and solutions for difficult-to-solve problems. Our FY23 'CH4 No More Challenge' led to subsequent investigations into technologies with the potential to abate methane emissions at IMC. In FY24, we launched our 'Soil Shift Challenge' which focuses on finding new ways to generate high quality soil to support the rehabilitation of land disturbed through mining activities.

For more information, visit *https://unearthed.solutions/challenges*.

Working with others on shared challenges continued

Advocacy and our climate change positions

We engage on climate change related policy through direct advocacy, such as engagement with policy makers and submissions to regulatory and policy reforms proposed by governments, and indirect advocacy though our participation in industry associations.

We recognise that the speed and shape of the energy transition will vary across countries and regions, depending on number of factors including policy priorities, responses to macroeconomic impacts of the transition and levels of energy security, access, and affordability.

Governments play an important role in providing effective policy settings to enable sustainable change. We seek to engage regularly on matters relevant to our business and in a way that supports our approach to addressing climate change.

We are committed to conducting direct advocacy and expect our industry associations to conduct advocacy activity in line with our climate change positions. We support:

– The Paris Agreement objectives to limit global temperature rise to well below 2°C this century, and to pursue efforts to limit the increase to 1.5°C;
– Principle-based carbon price mechanisms that promote least cost abatement, collaboration and international transfers;
– Public policy positioning and advocacy that is aligned to the Paris Agreement objectives, with flexibility to accommodate sector and country specific challenges; and
– Technology-neutral or technology-banded energy policy that balances affordable access to reliable energy and GHG emissions reduction.

We don't support advocacy from industry associations on:

– Energy coal expansion or energy coal subsidies, particularly in the absence of an associated position on technology development; and
– Natural gas expansion or gas subsidies where a transitionary role for natural gas in the energy transition is not recognised.

Contributing to policy development

Increased societal emphasis on climate change is being followed by legislative and regulatory reform. We identify and track key reform processes relevant to our commodities, geographical locations, strategy and sustainability approach, and contribute to consultation processes both directly and indirectly through industry associations and groups.

Our FY24 activities included the following focus areas:

– **Critical minerals:** Following the release of the Australian government's Critical Minerals Strategy, the Department of Industry, Science and Resources released the Critical Minerals List Issues paper for public consultation in July 2023.

  We participated in the consultation process directly and through contributions to the Minerals Council of Australia's and Australian Aluminium Council's submission letters. Our submission and contributions to the submissions of these industry groups focused on the importance of flexibility to enable the list to respond to domestic and international settings, as well as supporting the addition of the aluminium value chain (bauxite, alumina, aluminium) and zinc to, and retention of manganese on, the Critical Minerals List.

  The Australian Critical Minerals List was updated in December 2023, which maintained manganese. A new Strategic Minerals List was also established to identify minerals important for the global transition to net zero and broader strategic applications, including aluminium (but not bauxite) and zinc.

– **Natural gas as a transitionary fuel:** In June 2023, the Western Australian Parliament launched an inquiry into the State's Domestic Gas Policy, which is designed to reserve sufficient domestic gas for the State's energy needs and economic development. We made two submissions to the inquiry in August 2023 and November 2023.

  Our submissions referenced the domestic gas market being at risk of short gas supply until at least the early 2030s, compromising our ability to access gas as an interim fuel source for Worsley Alumina. We highlighted the need for greater gas market transparency and policy settings that will support energy security as we pursue longer-term decarbonisation solutions focused on electrification and renewable energy.

– **CBAMs:** In July 2023, we submitted a response to the EU Commission's consultation on draft implementing regulation for the EU CBAM. In our submission we highlighted several areas that we believe require refinement or clarification to improve alignment of the rules with globally recognised methodologies for calculating and reporting GHG emissions.

  In June this year, we submitted a response to the public consultation on the introduction of a United Kingdom CBAM. In our response we affirmed our support for CBAMs as a mechanism to establish parity between countries that price or otherwise regulate carbon emissions and those that do not, and to incentivise global decarbonisation in line with the ambition of net zero by 2050. We also highlighted our belief that CBAMs should be implemented in a way that does not preclude market access or compromise the development and/or industrialisation of countries, particularly those with developing economies.

Industry Associations

Participation in industry associations is an important mechanism to engage and influence issues affecting South32, including climate change. Membership provides important opportunities to indirectly contribute to and influence industry advocacy and knowledge sharing.

We acknowledge that industry associations by their nature are representative of similar member interests, but often from varied backgrounds and perspectives, so consensus is not always possible. Some of the industry associations we are a member of contain broad commodity representation, including energy coal producers, which can create differing views.

Annual industry association review

Since 2019, we have undertaken an annual review of our member industry associations' positions on climate change to evaluate alignment with our own positions, strategy and values. Any potential misalignment is managed consistent with Our Approach to Industry Associations, including the circumstances under which we are prepared to cease our membership.

We engaged an external consultant to support our FY24 review, as we did in FY23, providing continued depth of analysis and impartiality. Building on the process implemented in FY23, the review:

– Focused on a sub-set of our industry associations relevant to climate change advocacy;

– Evaluated our industry association memberships in the context of our approach to addressing climate change and our climate change positions, with activity reviewed against set criteria to define potential areas of misalignment;

– Considered a range of public documentation, including traditional and social media, speeches, submissions, website content and public statements, with a focus on activity during FY24;

– Was supplemented by our regular industry association engagement and participation activities throughout the year via committees, working groups and other membership initiatives; and

– Considered other pertinent supporting information such as analysis and reporting of industry association advocacy by InfluenceMap, an independent body which maps climate policy engagement of industry associations and companies.

The FY24 review found that the positions and advocacy on climate change of most of the industry associations reviewed align with our climate change positions, strategy and values. While inconsistencies were identified in some cases, no findings were determined that would trigger a review of ongoing membership.

These inconsistencies will be raised with the respective associations per the process outlined in Our Approach to Industry Associations, informing our ongoing engagement and discussion.

In FY25, we will continue our practice of regular monitoring and engagement to sustain alignment, raise any concerns as appropriate and consider our ongoing participation as outlined in Our Approach to Industry Associations.

+ **Learn more about our approach to industry associations and our FY24 review at *www.south32.net/industryassociations*.**

Stakeholder engagement on climate change

Our Board and management regularly engage with investors and proxy advisers, with climate change a key topic of discussion.

In addition to ad hoc engagements, extensive Board-led engagement takes place each year in the lead up to our Annual General Meeting which includes meetings with investors and proxy advisers led by our Chair.

Management engagement includes sustainability focused meetings held throughout the year with investors, proxy advisers, investor representative organisations, government representatives and civil society groups.

Since our inclusion in the Climate Action 100+ (CA100+) list of focus companies, we have had regular and productive engagement with our lead investor at CA100+, HESTA. We actively participate in the annual CA100+ Net Zero Company Benchmark assessment process and contributed to the development of the CA100+ Net Zero Standard for Diversified Mining which was published in September 2023.
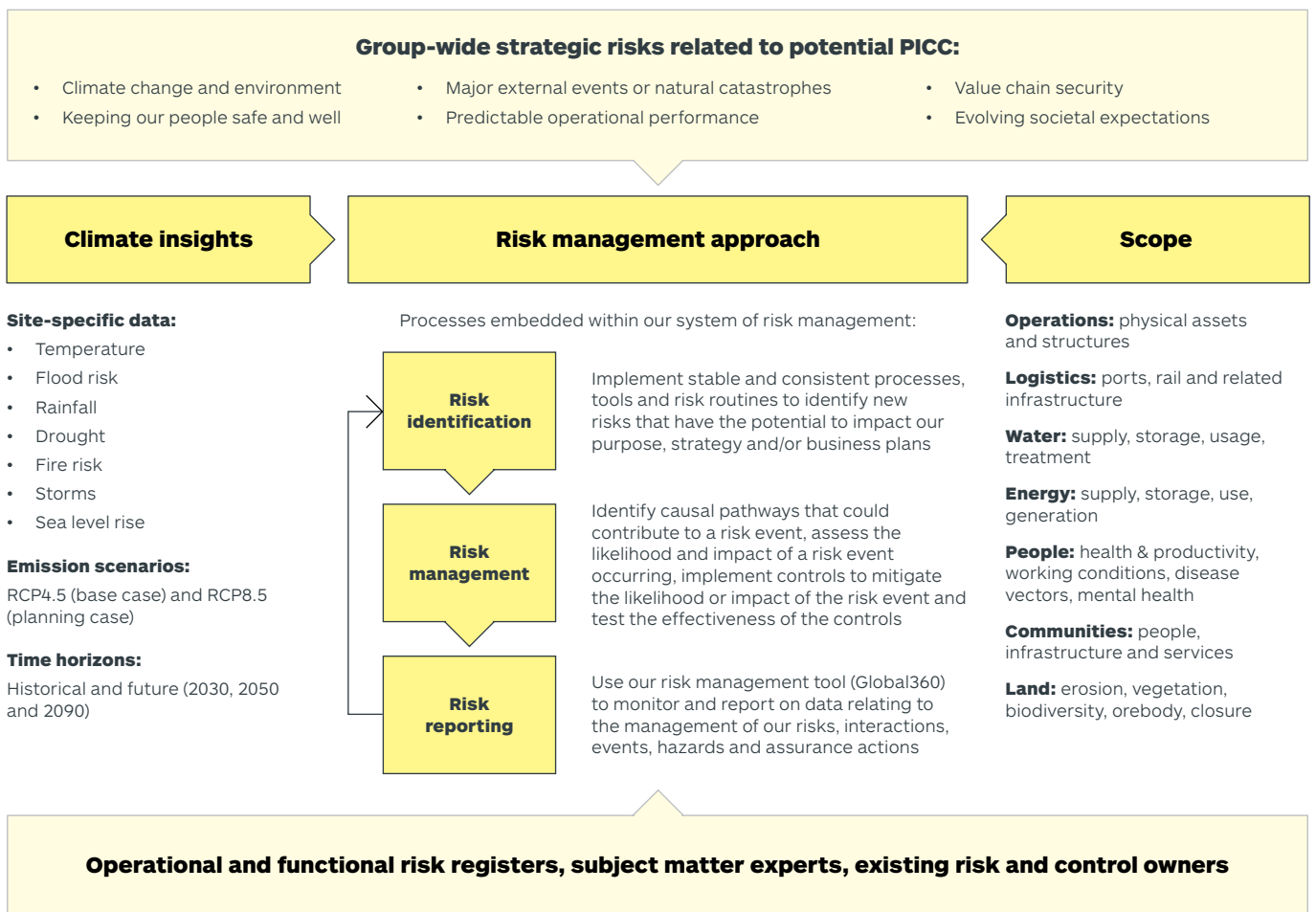
PHYSICAL CLIMATE CHANGE RISK

