

# Climate

The commodities we produce are essential to the global energy transition. As demand for these materials grows, so too does the importance of ensuring that climate-related risks and opportunities are appropriately addressed across our business.

## 2025 at a glance

Gross Scope 1 and 2 GHG emissions (adjusted equity basis)

**31.5 Mt CO<sub>2</sub>e**  
(2024: 31.7 Mt CO<sub>2</sub>e)

Electricity from renewable sources

**77%**  
(2024: 78%)

Scope 3 GHG emissions

**575.7 Mt CO<sub>2</sub>e**  
(2024: 569.8 Mt CO<sub>2</sub>e)

Total decarbonisation spend

**\$612m**  
(2024: \$589m)

Delivering on our climate commitments is central to strengthening resilience and economic performance as we work to become the most valued metals and mining company. Our Climate Action Plan (CAP) remains at the heart of this mission, guiding our strategy to grow production of materials essential for the energy transition, decarbonise our operations, and support our partners in reducing value chain emissions. It also reflects our commitment to a just transition for the communities where we work and to grow responsibly in a changing world.

Our updated 2025 CAP provides an overview of our climate change strategy, commitments, targets, and forward-looking plans. It builds on our 2022 CAP and reflects our commitment to transparency, disciplined investment and long-term value creation. The 2025 CAP was approved by shareholders at our 2025 AGM and is integrated into our *2024 Annual Report*. It is also available online at [riotinto.com/climatereporting](http://riotinto.com/climatereporting).

This section of the annual report provides an update on our progress against the 2025 CAP. It outlines the actions we have taken across our operations and value chains, the emissions reductions achieved, and the abatement projects we have committed to.

The climate change targets and commitments published in our 2025 CAP are unchanged. Our ambition is to grow total production by ~3% per year on a copper equivalent basis<sup>1</sup>, while targeting a 50% reduction in our net Scope 1 and 2 emissions by 2030 (relative to 2018 levels) and reaching net zero by 2050.

We have updated our capital expenditure guidance to principally reflect the slower pace of commercially viable technology development that we, our industry, and the world has experienced in hard-to-abate sectors. Pre-2030 abatement is therefore expected to be predominantly delivered through low-capital solutions and proven technologies.

Our pathway to a 50% reduction in our Scope 1 and 2 emissions by 2030 primarily relies on commercially available solutions such as renewable energy contracts and is contingent on advancing viable solutions for our Pacific Aluminium smelters (BSL and Tomago), where discussions are progressing but are finely balanced. To support this, we are actively working with the federal and state Australian governments to secure a long-term, low-carbon future for the aluminium industry, with discussions ongoing. Any delay in concluding these discussions or delivering these projects may impact our ability to meet our 2030 target within this decade.

At the same time, we are collaborating with industry and government partners on pilot and demonstration technologies expected to deliver significant emissions reductions beyond 2030, including ELYSISTM, hydrogen calcination, battery electric haul trucks and double digestion. These projects are progressing and we hope they are able to meaningfully contribute to long-term decarbonisation, though the pace of global technology development and the need for commercial viability remain essential considerations. Further details on our abatement pathways and our full CAP progress report can be found on pages 58–72.

Looking ahead, we will continue working with partners and governments to advance and deploy transformational technologies and solutions. Our approach will remain disciplined, balancing innovation with commercial feasibility, and we will support these efforts through capital and operational expenditure. Addressing climate risks and opportunities is critical to maintaining resilience, creating value, and meeting the expectations of our stakeholders. We will continue to work towards delivering our 2030 and 2050 emissions targets through commercially viable solutions, while supporting regional development, a just and orderly transition, and the production of materials vital for the global energy transition.

## Our reporting framework

Under Chapter 2M of the Australian Corporations Act 2001, our climate reporting complies with the Australian Accounting Standards Board (AASB)'s S2 Climate-related Disclosures, which is the mandatory Australian Sustainability Reporting Standard (ASRS). It also meets UK Listing Rule 6.6.6R and the Climate-related Financial Disclosure (CFD) Regulations 2022. It is consistent with all 11 Task Force on Climate-related Financial Disclosures (TCFD) recommendations and all 8 CFD requirements. Our reporting is also guided by the Transition Plan Taskforce (TPT) Framework and the CA100+ Net Zero Company Benchmark and their Standard for Diversified Mining.

 Our full Directors' declaration on climate can be found on page 71.

1. Ambition for compound annual growth rate (CAGR) for copper equivalent production is from 2024 to 2030F.

## Preparing for the impact of climate change

Our portfolio is built around the materials essential for a low-carbon future. Copper, lithium, aluminium and iron ore are fundamental to renewable energy infrastructure, electric vehicles, and energy storage solutions. The energy transition will drive significant demand for these critical minerals and our ambition remains to grow their production.