Physical climate risks are driven or intensified by weather, climate variability and/or climate change. They include acute risks, resulting from changes in the frequency, intensity or location of extreme weather events (e.g. drought or flood events) and chronic risks, resulting from longer-term changes in climate patterns (e.g. sustained higher temperatures, sea level rise).

Physical climate risks have the potential to affect the integrity and performance of our equipment and infrastructure, compromise productivity, and disrupt business continuity (including our value chain activities). In addition, chronic risks may result in increased costs and supply issues for key resources (e.g. energy and water). There may also be broader environmental and socio-economic impacts on key stakeholders, including local communities.

In FY24, we experienced two extreme weather events that caused operational disruption at two of our sites, specifically impacts associated with Tropical Cyclone Megan at Australia Manganese and an extreme rainfall and flooding event at Cannington. As our climate continues to change, so will the frequency, magnitude and location of weather and climate events that may impact our business and wider value chain. In response to the events of FY24, we are conducting a review to draw any specific additional improvement opportunities for our broader approach to planning and resilience. We will continue to work to integrate these and other continuous learnings into our business-as-usual activities and progress our work plan to improve the resilience of the business against the physical impacts of climate change.

Physical climate change risk management

Our approach to managing Group-wide strategic risks related to potential physical impacts of climate change (PICC) is set out below.

Group-wide strategic risks related to potential PICC:

- Climate change and environment
- Keeping our people safe and well
- Major external events or natural catastrophes
- Predictable operational performance
- Value chain security
- Evolving societal expectations

Climate insights	Risk management approach	Scope

Site-specific data:
- Temperature
- Flood risk
- Rainfall
- Drought
- Fire risk
- Storms
- Sea level rise

Emission scenarios:
RCP4.5 (base case) and RCP8.5 (planning case)

Time horizons:
Historical and future (2030, 2050 and 2090)

Processes embedded within our system of risk management:

Risk identification
Implement stable and consistent processes, tools and risk routines to identify new risks that have the potential to impact our purpose, strategy and/or business plans

Risk management
Identify causal pathways that could contribute to a risk event, assess the likelihood and impact of a risk event occurring, implement controls to mitigate the likelihood or impact of the risk event and test the effectiveness of the controls

Risk reporting
Use our risk management tool (Global360) to monitor and report on data relating to the management of our risks, interactions, events, hazards and assurance actions

Operations: physical assets and structures

Logistics: ports, rail and related infrastructure

Water: supply, storage, usage, treatment

Energy: supply, storage, use, generation

People: health & productivity, working conditions, disease vectors, mental health

Communities: people, infrastructure and services

Land: erosion, vegetation, biodiversity, orebody, closure

Operational and functional risk registers, subject matter experts, existing risk and control owners

+ Learn more about our strategic risks in our Annual Report 2024 on pages 28 to 38 at *www.south32.net*.

Our physical climate change risk assessment approach is underpinned by climate data and helps to identify, quantify and manage climate-related risks related to our company-wide strategic risks, and material risks across our operations, functions and projects.

Building on our initial physical risk assessments in FY18, in FY22 we developed climate projections for 2030, 2050 and 2090 using data sourced from a range of local and international sources. Using these projections, we identified climate hazards of concern for each of our operations to conduct our climate hazard assessment. Modelling considered two future emission scenarios, known as Representative Concentration Pathways (RCPs), from the Intergovernmental Panel on Climate Change (IPCC):

- **RCP4.5:** global GHG emissions peak around 2040 and then decline. Global mean surface temperature changes are likely to be 1.1 - 2.6°C by 2100 (relative to the 1986 - 2005 period); and

- **RCP8.5:** global GHG emissions continue to rise throughout the 21st century and global mean temperatures are likely to be 2.6 - 4.8°C by 2100 (relative to the 1986 - 2005 period).

Our physical risk assessment approach aligns with South32's system of risk management which is described in more detail on page 12 of this report. The risk identification process includes considerations of weather events and the climate, and the impact these may have on the threat being assessed. These causal pathways help inform both short-term risk mitigation activities and medium- and long-term adaptation strategies.
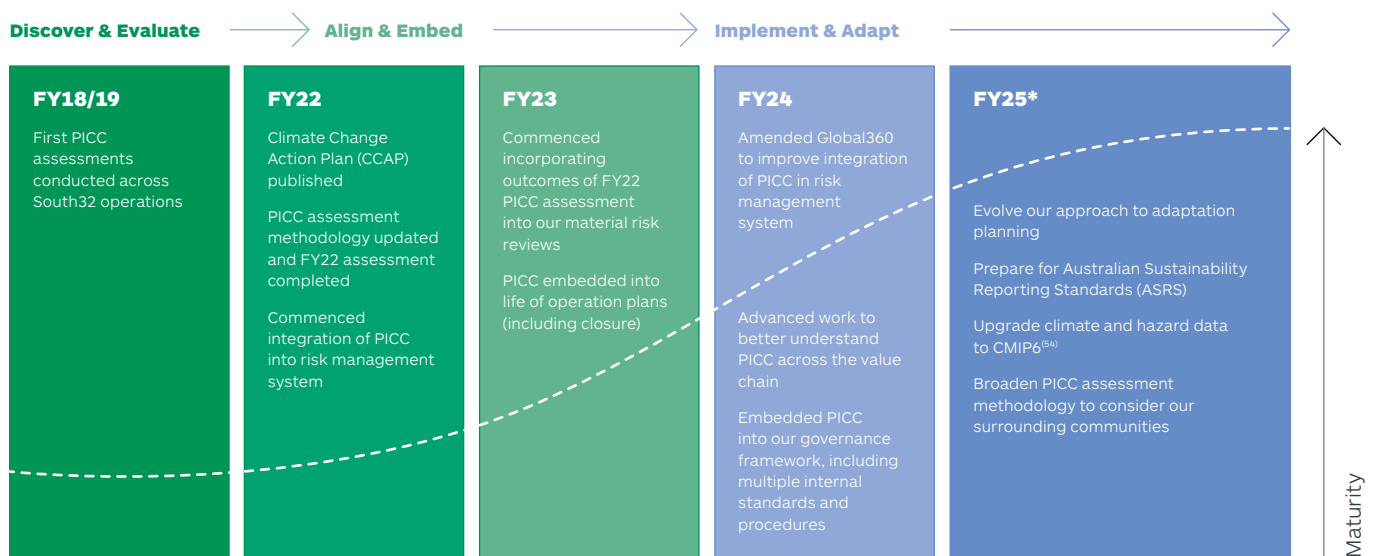
The scope of our assessments includes our operations, logistics (including ports and rail), water and energy supply storage and usage, our people and surrounding communities, and the land that we work on.

+ **Learn more in our 2022 Climate Change Action Plan which was published in our Sustainable Development Report 2022, at _www.south32.net_.**

Our Physical Impacts of Climate Change (PICC) program

Since conducting our first Physical Impacts of Climate Change (PICC) assessments across our operations in FY18/19, we have achieved a number of milestones in identifying and managing our exposure to PICC. Our PICC program to date has mainly centred around three key phases: Discover and evaluate, align and embed, and implement and adapt.

Evolution of the PICC program at South32

Discover & Evaluate → **Align & Embed** → **Implement & Adapt**

FY18/19

First PICC assessments conducted across South32 operations

FY22

Climate Change Action Plan (CCAP) published

PICC assessment methodology updated and FY22 assessment completed

Commenced integration of PICC into risk management system

FY23

Commenced incorporating outcomes of FY22 PICC assessment into our material risk reviews

PICC embedded into life of operation plans (including closure)

FY24

Amended Global360 to improve integration of PICC in risk management system

Advanced work to better understand PICC across the value chain

Embedded PICC into our governance framework, including multiple internal standards and procedures

FY25*

Evolve our approach to adaptation planning

Prepare for Australian Sustainability Reporting Standards (ASRS)

Upgrade climate and hazard data to CMIP6[54]

Broaden PICC assessment methodology to consider our surrounding communities

Maturity

*   Forward-looking planned activities to continue to evolve the PICC program

PICC assessments and adaptation planning

In FY24, we continued to integrate the outcomes of our FY22 PICC assessment into our material risk reviews[55], where PICC were identified as a potential influence on the scope, likelihood or impact of existing operational risk events. This process enables us to more deeply consider the causes and PICC, alongside other threats or hazards, and determine how we can mitigate, transfer, accept or control the risk more effectively. We also enhanced our risk management tool, Global360, with additional functionality to improve the identification and management of climate-related risks.

We continue to investigate additional opportunities to improve how we address physical climate risk in our broader risk management program, for example in the development of guidance documents to support risk practitioners across the business to consider physical climate risk and the development of climate-related risk indicators in risk reporting tools to enable more effective oversight.

In FY25, we plan to advance work on our approach to adaptation planning and enhance existing guidance, tools and procedures by incorporating the latest scientific advances. These efforts are aligned with our preparation for mandatory climate-related financial reporting, including the Australian Sustainability Reporting Standards.

(54) The Coupled Model Intercomparison Project Phase 6 (CMIP6) is the latest generation climate modelling from the IPCC Sixth Assessment Report (AR6) and is now available in downscaled form for our operating sites.
(55) Material risk reviews are a foundational element of our risk management framework and are conducted every three years at a minimum, and more frequently if required.

Physical climate change risk continued

Life of operation and closure planning

Our life of operation plans (including closure cost estimates) consider physical climate risks, incorporating increases to operating costs and additional capital into our forward-looking estimates, where deemed appropriate. Our ongoing analysis of reasonable alternative assumptions with respect to future climate conditions has not identified any additional indicator that the carrying value of assets cannot be recovered or that useful lives of assets will be shortened.

Closure plans for our operations consider, amongst other things, site-based projections for relevant climate-related hazards (for example, extreme temperature, drought, extreme precipitation) over various time horizons. We derive a probabilistic view of risk to calculate the potential financial impact of climate change on our closure cost provisions and consider these in our forward-looking estimates.

For example, the closure provision at Worsley Alumina includes US$8.4 million[56] for costs associated with additional rehabilitation activities to remediate climate change-associated tree mortality for non-drought tolerant plant species and elevated bushfire risk. Our closure planning and cost provisioning will continue to evolve as our operations move through their life of operation phases and as climate data continues to improve.

Value chain, communities and ecosystems

We have progressed work to better understand the potential impacts of climate change across the value chain. In FY24, an assessment of climate change impacts on high-use critical production materials was conducted to help inform our approach to enhancing supply chain resilience. The analysis covered the likelihood of climate hazards at source locations and logistics, as well as the potential impact on material supply, and identified opportunities to improve controls. This work will inform decisions and actions to proactively manage risks and mitigate potential climate impacts on our operations and value chain. Examples include holding more critical spares and developing alternate supplier relationships.

Considering PICC on the downstream value chain, we have established a multi-year program of work with the aim to bolster our resilience, enhance competitiveness and facilitate market access. In FY24, we commenced a pilot project to understand PICC on a number of critical aluminium distribution routes, including freight and discharge ports. Following the completion of this pilot, we will iterate and refine our approach, broadening the scope to include additional commodities, key routes and geographies.

In FY25, we will continue our work with customers and suppliers to support their resilience to PICC. We also intend to broaden our consideration to the potential vulnerabilities of communities and ecosystems in the areas in which we operate to the physical impacts of climate change. While this work was initially planned for FY24, we will prioritise the PICC assessments of communities in FY25, with ecosystems to follow development of our approach to nature-related risks and opportunities which we aim to publish in 2025. Learn more about this work on page 38 of this report.

+ **Learn more about our climate change related estimates, assumptions, and judgments in Note 2(c) to the financial statements in our Annual Report 2024 at _www.south32.net_.**

(56) South32 share, discounted to present value. This amount is based on existing land disturbance and does not account for future disturbance, nor does it include climate-related costs already separately included in the closure provision through incorporating climate-resilient design principles (e.g. tailings storage facility design).

GOVERNANCE AND RISK MANAGEMENT

Climate change governance

Climate change is a material strategic and governance issue for South32 that is overseen by our Board with the support of its standing Committees. Our Board oversees management's development and implementation of strategy and delegates to the Chief Executive Officer (CEO) the authority to manage the day-to-day affairs of the Group.

Our Board

Approves our overall climate change approach, including our Climate Change Action Plan (CCAP) and the public commitments and policy positions therein. Together with the Sustainability Committee, the Board oversees management's implementation and development of our subsequent CCAPs. It also oversees the governance, strategy, risk management and performance of the Group with respect to material climate-related risks and opportunities.

The Board's standing Committees report to the Board after their scheduled meetings on any material matters within their terms of reference arising out of the meetings (including climate-related issues, risks and opportunities as applicable), as well as performance against the Group's targets and goals. The Board uses this information as an input when discharging its reserved functions in relation to our strategy, allocation of capital, budget, corporate development decisions, risk oversight and statutory disclosures.

Sustainability Committee

Oversees our approach to managing climate-related risks and opportunities and monitors and reviews the Group's performance and resilience in this area. This includes endorsing public climate change targets and commitments proposed by management and monitoring delivery (including decarbonisation initiatives) against them.

The Committee receives reports from management at each scheduled meeting on climate-related risks, opportunities and issues, including progress and performance against GHG emissions forecasts, public commitments, decarbonisation initiatives and emerging policy and regulation.

The Committee and management receive updates from internal and external experts about developments in climate science, policy, regulation and technology.

Directors also receive an annual external briefing addressing emerging climate change issues and related societal expectations and trends.

Risk and Audit Committee

Oversees our corporate reporting, risk management and assurance practices. This includes monitoring and reviewing our climate change and environment strategic risk, and associated key risk indicators and management responses, considering any recommendations from the Sustainability Committee.

Remuneration Committee

Oversees our remuneration and benefits framework to gain assurance that remuneration arrangements are equitable and aligned to the long-term interests of shareholders, and support our purpose, strategy and values. This includes recommending to the Board executive remuneration outcomes tied to climate change-related performance conditions, considering any recommendations from the Sustainability Committee.

Nomination and Governance Committee

Receives updates on developments and trends in corporate governance, including in the area of climate change. It also regularly reviews the mix of skills competencies and experience represented by Directors to ascertain whether they remain appropriate for our purpose, strategy and relevant emerging business and governance issues.

+ **Learn more about how Board and Committee oversight was exercised in FY24 and the skills and capabilities of Directors to support this work in our Corporate Governance Statement 2024 at at *www.south32.net*.**

Management

CEO and Lead Team

Our CEO, together with the Lead Team, is accountable for developing and implementing our CCAP. Our CEO and Lead Team assess and report to the Board and its Committees on the impact of material climate-related risks and opportunities, including the climate resilience of our strategy and business model and implications for our financial position and performance.

Climate Change Steering Committee (CCSC)

Established in August 2024, the CCSC is composed of Lead Team members and is responsible for overseeing management of climate-related risks and opportunities and the development and implementation of our CCAP. The Committee also provides support for the continued integration of our climate change response into our strategy, governance and risk management processes.

The CCSC is supported in its monitoring of climate-related risks, opportunities and issues through quarterly progress and performance reporting of GHG emissions, decarbonisation initiatives, and risk management activities. The Lead Team and CCSC also receive half yearly risk sensing reports, which include climate-related risks and opportunities.

Local programs of work are designed to support delivery of our CCAP and climate-related risks and opportunities are integrated into life of operation planning and risk management processes.