Although climate change presents clear growth opportunities for our commodities, it also presents physical and transition risks to our portfolio. The transition to a low-carbon economy impacts the commodities we produce and how they are processed in our value chains – particularly for carbon-intensive steel and aluminium.

Carbon pricing mechanisms currently apply to parts of our operations and to some of our customers. If climate policy ambition increases globally, this may affect our operational costs, market dynamics and technology development.

Physical risks such as extreme weather events, rising sea levels and temperature fluctuations can disrupt our supply chains, damage infrastructure and impact the availability and cost of raw materials.

We use scenarios to identify and assess risks and opportunities, including those related to climate change, that may affect our business in the short, medium and long term. The impact of climate change is recognised as a principal risk within our Group risk management framework and underpins our overall strategy.

Our CAP is structured to address these risks alongside other material climate change-related physical and transition risks that contribute to our principal risk. A summary of the material climate change-related risks and opportunities (CROs) relevant to our business is set out below.

Effectively managing these CROs is essential to safeguarding our operational resilience, sustaining stakeholder trust, and positioning ourselves for long-term success in a low-carbon economy.

Coordinated global action, supported by enabling policy frameworks, clean energy infrastructure, and technological innovation, is required to achieve a net zero future. Our climate transition plan is grounded in a clear understanding of the associated challenges and opportunities.

While business plays a critical role in managing climate risks, government support is required to accelerate progress through targeted policies, streamlined regulations, and incentives that support early movers and industrial transformation. Measures such as tax credits, efficient permitting systems, and public-private research and development partnerships are essential to unlock low-emissions technologies, particularly in hard-to-abate sectors.

### Climate-related risks and opportunities

### Actions underway

Energy transition commodity demand	<p>Customer interest in materials required for the energy transition is accelerating demand for critical minerals such as copper, aluminium and lithium. This presents an opportunity to strengthen our portfolio and capture growth in markets prioritising decarbonisation.</p>	<ul style="list-style-type: none"> <li>Grow in production of materials essential for the energy transition</li> </ul>
Global technology development	<p>Low-emissions technologies will support emissions abatement, improve efficiency, and enhance competitiveness. However, uncertainty in deploying breakthrough technologies at scale creates risk, as hard-to-abate emissions could remain exposed to carbon pricing for an extended period. Solutions such as ELYSIS™ and hydrogen-based processing offer potential to address these emissions, but scaling at pace in a cost competitive manner is critical to meet long-term goals.</p>	<ul style="list-style-type: none"> <li>Develop low-emissions technologies for minerals and metals processing, refining and smelting</li> <li>Transition to low-emissions mining vehicles or fuel supply</li> </ul>
Climate policy and regulation	<p>Increasingly stringent and uneven climate change-related policies are driving higher compliance costs and impacting competitiveness, particularly in jurisdictions where carbon pricing mechanisms are in place. Our reliance on fossil fuels exposes us to rising liabilities and operational costs as emissions frameworks tighten.</p>	<ul style="list-style-type: none"> <li>Reduce emissions from our own operations</li> <li>Partner to decarbonise our value chains</li> <li>Actively engage on climate change and energy policy aligned with net zero ambition</li> <li>Increase renewable power</li> <li>Invest in a portfolio of high-integrity voluntary and compliance carbon credits</li> </ul>
Social licence and ability to access ore bodies	<p>Decarbonisation, and meeting stakeholder expectations for a just transition, are increasingly becoming a prerequisite for securing approvals and maintaining stakeholder trust. Failure to act could result in project delays, increased costs and reduced access to resources as expectations for environmental and social performance intensify.</p>	<ul style="list-style-type: none"> <li>Community engagement and social investment</li> <li>Embed just transition principles in our decarbonisation strategy</li> </ul>
Acute and chronic physical risks	<p>Extreme heat: rising temperatures and frequent heatwaves impact worker safety, reduce productivity, increase cooling costs and accelerate infrastructure wear.</p> <p>Extreme rainfall, flooding, sea level rise and cyclones: severe weather events and coastal flooding damage infrastructure, disrupt operations and supply chains and impact closure planning due to erosion, instability and asset inundation.</p> <p>Water scarcity, drought and wildfire: dry conditions reduce water availability for operations, increase competition for resources, raise wildfire risks to infrastructure and safety and impact closure planning.</p>	<ul style="list-style-type: none"> <li>Enhance our physical resilience to a changing climate, supporting the viability of our assets, our people and communities</li> </ul>

## Scope 1 and 2 emissions: Reduce emissions from our own operations

We aim to reduce our net Scope 1 and 2 emissions by 50% by 2030 (relative to 2018 levels), and to reach net zero by 2050.