Implementation is primarily supported through our internal environment and climate change standard, which defines minimum performance requirements for energy and decarbonisation planning, and environmental and climate resilience management. Performance requirements for managing climate-related risks and opportunities are also defined in our internal planning, social performance and closure standards.

Executive remuneration

Since FY22, 20 per cent of the long-term incentive portion of the remuneration of our CEO and Lead Team has been directly linked to our performance on climate change and the transition of our portfolio towards commodities required for a low-carbon world. Performance against these measures will be assessed by the Board at the end of the four-year performance period. Annual progress updates are provided in our Remuneration report in our Annual Report 2024, available at *www.south32.net*.

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*.

Our risk management framework applies to all risks, such that our consideration of climate-related risks is fully integrated into our overall risk management approach. Climate-related risks are managed at both the company-wide strategic level and the local level for operations, functions and projects.

Our assessment of climate-related risks includes consideration of existing and emerging regulatory requirements related to climate change.

Assessing risks relating to climate change mitigation and adaptation alongside other risks enables us to consider their relative significance (and our responses) in the context of the South32 Group as a whole. This helps with the integration of our approach to managing climate-related risks and opportunities into our overall system of risk management.

Strategic risks

In FY24, we identified 13 strategic risks which could influence our plans and the sustainability of our business. These include:

– Portfolio reshaping, encompassing opportunities and threats relating to the transformation of our portfolio towards commodities critical to a low-carbon future; and
– Climate change and environment, encompassing opportunities and threats relating to climate change mitigation and adaptation, as well as environmental management.

Other identified strategic risks that reference climate change include major external events or natural catastrophes, supply chain security, evolving societal expectations, and political risks, actions by governments and/or authorities.

Reporting boundaries and restatements

This report discloses sustainability data for the fiscal year ending 30 June 2024 and covers the active operations operated by South32 (including joint ventures) and where appropriate, key matters arising at our development projects and options, and exploration prospects.

Data for non-operated joint ventures is not reported unless otherwise stated.

Our operations

South32's operations include our subsidiaries and operated joint ventures, as shown in the table below. Unless otherwise stated, data presented in this report and the Sustainability Databook 2024 is inclusive of these operations.

Unless otherwise stated, data for our operations is reported on a 100 per cent ownership basis (e.g., for a 63.7 per cent-owned operation, we report 100 per cent of the data).

Operation	Ownership	Joint venture partner
Cannington	100%	
Cerro Matoso	99.9%	
Hillside Aluminium	100%	
Illawarra Metallurgical Coal	100%	
Mozal Aluminium	63.67%	Industrial Development Corporation of South Africa Limited – 32.48%
		Mozambique Government – 3.85%
Worsley Alumina	86%	Japan Alumina – 10%
		Sojitz Alumina – 4%
Australia Manganese	60%	Anglo American – 40%
South Africa Manganese	54.6% ore share	Anglo American – 29.6%
		Ntsimbintle Holdings – 9.0%
		NCAB Resources – 7.0%
		Iziko Resources – 5.0%
		Kgolo Community Development Trust – 5.0%

South Africa Manganese consists of:

– Metalloys manganese alloy smelter (South32 share, 60%: Anglo American, share 40%). The smelter was placed on care and maintenance in FY20, and therefore limited performance data is disclosed in this report. In June 2024, Samancor Manganese Proprietary Limited, a subsidiary of South32, entered into a binding agreement to sell Metalloys. The sale is expected to be completed in 2025; and

– Mamatwan and Wessels mines, which are held by Hotazel Manganese Mines Pty Ltd (HMM). The Group holds a 60 per cent interest in Samancor Holdings (Pty) Ltd (Samancor). Samancor indirectly owns 74 per cent of HMM, which gives the Group its indirect ownership interest of 44.4 per cent. The remaining 26 per cent of HMM is owned by B-BBEE entities, of which 17 per cent of the interests were acquired using vendor finance with the loans repayable via distributions attributable to these parties, pro rata to their share in HMM. Until these loans are repaid, the Group's interest in HMM is accounted for at 54.6 per cent. Joint venture ownership provided represents the total ownership based on South32's indirect interest of 44.4%.

Illawarra Metallurgical Coal (IMC)

In February 2024, we announced our entry into a binding agreement to sell IMC. Refer to market release 'Sale of Illawarra Metallurgical Coal' dated 29 February 2024. The transaction is expected to complete on 29 August 2024.

Our development projects and options

South32 development projects and options include South32 subsidiaries or operated joint ventures. Due to the evolving nature of the development projects and options, limited data for material sustainability topics is disclosed within this report or the Sustainability Databook 2024. However, direct South32 employees based at these locations are included in our people data.

Development project/option	Interest	Status	Notable inclusions or exclusions for FY24
Hermosa (Taylor and Clark deposits)	100%	Taylor deposit in execution	Hermosa is a polymetallic development located in Santa Cruz County, Arizona. It comprises the zinc-lead-silver Taylor deposit (Taylor deposit), the battery-grade manganese Clark deposit (Clark deposit) and a land package with the potential for further polymetallic and copper mineralisation.
			The development of Hermosa's Taylor deposit was approved in February 2024, with first production expected in H2 FY27[1]. The Clark deposit is in definition phase pre-feasibility study.
Eagle Downs Metallurgical Coal	50%	Divestment completed	In February 2024, South32 Eagle Downs Pty Ltd, a subsidiary of South32 Ltd, entered into a binding agreement to divest its 50 per cent interest in the Eagle Downs Metallurgical Coal project. The transaction was completed on 12 August 2024[2].

(1) Refer to market release 'Final investment approval to develop Hermosa's Taylor Deposit' dated 15 February 2024.
(2) Refer to media release "Agreement to divest interest in Eagle Downs" dated 12 February 2024.

Reporting boundaries and restatements continued

Non-operated joint ventures

Non-operated joint ventures (NOJVs) are operations, development projects and options, and exploration prospects, that are not wholly owned by South32 and where South32 is not the operator. Unless otherwise stated, data for NOJVs is excluded from this report and the Sustainability Databook 2024. However, direct South32 employees based at these locations are included in our people data.

Non-operated joint venture	South32 share	Joint venture partner	Production status
Ambler Metals	50%	Trilogy Metals – 50%	Studies and exploration
Sierra Gorda S.C.M	45%	KGHM Polska Miedz S.A. – 55%	Active
Alumar Refinery[1]	36%	Alcoa – 54%	Active
		Rio Tinto – 10%	
Alumar Smelter[2]	40%	Alcoa – 60%	Active
Mineração Rio do Norte S.A[1]	33%	Rio Tinto – 22%	Active
		Glencore – 45%	
Port Kembla Coal Terminal[3]	16.67%	Glencore / Centennial Coal / Simec Mining / Peabody Coal / Wollongong Coal	Active

(1) The Alumar refinery and the Mineração Rio do Norte S.A (MRN) bauxite mine are often grouped as an asset, referred to collectively as Brazil Alumina.
(2) Also referred to within the context of South32 as Brazil Aluminium.
(3) Our interest in Port Kembla Coal Terminal will be assumed by the buyer as part of the sale of IMC.

Divested operations

Data for operations formerly owned and operated by South32 is included for all reporting periods prior to the date of divestment.

Where we have set Group-level targets and goals against a baseline that includes data of an operation that is subsequently divested, we may revise the baseline for these targets and goals to exclude the divested operation and reflect the past performance of South32's current portfolio of operations.

Operation	Status
South Africa Energy Coal (SAEC)	Divested, 1 June 2021
Tasmania Electro Metallurgical Company (TEMCO)	Divested, 1 January 2021

Revisions and restatements

Operational greenhouse gas (GHG) emissions

In FY24, IMC transitioned its reporting methodology from Continuous Emissions Monitoring (CEM) to Periodic Emissions Monitoring (PEM). The updated methodology was used for FY23 GHG emissions reporting to the Clean Energy Regulator (CER). The CER did not request us to restate historical emissions.

Updated historical emissions for IMC have been disclosed in this report and Sustainability Databook 2024 as follows:

– IMC Scope 1 GHG emissions have been revised for FY22 and FY23, consistent with the approach in our Sustainability Databook of reporting historical facility-level emissions over a two-year period; and

– South32 Group Scope 1 GHG emissions have been updated for FY20 – FY24, consistent with the approach in our Sustainability Databook of reporting historical emissions over a 5-year period, which includes the FY21 baseline for our 2035 operational GHG emissions (Scope 1 and 2) reduction target.

Adjusting the FY21 baseline for our 2035 target to reflect the change in IMC's emissions reporting methodology would increase the allowable GHG emissions to achieve the target. Considering this and the sale of IMC, we have elected not to adjust the baseline.

Following completion of the sale of IMC, the FY21 GHG emissions baseline will be updated to remove IMC. This is consistent with the approach under the GHG Protocol which seeks to ensure that the divestment of assets is not counted towards the achievement of GHG emissions reduction targets. The updated FY21 baseline for our 2035 target will be 18.2 Mt CO_2-e.

KPMG

Independent Assurance Report to the Directors of South32 Limited

Conclusion

a) Greenhouse Gas Emissions – Reasonable assurance

In our opinion, in all material respects, South32 Limited's reported Greenhouse Gas (GHG) Emissions of 20.3 Mt CO_2-e (Scope 1 and 2) have been prepared in accordance with the World Resources Institute and World Business Council for Sustainable Development (WRI and WBCSD) GHG Protocol (market-based method) and the basis of preparation as disclosed in the South32 Limited Annual Report (AR), Sustainable Development Report (SDR), Sustainability Databook (Databook) and Standards and Frameworks Reporting Index (Index) for the year ended 30 June 2024.

b) Water Inputs and Outputs – Reasonable assurance

In our opinion, in all material respects, South32 Limited's reported total Operational Water Inputs of 81,695 megalitres and reported total Operational Water Outputs of 73,867 megalitres have been prepared in accordance with the Minerals Council of Australia's Water Accounting Framework and the basis of preparation as disclosed in the AR, SDR, Databook and Index for the year ended 30 June 2024.

c) Assured Sustainability Information – Limited assurance

Based on the evidence we obtained from the procedures performed, we are not aware of any material misstatements in the Assured Sustainability Information, as described below, which has been prepared by South32 Limited in accordance with the Global Reporting Initiative (GRI) Standards 2021 (GRI Standards), Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD Recommendations), the International Council of Mining and Metals (ICMM) Mining Principles and mandatory requirements set out in the ICMM Position Statements, and the basis of preparation as disclosed in the AR, SDR, Databook and Index for the year ended 30 June 2024.

Information Subject to Assurance

Reasonable assurance

The information subject to our reasonable assurance engagement are as follows:

a) South32 Limited's reported Greenhouse Gas (GHG) Emissions of 20.3 Mt CO_2-e (Scope 1 and 2) for the year ended 30 June 2024 as disclosed in the AR, SDR, Databook and Index, available on South32's website at *https://www.south32.net/investors-media/investor-centre/annual-reporting-suite* (South32's website)

b) South32 Limited's reported total Operational Water Inputs of 81,695 megalitres and reported total Operational Water Outputs of 73,867 megalitres for the year ended 30 June 2024 as disclosed in the AR, SDR, Databook and Index, available on South32's website

Independent Assurance Report to the Directors of South32 Limited continued

Information Subject to Assurance continued

Limited assurance

The information subject to our limited assurance engagement is the Assured Sustainability Information, which comprises the following data and statements:

Assurance Sustainability information

- South32's disclosure that it has incorporated the requirements of the ICMM Principles, the relevant Performance Expectations (PEs) and the mandatory requirements set out in the ICMM Position Statements, into its own policies, strategies and standards;

- South32's disclosure regarding the process it has adopted to identify and prioritise its material sustainable development risks and opportunities, and prioritisation approach, as set out in the SDR, Databook and Index, available on South32's website;

- South32's disclosure that it has:

  - met the reporting requirements of Global Reporting Initiative (GRI);

  - provided a Glossary of definitions used to report quantitative and qualitative performance; and

  - disclosed its prioritisation process for the selection of assets for PE validation

  as set out in the SDR, Databook and Index, available on South32's website;

- The following material topic areas and related performance data disclosed in the SDR (except for Case Studies), Databook and Index, available on South32's website:

  o Health and safety (pages 16 to 20 in the SDR and tab Health and Safety in the Databook);

  o Social Investment (page 29 in the SDR (amount spent on social investment) and tab Social investment (Table 1 and 2) in the Databook);

  o Biodiversity Conservation (pages 39 to 42 in the SDR and tab Biodiversity Conservation in the Databook);

  o Water Stewardship (pages 43 to 45 in the SDR and tab Water Stewardship in the Databook);

  o Addressing Climate Change (pages 52 to 76 in the SDR and tab Climate change in the Databook);

- The following sections in the AR available on South32's website:

  o Lost Time Injury Frequency, Social Investment and Greenhouse Gas Emissions in "Performance highlights" (page 7 in the AR);

  o The following sections under "Our stakeholders and impact" (pages 12 and 13 in the AR):

    - "Communities";
    - "Environment and Climate Change";

  o The following sections under "Our strategy in action" (page 20 and 24 in the AR):

    - "Working safely"; and
    - "Create social, environmental and economic value" (Social investment and GHG emissions only).

Criteria Used as the Basis of Reporting

The criteria used as the basis of reporting includes the GRI Standards, the TCFD Recommendations published by the Financial Stability Board, the ICMM Mining Principles and mandatory requirements set out in the ICMM Position Statements published by the ICMM, the GHG Protocol published by the WRI and WBCSD, the Minerals Council of Australia's Water Accounting Framework, and the basis of preparation disclosed in the AR, SDR, Databook and Index, prepared by Management of South32 ("the criteria").

Independent Assurance Report to the Directors of South32 Limited continued

Basis for Conclusion

We conducted our work in accordance with International Standard on Assurance Engagements ISAE 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance on Greenhouse Gas Statements (Standards). We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

In accordance with the Standards we have:

- used our professional judgement to assess the risk of material misstatement and plan and perform the engagement to obtain reasonable assurance that the GHG emissions and total Operational Water Inputs and Outputs are free from material misstatement, whether due to fraud or error;
- used our professional judgement to plan and perform the engagement to obtain limited assurance that we are not aware of any material misstatements in the Assured Sustainability Information, whether due to fraud or error;
- considered relevant South32 internal controls when designing our assurance procedures, however we do not express a conclusion on their effectiveness; and
- ensured that the engagement team possesses the appropriate knowledge, skills and professional competencies.

Reasonable assurance - Summary of Procedures Performed

We have performed the following procedures:

- performed inquiries with senior management and relevant staff at corporate and 6 operating sites (1 site visit and 5 remote reviews) to obtain an understanding over processes around the following environmental areas in scope:
  - Greenhouse gas emissions, energy consumption and water at Worsley Alumina, Illawarra Metallurgical Coal and Cerro Matoso
  - Water at Australia Manganese
  - Greenhouse gas emissions and energy consumption at Hillside Aluminium and Mozal Aluminium
- evaluated the design and implementation of the key systems, processes and controls for collecting, managing and reporting the GHG emissions and total Operational Water Inputs and Outputs;
- evaluated the appropriateness of quantification methods and reporting policies used, and the reasonableness of estimates made by South32 Limited;
- tested certain controls for collecting, managing and reporting the GHG emissions and total Operational Water Inputs and Outputs;
- agreed the GHG emissions and total Operational Water Inputs and Outputs data to relevant underlying sources; and
- assessed the suitability and application of the criteria in respect of GHG emissions and total Operational Water Inputs and Outputs.

Limited assurance - Summary of Procedures Performed

Our limited assurance conclusion is based on the evidence obtained from performing the following procedures:

- enquiries with senior management and relevant staff at corporate and 6 operating sites (1 site visit and 5 remote reviews) to understand South32's process for determining material issues, and developing the Assured Sustainability Information within South32 Limited's AR, SDR, Databook and Index for the year ended 30 June 2024;
- assessed the suitability and application of the criteria in respect of the Assured Sustainability Information;
- evaluated the design and implementation of the key systems, processes and controls for collecting, managing and reporting the Assured Sustainability Information;
- performed risk analysis, including print and social media searches, to validate the completeness of South32's own materiality assessment and to determine the scope of assurance testing at corporate and operating sites;
- assessed the reasonableness of the assumptions underlying the forward-looking statements set out in the Assured Sustainability Information;
- assessed the alignment of the Assured Sustainability Information to the TCFD Recommendations;
- agreed the Assured Sustainability Information to relevant underlying sources on a sample basis; and
- assessed that the indicators reported were in accordance with the GRI Standards and Subject Matters 1 to 5 of the ICMM Assurance and Validation Procedure.

Independent Assurance Report to the Directors of South32 Limited continued

How the Standards Define Reasonable Assurance, Limited Assurance and Material Misstatement

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Reasonable assurance is a high level of assurance, but is not a guarantee that it will always detect a material misstatement when it exists.

Misstatements, including omissions, are considered material if, individually or in the aggregate, they could reasonably be expected to influence relevant decisions of the Directors of South32.

Inherent limitation

There are inherent limitations in performing assurance—for example, reasonable assurance engagements are based on selective testing of the information being examined. Because of this, it is possible that fraud or error might occur and not be detected. An assurance engagement is not designed to detect all instances of fraud or error, because such an engagement is not performed continuously throughout the period being examined, and because the procedures performed are undertaken on a test basis. The conclusions expressed in this report have been formed on the above basis.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating, and sampling or estimating such data.