### Our approach to emissions reduction

We are committed to reducing our operational greenhouse gas emissions in line with the principles of the mitigation hierarchy, which prioritises direct abatement of emissions over the use of offsets and other non-direct abatement tools.

We aim to reduce our net Scope 1 and 2 emissions by 50% by 2030, relative to a 2018 baseline, and limit the contribution of carbon credits to 10% of that baseline. To ensure comparability over time and reflect genuine progress, we adjust our 2018 baseline to exclude emissions reductions resulting from divestments and to incorporate emissions associated with acquisitions.

Our decarbonisation efforts are focused on reducing operational emissions from electricity use by deploying renewable electricity solutions, fuel consumption by transitioning mining operations away from diesel, and reducing process heat emissions in smelting and refining through energy efficiency improvements and emerging technologies.

While our asset portfolio has evolved as we shift towards transition materials, the emissions profile by commodity has remained relatively stable. Approximately 77% of our Scope 1 and 2 emissions originate from our Aluminium & Lithium business which is highly energy-intensive.

### Reduction progress and challenges

Our 2025 gross Scope 1 and 2 greenhouse gas emissions (adjusted equity basis) were 31.5 Mt CO<sub>2</sub>e, a reduction of 0.2 Mt CO<sub>2</sub>e from the previous year. Reductions were driven by the increased use of renewable diesel at Kennecott offset by higher emissions from increased production, particularly in iron ore and copper.

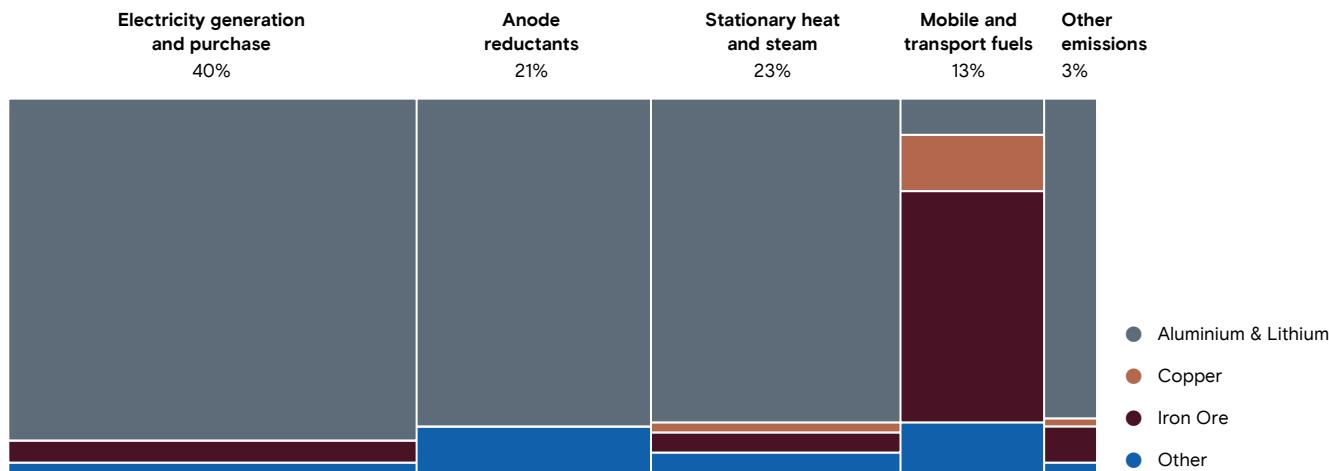
As of 2025, our gross adjusted Scope 1 and 2 emissions are 14% below 2018 levels. After applying high-integrity offsets, our net adjusted Scope 1 and 2 emissions are 17% below our baseline. Overall reductions were primarily achieved through renewable energy contracts including the use of unbundled renewable energy certificates in regions where new energy is under development.

We retired approximately 1.01 million Australian Carbon Credit Units (ACCUs) to meet our 2024 Safeguard Mechanism compliance obligations, compared to the anticipated 1.1 million ACCUs.

Final safeguard liability and surrendered ACCUs for financial years 2024-2025 were less than the planned reported values, therefore the net emissions number and carbon credits have been restated.

### 2025 gross Scope 1 & 2 GHG emissions

(31.5 Mt CO<sub>2</sub>e, adjusted equity basis)



For 2025, we expect to retire approximately 1.17 million ACCUs to meet our compliance obligations. ACCUs retired under the Safeguard Mechanism are counted toward our net emissions number after passing our due diligence assessment, including meeting our high-integrity criteria. This information is available at [riotinto.com/naturesolutions](http://riotinto.com/naturesolutions).

Delivering reductions in absolute emissions requires additional abatement to cover organic growth from production growth and increasing work indexes. Production growth can come through brownfield expansions such as in the Pilbara or greenfield developments like Simandou.

Work index growth, a measure of productivity that is typical for the mining sector, is a result of our existing mining operations facing longer haul distances and declining ore grades, requiring additional energy to achieve the same level of production output.

Delays may arise from engineering and construction challenges, the pace of technology development, and the need to balance decarbonisation with community and stakeholder expectations as well as disciplined capital allocation.

Despite this, we are making measurable progress towards achieving our targets and investing towards future abatement.

### Looking ahead

We recognise that abatement progress will not be linear. The biggest driver of this is the repowering of the Pacific Aluminium operations, our largest source of emissions, and planned for the end of the decade. The schedule is contingent on finalising full competitive solutions for the smelters. Discussions with state and federal governments and energy contracting partners are ongoing.

In response to these challenges, we continue to work closely with partners, governments, and other stakeholders to advance abatement opportunities.

Our strategy also includes advocating for climate action-aligned policy, enhancing resilience to physical climate change risks, and embedding just transition principles in our engagement with communities and host countries.

See our roadmap to 2030 and 2050 on pages 56 and 57 for more detail.

## Our roadmap to 2030

Between now and 2030, the most significant opportunities to reduce our Scope 1 and 2 emissions are to switch the electricity we generate and purchase to renewables and to address process heat emissions from our alumina refineries.

Our 2030 pathway prioritises proven, cost-effective solutions such as power purchase agreements (PPAs) and other structural abatement measures, while using unbundled renewable energy certificates (RECs) as a transitional option in the short term.

Our single largest lever to meet our 2030 target of a 50% reduction is repowering our Boyne and Tomago aluminium smelters in our Pacific Aluminium Operations portfolio, which together account for one quarter of our emissions and are critical to our decarbonisation pathway.

Beyond smelter repowering, we are progressing other key projects in our pipeline, including renewable electricity contracts, and processing heat reduction initiatives such as Queensland Alumina Limited's double digestion project, and the use of biocarbon. These efforts are essential to meeting our 2030 target while accommodating organic growth, which represents around 1.5 Mt CO<sub>2</sub>e against our baseline.

We also expect to use high-quality carbon credits from nature-based solutions towards our 2030 Scope 1 and 2 net emissions target, limiting their contribution to 10% of our 2018 baseline emissions. Our emissions reporting will continue to transparently distinguish between our gross operational emissions and net emissions for the Group, and disclose the volume and type of carbon credits retired, in line with transparency standards.

Further required details on our methodology and approach are set out in the Climate-related metrics and data section on pages 81–86. Additional supporting material is available in the *Scope 1, 2 and 3 Emissions Calculation and Climate Methodology – 2025 Addendum*, available at [riotinto.com/climatereporting](http://riotinto.com/climatereporting) (pages 1–3).

### Repowering Pacific Aluminium Operations

The repowering of Boyne Smelter (BSL) is an opportunity to showcase how a large-scale industrial asset can transition to a renewable energy solution. We have already contracted 2.7 GW of renewable generation and 540 MW of battery storage through power purchase agreements (PPAs), demonstrating our commitment to Boyne Smelter's future. Currently, all contracted projects remain in project development phases, and we continue to monitor them as they progress towards final investment decisions. Once operational, the contracted projects could supply approximately 80% of BSL's annual average electricity demand, enabling a projected 70% reduction in the smelter's Scope 1 and 2 emissions.