Greenhouse Gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the amounts needed to combine emissions of different gases.

Use of this Assurance Report

This report has been prepared for the Directors of South32 for the purpose of providing an assurance conclusion on the Assured Sustainability Information, GHG Emissions and total Operational Water Inputs and Outputs and may not be suitable for another purpose. We disclaim any assumption of responsibility for any reliance on this report, to any person other than the Directors of South32, or for any other purpose than that for which it was prepared.

KPMG

Independent Assurance Report to the Directors of South32 Limited continued

South32's Responsibility

South32 is responsible for:

- Determining that the criteria is appropriate to meet their needs;
- Preparing and presenting the Assured Sustainability Information, GHG emissions and total Operational Water Inputs and Outputs in accordance with the criteria;
- Determination of South32's GRI Standards disclosures in accordance with the GRI Standards and guidelines;
- Establishing internal controls that enable the preparation and presentation of the Assured Sustainability Information, GHG emissions and total Operational Water Inputs and Outputs that are free from material misstatement, whether due to fraud or error;
- Ensuring the basis of preparation in accordance with which the Assured Sustainability Information has been determined and compiled is clearly and unambiguously set out in the AR, SDR, Databook and Index;
- Informing us of any known and/or contentious issues relating to the information subject to assurance; and
- Maintaining integrity of the website.

Our Responsibility

Our responsibility is to perform limited assurance in respect of the Assured Sustainability Information, including Subject Matters 1 to 5 of the ICMM Assurance and Validation Procedure and reasonable assurance in respect of GHG emissions and total Operational Water Inputs and Outputs for the year ending 30 June 2024, and to issue an assurance report that includes our conclusions.

Our Independence and Quality Management

We have complied with our independence and other relevant ethical requirements of the Code of Ethics for Professional Accountants (*Including Independence Standards*) issued by the Australian Professional and Ethical Standards Board and complied with the applicable requirements of the International Standard on Quality Management 1 to design, implement and operate a system of quality management.

Julia Bilyanska

Julia Bilyanska
Partner
KPMG

Perth
29 August 2024

Glossary terms and abbreviations

Terms and abbreviations

ABC
Anti-bribery and corruption.

Acid Rock Drainage (ARD)
Acidic water rich in heavy metals that can occur during and after site operation as a result of exposing naturally encapsulated rock and soil to air and water.

Agency contractor
This is an individual employed by an external organisation, whose labour is provided to South32 pursuant to an agreement between South32 and the employer organisation. Agency contractors must be onboarded through South32 Human Resources processes, managed as an employee and are always supervised by a South32 employee. Can also be referred to as a Labour Hire Contractor or an Embedded Contractor.

Alumina
Aluminium oxide (Al_2O_3). Alumina is produced from bauxite in the Bayer refining process. It's then converted (reduced) in an electrolysis cell to produce aluminium metal.

Aluminium Stewardship Initiative (ASI)
The ASI works together with producers, users and stakeholders in the aluminium value chain to collaboratively foster responsible production, sourcing and stewardship of aluminium.

Artifical intelligence
Artificial intelligence (AI) is the ability for machines to complete tasks commonly associated with human intelligence.

ASX
ASX Limited or Australian Securities Exchange.

Australian Carbon Credit Unit (ACCU)
A carbon offset credit issued by the Australian Government under the Australian Carbon Credit Unit Scheme. Each ACCU represents one tonne of carbon dioxide-equivalent emissions reduced or abated by approved projects.

Baseline water stress
The ratio of total annual water withdrawals to total available renewable surface and groundwater supplies, accounting for upstream consumptive use. Higher values indicate more competition among users. The values and definition of baseline water stress have been derived from World Resources Institute (WRI) Aqueduct 4.0: Updated Decision-Relevant Global Water Risk Indicators.

Base metal
A common metal that is not considered precious, such as aluminium, copper, zinc and lead.

Bauxite
Principal commercial ore of aluminium.

B-BBEE
Broad-Based Black Economic Empowerment.

Behind-the-meter
Electricity that is generated on the customer side of utility metering.

Biodiversity
Refers to the variety of life on Earth – the different animals, plants and micro-organisms, their genetic diversity and the ecosystems of which they are a part.

Black People
As defined in the *Broad-Based Black Economic Empowerment Amendment Act 2013* (South Africa), a generic term meaning Africans, Coloureds and Indians who are citizens of the Republic of South Africa by birth or descent; or who become citizens of the Republic of South Africa by naturalisation before 27 April 1994 or on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date.

Board
The Board of Directors of South32 Limited.

Carbon Border Adjustment Mechanism (CBAM)
A CBAM is a mechanism implemented by governments to account for the carbon cost of producing imported goods, with the ultimate aim of reducing greenhouse gas emissions and supporting global progress towards net zero. The European Union CBAM entered into force on 1 October 2023.

Carbon credit
A transferrable instrument representing an emission reduction of one metric tonne of carbon dioxide, or an equivalent amount of other greenhouse gases, that has been created and verified in accordance with a regulatory program in which they can be used towards compliance with a legal obligation to meet an emissions limit.

Carbon leakage
A situation that may occur when producers regulated by domestic carbon pricing schemes cannot compete with cheaper, more carbon-intensive products manufactured in other jurisdictions. This creates a risk that these producers may relocate production to jurisdictions where carbon pricing measures are less stringent, or that customers may substitute domestic products with cheaper (and more carbon intensive) imports.

Carbon offset
An action that avoids, reduces or removes GHG emissions to compensate for emissions that occur elsewhere.

Catchment
The area of land from which all surface runoff and subsurface water flows through a sequence of streams, rivers, aquifers and lakes into the sea or another outlet at a single river mouth, estuary, or delta. Catchments include associated groundwater areas and might include portions of waterbodies (such as lakes or rivers). In different parts of the world, catchments are also referred to as 'watersheds' or 'basins' (or sub-basins).

CCAP
Climate Change Action Plan prepared in 2022 which can be found in our 2022 Sustainable Development Report available at *www.south32.net*. Our CCAP describes our approach and the actions we are taking to address the risks and opportunities that climate change presents for our business.

CEO
Chief Executive Officer.

CFO
Chief Financial Officer.

CO_2-e
Carbon dioxide equivalent.

Code
Code of Business Conduct.

Coking coal
Used in the manufacture of coke, which is used in the steelmaking process by virtue of its carbonisation properties. Coking coal is a form of, and may also be referred to as, metallurgical coal.

Contextual water target
A contextual water target is a specific timebound target that is set to deliver an intended outcome based on the environmental and social context of the local catchment.

Contractor
A contractor is an employee of a company contracted by the employer to do work on its behalf and under its control with respect to location, work practices and application of health and safety standards.

COO
Chief Operating Officer.

CTO
Chief Technical Officer.

CuEq
CuEq represents the payable copper equivalent production in kilotonnes and is calculated as the volume of each metal multiplied by the average metal price divided by the average copper price for the year in question.

Decarbonisation

Avoiding or reducing the greenhouse gas emissions associated with an activity.

Dewatering

Dewatering is the interception and removal of water from operational areas.

Emissions-limiting regulations

Regulations intended to limit or reduce emissions directly, such as cap-and-trade schemes, carbon tax/fee systems, and other emissions control (for example, command-and-control approach) and permit based mechanisms.

Employee

Any person in full-time, part-time or casual employment engaged by South32 on a temporary or permanent basis pursuant to a contract of service.

Energy attributes

Energy attributes represent information about the energy generated, such as its GHG emissions factor, but not the energy itself. Attributes may be conveyed in the form of certificates, tags, credits, generator declarations or other contractual instruments.

Energy coal

Used as a fuel source in electrical power generation, cement manufacture and various industrial applications. Energy coal may also be referred to as steaming or thermal coal.

Energy consumption

Energy consumed where we have operational control includes fuel consumed for non-combustion and combustion activities, regardless of the use, i.e. stationary or mobile purposes. Where energy is consumed to generate a secondary energy stream (for example electricity generation or transfer of unprocessed natural gas to natural gas ready for distribution), only the primary energy consumption is reported.

ESD

Enterprise and Supplier Development.

ESG

Environmental, social and governance.

EthicsPoint

A 24/7 confidential reporting hotline that is serviced by an independent provider.

European Union Carbon Border Adjustment Mechanism (EU CBAM)

Carbon tariff on carbon intensive products, such as aluminium, steel, cement and some electricity imported to the European Union.

Fatality

A health or safety event where an injury or occupational illness has caused the death of one or more person(s).

Firming

Firming refers to maintaining the output from an intermittent power source for a required length of time to ensure enough energy is available to meet demand.

FPIC

Free, prior and informed consent.

Fugitive emissions

Fugitive emissions are losses, leaks and other releases of gases such as methane, perfluorocarbons and carbon dioxide (CO_2) to the atmosphere.

FX

Foreign exchange.