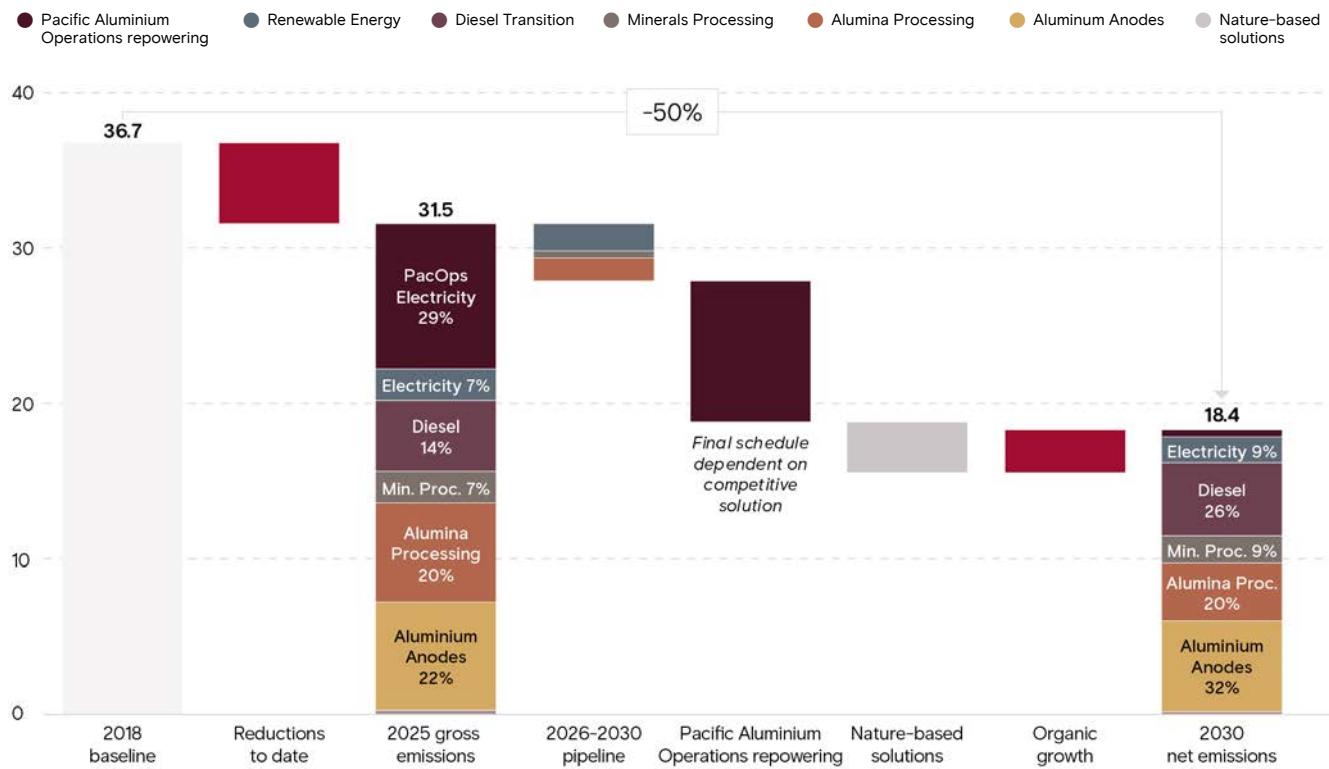
Securing an economically viable future for BSL still requires contracting additional energy and storage, as well as support from state and federal governments. We are continuing to actively engage with both state and federal governments.

Earlier this year, we announced that Tomago faced the risk of closure before 2030 due to challenges in securing a competitive energy solution after its current electricity contract expires. Following constructive engagement, Tomago Aluminium has welcomed a joint announcement by the federal and New South Wales Governments to explore a new pathway for reliable, long-term, and competitively-priced energy beyond 2028, underscoring a shared commitment to maintaining local manufacturing capability in Australia.

Repowering is not a simple task. Whilst we are working hard to secure our pathway to repower both smelters before 2030, delivering the solutions successfully requires significant transmission infrastructure, supportive policy frameworks and a competitive renewable energy investment environment. Each of these factors have associated risks which, if realised, may impact our ability to implement the repowering solution, potentially leading to delays in emissions reduction.

### Pathway to 2030 target

(Mt CO<sub>2</sub>e, adjusted equity basis)



Note: The pathway to 2030 is contingent on individual project investment decisions as well as obtaining necessary government and regulatory approvals.

## Our roadmap to 2050

We have a roadmap to achieve net zero operational emissions by 2050. This is a significant challenge for Rio Tinto, our industry and the world, reflecting the need to replace long-established industrial processes with new technologies that are not yet proven or available at industrial scale. Addressing this challenge will require collaboration and supportive policy settings to enable the development and future deployment of low-emissions technologies.

This next phase of decarbonisation is expected to rely on more capital-intensive technologies with higher marginal abatement costs. These initiatives are focused on our most challenging sources of operational emissions, and while outcomes remain uncertain, we continue to support their development through targeted investment and collaboration. Many of these technologies remain at pilot or demonstration stage and are not yet ready for deployment at industrial scale. As these solutions develop, we will continue to consider their commercial viability ahead of any future adoption.

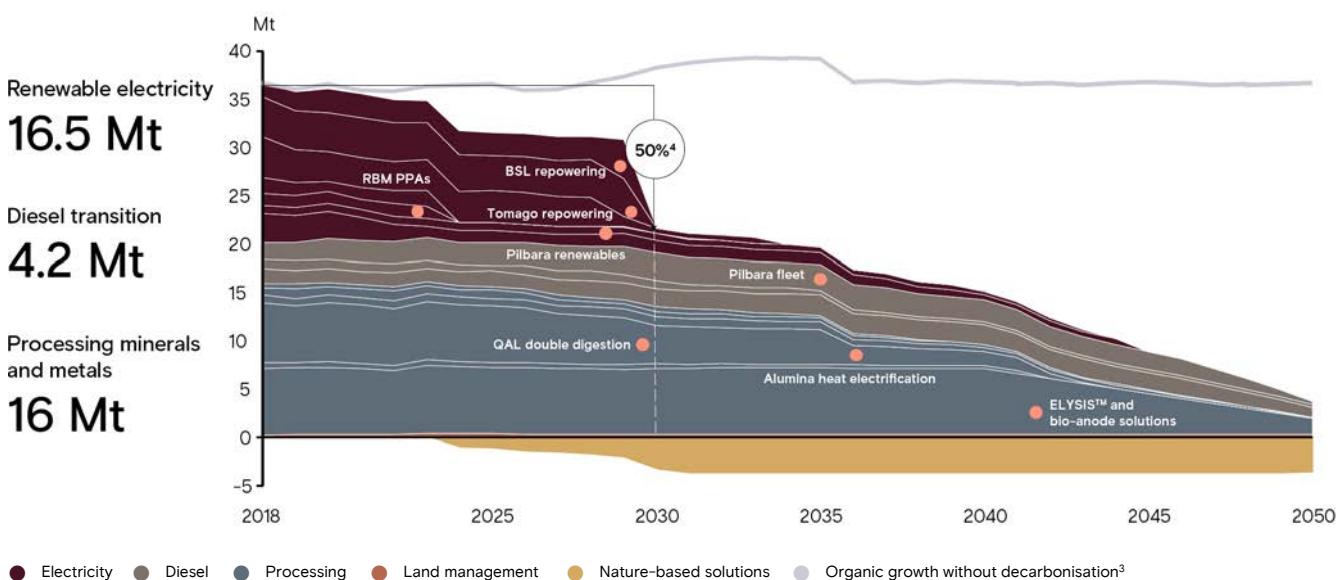
We are progressing a range of pilot and demonstration projects, working in partnership with original equipment manufacturers (OEMs), governments and research organisations. In aluminium, we are advancing ELYSIS™, a breakthrough technology designed to eliminate all direct greenhouse gas emissions from the smelting process. In alumina refining, we are piloting hydrogen-based process heat through the Yarwun Hydrogen Calcination Pilot in Queensland. If successful, this could replace natural gas with green hydrogen. We are also undertaking fleet electrification trials across parts of our operations.

Our capital allocation and guidance for decarbonisation has been revised to reflect the technical maturity, feasibility, and progress of projects to date. Investment continues to prioritise options with a credible pathway to scale, while supporting targeted pilot and demonstration activities to develop future abatement solutions.

However, these breakthroughs may not all turn out to be scalable and competitively deployable. Given the uncertain timing of suitable, proven and commercial-scale technology, our roadmap to 2050 allows for future opportunities to be defined post-2040.

### Group decarbonisation pathway<sup>1,2</sup>

(Mt CO<sub>2</sub>e, adjusted equity basis)



1. Totals shown represent 2018 baseline emissions, adjusted in 2025 to reflect QAL participation changes due to tolling arrangements (80% to 100%), as well as other equity share changes and acquisitions.

2. The net zero Pathway is contingent on individual project investment decisions as well as obtaining necessary government and regulatory approvals.

3. Baseline emissions extended post-2040 using assumed asset life extensions.

4. Represents net emissions reduction vs 2018 baseline.

### Carbon removals

By 2050, small sources of hard-to-abate emissions may remain, and we will therefore rely on some carbon removals to achieve net zero. This may be through natural or technological removals and storage.

In the short to medium term, we are investing in high-integrity nature-based solutions in the regions where we operate, and will voluntarily retire carbon credits to complement other decarbonisation investments. In the medium to long term, technological removals may offer a more permanent solution to any remaining emissions from fossil fuel consumption. We are also exploring the potential of carbon capture and mineralisation technologies.

In early 2025, we signed a partnership agreement with Hydro (Norway) to identify and evaluate carbon capture technologies for future implementation in the aluminium smelting process.

Separately, in partnership with Carbfix, we are exploring a pilot project to capture carbon dioxide (CO<sub>2</sub>) from the atmosphere and convert it to solid minerals before storing it underground at our ISAL smelter using their technology. The project is in its early stages and would involve binding up to 200 tonnes of CO<sub>2</sub> over a 12-month period, with system delivery targeted for early 2027. If successful, the project could pave the way for further trials to capture and store emissions from the aluminium plant itself. Carbfix's process converts CO<sub>2</sub> into solid minerals in volcanic rock, providing a safe and permanent storage solution.