FYXX

Refers to the financial year ending 30 June 20XX, where XX is the two-digit number for the year.

GEMCO

Groote Eylandt Mining Company.

GHG

Greenhouse gas.

GHG emissions intensity

Greehouse gas (GHG) emissions (Scopes 1 and 2) divided by tonne of saleable product (t CO_2-e / t).

GHG Protocol

World Resources Institute and World Business Council for Sustainable Development Greenhouse Gas Protocol. A globally recognised framework for measuring and managing greenhouse gas emissions.

GISTM

Global Industry Standard on Tailings Management.

Global Reporting Initiative (GRI)

GRI is an international independent organisation that has established an international framework and standards for sustainability reporting. South32 prepares our Group-level annual Sustainable Development Report in accordance with the GRI Sustainability Reporting Standards.

Goal

The use of this term in the context of climate change in this report means 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.

Greenfield

An exploration or development project that refers to a new venture or operation, without any association or proximity to a current operation.

Greenhouse gas (GHG) emissions

For our reporting purposes, GHG emissions are the combined anthropogenic emissions of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). They are measured in carbon dioxide equivalent (CO_2-e). Hydrofluorocarbons (HFCs) GHG emissions are currently not relevant for our reporting purposes.

– Scope 1 emissions - GHG emissions from our own operations, including the electricity we generate at our sites.
– Scope 2 emissions - Indirect GHG emissions from the generation of purchased electricity.
– Scope 3 emissions - GHG emissions in the value chain.

Gross Domestic Product (GDP)

Total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

Hazard

Something that has the potential to cause harm, ill health or injury, or damage to property, plant, or the environment.

HMM

Hotazel Manganese Mines.

HRIAs

Human Rights Impact Assessments.

HRRSAs

Human Rights Risk Self-assessments.

Human Rights

Human rights are the universal and inalienable rights and freedoms that every person is entitled to regardless of race, sex, nationality, ethnicity, language, religion or any other status. Human rights recognise the inherent value of each person, based on principles of dignity, equality and respect. We are committed to respecting all internationally recognised human rights as set out in the International Bill of Human Rights (comprising the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights) and the International Labour Organization Declaration on Fundamental Principles and Rights at Work.

ICMM

ICMM, previously referred to as the International Council on Mining and Metals, is an international organisation that leads through collaboration to enhance the contribution of mining and metals to sustainable development. As a corporate member, South32 commits to implementing and reporting on the ICMM Mining Principles, Performance Expectations and mandatory requirements set out in the Position Statements, which define environmental, social and governance requirements.

IMC

Illawarra Metallurgical Coal.

Indigenous, Traditional and Tribal Peoples

We use the defined term 'Indigenous, Traditional and Tribal Peoples' as per the definition and guidance set out in the Indigenous and Tribal Peoples Convention, 1989 (No. 169). We use this term inclusively to encompass the diversity of worldwide Indigenous, Traditional and Tribal Peoples, including but not limited to First Nations, Native Americans, Traditional Owners, Aboriginal and Torres Strait Islander Peoples and other land-connected communities. We recognise that no single definition can fully capture the diversity of Indigenous, Traditional and Tribal Peoples.

Injury

An occupational injury occurs during a single work shift or a single exposure to an agent(s) causing an acute toxic effect, which can be identified by time and place resulting from direct contact with an object following an instantaneous event. Examples include cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipping tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical or radiation burn. Sprain and strain injuries to muscles, joints and connective tissue are classified as injuries when they result from a slip, trip, fall or other similar accidents.

Intergovernmental Panel on Climate Change (IPCC)

The IPCC is the international body for assessing the science related to climate change. The IPCC was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Program (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

International Financial Reporting Standards (IFRS)

Accounting standards as issued by the IASB (International Accounting Standards Board).

Just transition

The concept of a just transition reflects the imperative of managing the social impacts, risks and opportunities of the transition to a low-carbon world. It is an approach to decarbonisation that seeks to centre the interests of those that are most affected by it, including workers, communities, and suppliers of goods and services.

Landholdings

Total land owned, leased or managed by South32 at the time of reporting. It includes quarries, ports, load-out facilities, desalination plants, wind farms, lease hold land, freehold land, exploration leases, agricultural land and offshore operations.

Land classified as disturbed

Total land at the time of reporting that is physically impacted by the activities of the business (for example mining pits, quarries, waste rock dumps, tailings dams, infrastructure, building/offices, processing plants, roads and rails, camps, workshops, bore fields, water dams, drill pads, ground subsidence from underground mining that would be subject to future rehabilitation, stream diversions, topsoil stockpiles). Land disturbed excludes: a) Rehabilitated land, and b) Land disturbed by agricultural or industrial activities not related to the activities of the business but on land owned by the business and leased to third parties.

Land under active rehabilitation

Total land under active rehabilitation at the time of reporting and includes:

– Rehabilitated land where necessary treatment has been undertaken to achieve the pre-disturbance land use or an alternate land use developed in consultation with stakeholders and where no future land disturbance is planned other than maintenance activities. Regulatory approval that the rehabilitation is complete is not needed;

– Subsided land that is safe and with no further work planned other than maintenance activities; and

– Disturbed land that has approval from a regulatory authority that the infrastructure or landform doesn't require further rehabilitation (for example, stabilised mining voids, retained infrastructure such as roads, buildings).

Lead Team

All Chief positions within South32.

Life of operation plan

The life of operation plan is the long-term plan produced for each South32-operated operation, including closure and post-closure activities as applicable. Each life of operation plan includes production, operating costs, capital forecasts, a decarbonisation plan and key enabling activities, and is prepared giving consideration to sustainability-related risks and opportunities.

Local procurement

Local procurement is the direct purchase of goods and services within the local communities in which South32 operates. Suppliers are deemed as local based on their proximity to our local communities, including boundaries defined by local government areas, provinces and states.

Lost time injury

The sum of work-related (fatalities + injuries that caused permanent impairment >30 per cent of body + lost time injuries). Lost time injuries include injuries that result in one or more lost work day after the day of the event.

Lost Time Injury Frequency (LTIF)

The sum of (Lost time injuries x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Low-carbon

Refers to lower levels of GHG emissions when compared to the current state. Where used in relation to South32's products or portfolio, it refers to enhancement of existing methods, practices and technologies to substantially lower the level of embodied GHG emissions as compared to the current state.

Low-carbon aluminium

Aluminium produced in a process that results in less than 4t CO_2-e Scope 1 and Scope 2 GHG emissions per tonne of aluminium.

Lower-carbon

South32 uses this term to describe the characteristic of having lower levels of associated potential GHG emissions when compared to historical and/or current conventions or analogues, for example relating to an otherwise similar resource, process, production facility, product or service, or activity.

LTI

Long-term incentive.

Management roles

Management roles are leaders with an identified job grading of 13 or higher based on the requirements of their role.

Material sustainability topic

Topic that reflects a reporting organisation's significant economic, environmental, and social impacts or that substantively influences the assessments and decisions of stakeholders.

MCA

Minerals Council of Australia.

Metallurgical coal

A broader term than coking coal that includes all coals used in steelmaking, such as coal used for the pulverised coal injection.

Modern slavery

The term modern slavery is used to describe situations where coercion, threats or deception are used to exploit victims and undermine or deprive them of their freedom. As defined by the *Australian Modern Slavery Act 2018 (Cth)* modern slavery includes eight types of serious exploitation: trafficking in persons; slavery; servitude; forced marriage; forced labour; debt bondage; deceptive recruiting for labour or services; and the worst forms of child labour. The worst forms of child labour means situations where children are subjected to slavery or similar practices, or engaged in hazardous work.

MRN

Mineração Rio do Norte.

Nationally determined contributions

Countries' self-defined national climate pledges under the Paris Agreement, detailing what they will do to help hold global warming to well below 2 °C above pre-industrial levels and pursue efforts to limit the increase to 1.5 °C.

Nature positive

A high-level goal and concept describing a future state of nature (e.g., biodiversity, ecosystem services and natural capital) that is greater than the current state.

Near miss

An event that that does not result in any injury, illness, damage, or other loss but had the clear potential to do so.

Energy exchange is not a requirement, thus when a rule or control is breached it would be considered a near miss if it had a clear potential to result in undesirable consequences (e.g. people were in the line of fire for a safety-related event).

Net gain

The point at which impacts on biodiversity and ecosystem services are outweighed by measures taken according to the mitigation hierarchy, so that a net gain results.

Net zero

Net zero greenhouse gas emissions are reached when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

No net loss

No net loss is a goal for a development project/activity in which the impacts on biodiversity it causes are balanced or outweighed by measures taken so that no loss remains. The outcome is enabled through the application of the biodiversity mitigation hierarchy to avoid, minimise and mitigate negative impacts, rehabilitate or restore affected areas, and offset residual impacts.