This initiative represents an important step toward developing innovative approaches to reduce emissions and support long-term climate goals.

## Capital allocation and investment framework

### Group capital allocation

In the medium term, we will invest up to \$10 billion (in real terms) annually in sustaining, replacement and growth capital to ensure the continued supply of materials, including those that are essential to the energy transition. This investment underpins our commitment to meeting growing demand for critical resources while maintaining operational resilience and long-term value creation.

### Decarbonisation capital allocation

Our decarbonisation investment is derived from the Group's capital allocation framework and aligned to our 2030 Scope 1 and 2 emissions targets.

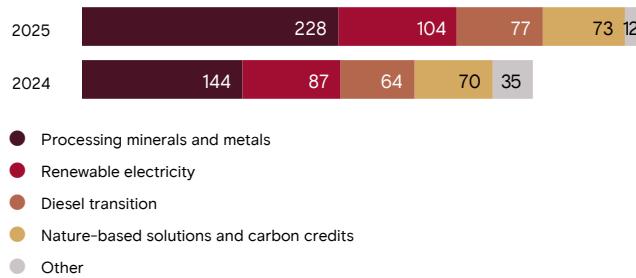
Decarbonisation investment decisions are made under a dedicated evaluation framework which considers the impact of the investment on shareholder value, asset cost base, level of emissions abatement, maturity of technology and delivery risk, competitiveness of the investment as per the marginal abatement cost curve (MACC), external benchmarks, policy context, and alternative options on the pathway to net zero. Projects are also assessed against our approach to a just transition, with the impact on employees, local communities and industry considered. Governance of decarbonisation investments depends on the nature and size of the project and is consistent with our broader investment decision-making approach.

We expect pre-2030 abatement projects predominantly to be delivered through low-capital solutions and proven technologies, while post-2030 abatement projects are generally characterised as high-cost, capital-intensive projects that require technological breakthroughs.

Our total decarbonisation spend<sup>1</sup> for 2025 was \$612 million (2024: \$589 million). This included capital expenditure, investments and carbon credits of \$182 million (2024: \$283 million), and operational expenditure of \$430 million (2024: \$306 million).

### Capital and operational expenses: Scope 1 and 2 project spend and carbon credits

\$ million



Note: The above does not represent total decarbonisation spend, as it reflects only costs related to Scope 1 and 2 project spend and carbon credits. Team costs, investments and Scope 3 expenditures are excluded. Additionally, 2024 decarbonisation spend, as presented in the graph above, has been revised to include additional relevant decarbonisation-related costs.

### 2030 decarbonisation spend and capital guidance

We have a pathway to deliver on our 2030 decarbonisation targets, supported by low-capital solutions. Our current pipeline indicates that <10% of our required abatement to 2030 will require capital expenditure.

Our updated capital expenditure forecast is now \$1-2 billion to 2030, a reduction from the previously issued range of \$5-6 billion. This includes \$0.6 billion in the period 2025-2027. The guidance includes voluntary carbon credits and investment in nature-based solutions projects but excludes the cost of carbon credits purchased for compliance purposes.

In addition to leveraging commercially available solutions, the reduction reflects the slower pace of commercially viable technology development in the hard-to-abate sector, with low-emissions technologies globally taking longer to mature than anticipated. Before large-scale deployment, these solutions must demonstrate both technical performance and commercial viability. While we have made progress through trials and development such as BlueSmelting™, hydrogen calcination, ELYSIS™, Évolys™, and battery electric haul trucks, current efforts remain focused on proving feasibility ahead of progressing industrial-scale implementation.

We will invest wisely when technology is available to support the scale of our business. As a result, major capital investment initially expected by 2030 for ELYSIS™, alumina process heat electrification, and self-generated renewable diesel expansion initiatives will be considered post-2030 when technology is available and can be commercially deployed. We remain committed to long-term emissions reductions and supporting solutions which can deliver large-scale, industrial investment and deployment.

This refined approach supports our near-term targets while preserving optionality for longer-term technological breakthroughs. It also aligns with our Group strategy of focused capital deployment – balancing stakeholder expectations, emissions reduction, capital efficiency, and commercial viability.

### Path to 2030 and beyond

While the feasibility of converting pilot projects in hard-to-abate sectors to full-scale implementation will need to be considered and aligned to the strategic needs of the Group, we recognise the importance of transformational projects and their contribution to decarbonising our operations. Although certain projects are generally expected to contribute to post-2030 abatement, research and development spend continues to be factored into our capital guidance and we will continue to assess the viability and possibility of low-emissions technologies.