NO_x

Nitrogen oxides.

Non-operated joint ventures

Operations which are not wholly owned by South32 Limited or its subsidiaries and for which South32 does not manage the operation, being Brazil Alumina, Brazil Aluminium, Sierra Gorda S.C.M, AmblerMetals, Mineração Rio do Norte S.A (MRN) and Port Kembla Coal Terminal (PKCT). Details of South32's ownership interest can be found on page 79 to 80 of this report.

Occupational Exposure Limit (OEL)

The concentration of a substance or agent, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers.

Occupational illness

An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused or aggravated by exposures to factors associated with employment. It includes acute or chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact.

Operational GHG emissions

Scope 1 and 2 GHG emissions from our operated assets.

Operated joint ventures

Operations which are not wholly owned by South32 Limited or its subsidiaries and for which South32 manages the operation, being, Australia Manganese, South Africa Manganese, Mozal Aluminium, Eagle Downs Metallurgical Coal and Chita Valley. Details of South32's ownership interest can be found on page 79 to 80 of this report, except for Chita Valley in which a 50.1% interest is held.

Operational Leadership Team

All General Managers and Managers reporting to Vice President Operations including Functional Managers such as Human Resources, Finance and Supply, etc. (limited to one per function).

Operational water balance

An approach used to measure volumes of water entering, used/reused/ recycled within, and leaving the operational water system to inform and manage the operational water demand.

Operational water efficiency

Percentage of water used for operational activities which is reused/recycled water. Calculated as the sum of reuse and recycled water divided by the sum of water used for operational activities.

Our people

As defined in our Code of Business Conduct, our people includes South32 Directors, executive management, employees and contractor staff.

Paris Agreement

A legally binding international treaty on climate change that aims to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

Physical climate risk

Physical climate risks are driven or intensified by weather, climate variability or climate change. They include acute risks, resulting from increased frequency or severity of extreme weather events (e.g., drought or flood events) and chronic risks, resulting from longer-term changes in climate patterns (e.g., sustained higher temperatures, sea level rise).

PICC

Physical impacts of climate change.

RAC

Risk and Audit Committee.

RAP

Reconciliation Action Plan.

Recordable Illnesses

The sum of work-related (fatalities + illnesses that caused permanent impairment >30 per cent of body + lost time illnesses + restricted work illnesses + medical treatment illnesses).

Recordable injuries

The sum of work-related (fatalities + injuries that caused permanent impairment >30 per cent of body + lost time injuries + restricted work injuries + medical treatment injuries).

Reused / recycled water

Water that has been used in an operational task and is recovered and used again in an operational task, either without (reuse) or with (recycle) treatment.

SAEC

South Africa Energy Coal.

'Safety guarantee'

Our 'safety guarantee' is our internal approach to creating a sense of chronic unease to enhance our safety culture. Every day, we ask our people to reflect on whether they can guarantee both their safety and that of their colleagues when executing their role. If the answer is no, then the challenge is to stop and ask what would need to be done differently to provide that guarantee.

SASB

Sustainability Accounting Standards Board.

Scope 1 emissions

GHG emissions from our own operations, including the electricity we generate at our sites.

Scope 2 emissions

Indirect GHG emissions from the generation of purchased electricity.

Scope 3 emissions

All other indirect GHG emissions not included in Scope 2 emissions that occur in our value chain.

Senior Leaders

Comprised of Operational Leadership Team, Senior Leadership Team and Lead Team members.

Senior Leadership Team

Presidents and Vice Presidents reporting to members of the South32 Lead Team and the Company Secretary.

Significant event

Any event with Actual or Potential Health Safety Severity of PL4 (Potential for Fatality) or above.

SMMEs

Small, medium and micro enterprises.

Social investment

Contributions made to support communities where we operate or have an interest. Our contributions to community programs comprise direct investment (including Enterprise Development), in-kind support and administrative costs.

Source Pathway Receptor

Process to identify air emission sources and assess potential impacts. Begins with locating where the air emissions originate (source), followed by assessing how they can travel through the environment (pathway), then consideration is given to who or what could be affected (receptor), being workers, communities and the environment.

South West Interconnected System

The electricity grid in the south-west region of Western Australia comprising transmission, owned by the Western Australian Government, and electricity generators. It is not connected to other large Australian grids.

South32, South32 Group or Group

Refers to South32 Limited and its controlled entities and joint arrangements, unless otherwise stated.

SOx

Sulphur oxides.

STI

Short-term incentive.

Supply chain

The global network of suppliers that support South32's operations, development options and exploration programs through the flow of goods, services and information.

Sustainability, sustainable development, sustainably, sustainable

Our approach to sustainability aims to balance environmental, social and economic considerations in a way that creates enduring value for our stakeholders. We recognise that in many cases these considerations will be interdependent or may compete or conflict with each other. In delivering our strategy we aim to understand and balance the environmental, social and economic impacts of our business in a way that seeks to create value overall. References to sustainability (including sustainable development and sustainably) in the suite or other disclosures do not mean that there will be no adverse impact, or an absolute outcome, in any one area.

Tailings

The left-over materials that remain after the target mineral is extracted from ore.

Target

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.

Task Force on Climate-Related Financial Disclosures (TCFD)

The TCFD developed a framework for climate-related financial disclosures, including a set of recommended disclosures structured around the four recommendation pillars of governance, strategy, risk management, and metrics and targets. The TCFD was disbanded in October 2023 and the International Sustainability Standards Board will monitor progress on the state of climate-related financial disclosures by companies.

Taskforce on Nature-Related Financial Disclosures (TNFD)

The TNFD has developed a framework for nature-related financial disclosures, including a set of disclosure recommendations structured around the four recommendation pillars of governance, strategy, risk and impact management, and metrics and targets.

TEMCO

Tasmanian Electro Metallurgical Company.

Total disturbed landholdings

Represents the total landholdings which have been disturbed by our operations over time, and is the sum of land classified as disturbed and land that is under active rehabilitation.

Total Recordable Illness Frequency (TRILF)

(The sum of recordable illnesses x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Recordable Injury Frequency (TRIF)

(The sum of recordable injuries x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Transformation

A national strategy in South Africa aimed at attaining national unity, promoting reconciliation through negotiated settlement and non-racism.

OVERVIEW   PROTECTING AND
RESPECTING OUR PEOPLE   DELIVERING VALUE
TO SOCIETY   OPERATING ETHICALLY
AND RESPONSIBLY   MANAGING OUR
ENVIRONMENTAL IMPACT   ADDRESSING
CLIMATE CHANGE   APPENDICES

Transition materials

CA100+ Net Zero Standard for Diversified Mining, defines transition materials into two categories which include Key Transition Materials (KTMs) and Other Transition Materials (OTMs). KTMs include lithium, copper, nickel, cobalt for example, while OTMs include aluminium, alumina and bauxite, silver, zinc, manganese and lead for example (both lists are not exhaustive).

Transition risks

The risks associated with changes in policy, technology and market behaviours in the transition to a low-carbon economy.

TSF

Tailings Storage Facility.

UN SDGs

United Nations Sustainable Development Goals.

Underlying EBITDA

Underlying EBIT before underlying depreciation and amortisation.

United Nations Global Compact (UNGC)

The United Nations Global Compact is a call to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance social goals. South32 is an active member of the UNGC since 2019.

Value chain

The interrelated activities and systems involving the full lifecycle and added value of our products and processes, in which South32 explore and develop our commodities, through to processing, refining and smelting, and finally to sale and distribution to customers and closure of the mines.

VAM

Ventilation Air Methane. Methane released by coal mining that is extracted by large scale ventilation systems and expelled to the atmosphere to maintain safe working conditions.

VPSHR

Voluntary Principles on Security and Human Rights.

Water consumption

Water that is removed by evaporation, entrainment (in product or waste) or other losses, and not released back to surface water, groundwater, seawater or a third party.

Water outputs/discharge

Water that is released from the operational water system through discharge back to the water environment or piping to third parties, and/ or through other outputs, including water consumed (removed by evaporation, entrainment in product, waste or other losses) in an operational task or activity.

Water risk

Water risk is the possibility of an entity experiencing a water-related challenge (e.g. water scarcity, water stress, flooding, infrastructure decay, drought). The extent of risk is a function of the likelihood of a specific challenge occurring and the severity of the challenge's impact. The severity of impact itself depends on the intensity of the challenge, as well as the vulnerability of the actor.

Water scarcity

Water scarcity refers to the lack of sufficient available water to meet the water usage demands of the region. This can be from the lack of physical water and the lack of financial means to gain access to water.

Water to tasks

The total flow of water to a task. A task is a set of operational activities that use water.

Water inputs/withdrawal

Water that is drawn from the environment (surface water, groundwater or seawater) or purchased from third parties, for use in a task or activity.

SOUTH32