Our strategy remains focused on delivering a net zero pathway that manages exposure to volatile fossil fuel prices, supports long-term energy security, maintains optionality and mitigates the cost impact of current and potential future carbon pricing.

### Decarbonisation through partnerships

While our capital allocation framework underpins the decarbonisation of our portfolio, direct capital expenditure does not necessarily correlate with emissions abatement. Our strategy leverages partnerships with energy developers, enabling a low-capex pathway through long-term PPAs. These commitments are expected to underwrite up to \$8.5 billion in competitive greenfield energy projects, subject to final approvals and successful delivery.

Delivering on our decarbonisation ambitions requires more than investment; it requires collaboration with governments, industry bodies and policy makers to ensure enabling pathways are available.

A key example is repowering our Pacific Aluminium Operations, where securing a commercially viable future for BSL still requires support from state and federal governments. We are continuing to actively engage with both, including on initiatives such as the A\$2 billion Green Aluminium Production Credit scheme announced in January 2025.

1. Decarbonisation spend refers to the total cost of delivering our global decarbonisation projects, nature-based solutions, and select Scope 3 activities. Expenditure must be incurred for decarbonisation purposes and can be either capital or operating in nature, based on financial accounting principles (whereas capital expenditure guidance relates to capital investment only). It includes costs related to the purchase of offsets, renewable energy certificates, decarbonisation team costs and external decarbonisation investments. Decarbonisation spend forms a key component of our strategy for managing climate change-related transition risks and opportunities.

## 2025 Climate Action Plan update

We continue to implement our CAP, progressing toward our 2030 target and 2050 net-zero ambition across our operations.

This section provides an overview of 3 key areas: our achievements to date, the challenges we face, and our path forward as we continue to accelerate decarbonisation across our portfolio.

Our Global Decarbonisation Programs (GDPS) target all sources of carbon emissions in our business.

These programs are complemented by investment in nature-based solutions and the purchase of high-quality carbon credits.

We recognise that technical challenges, infrastructure constraints, and the need to balance ambition with transitioning in a fair and

equitable way may cause delays. Success also depends on supportive policy and regulatory frameworks that accelerate progress toward shared net zero goals. Trials of low-emissions technologies are complex and costly, and scaling them requires incentives, streamlined systems, and collaboration with governments, technology partners and OEMs.

While the journey presents challenges, each step provides valuable lessons that strengthen our approach. We continue to apply these learnings across our portfolio and remain focused on reducing emissions, creating value, and delivering regional benefits – ensuring our transition supports strong, resilient communities.

## 2025 performance and key achievements

**Jinbi PPA:** An agreement to secure energy from a 75 MW solar farm, being developed by Yindjibarndi Energy Corporation, through the Jinbi PPA, has now been finalised. With first power expected in 2028, this project represents a new way of working for our Pilbara grid and is a landmark partnership with Traditional Owners. Located on a greenfield site within Yindjibarndi Native Title Determination Areas, the project includes a 75 MW solar array with the potential to incorporate battery energy storage systems (BESS). Subject to state agreement and joint venture partner approvals, Jinbi will connect directly to our existing transmission infrastructure, providing renewable power to support our operations. This is an important step toward integrating large-scale renewables into our network and strengthening relationships with communities.

**BSL repowering:** We have continued the progress of procuring renewable energy and storage projects to supply power to BSL beyond 2029. Finalisation of the repowering solution requires further renewable energy and storage procurement, agreement with BSL joint venture participants as to the future operating arrangements, and conclusion of support arrangements with the Queensland and Australian Governments.

In February 2025, we executed 2 hybrid services agreements with Edify Energy for the Smoky Creek and Guthrie's Gap Solar Power Stations. Together, these will form a 600 MW solar farm paired with a 2,400 MWh BESS. Under the agreements, we will purchase 90% of the electricity and battery storage capacity generated by the projects over a 20-year term. Combined with the 2.2 GW of renewable energy PPAs announced in 2024, we have contracted a total of 2.7 GW of future renewable energy capacity in Queensland. Currently, all contracted projects remain in project feasibility study phases, and we continue to monitor them as they progress towards final investment decisions and financial close. There are risks to project schedule for some projects in the renewables portfolio, which could have implications for our ability to achieve our repowering objectives ahead of 2030. Once operational, the contracted projects could supply approximately 80% of BSL's annual average electricity demand, enabling a projected 70% reduction in BSL's Scope 1 and 2 emissions.

Following the announcement of initial support arrangements with the Queensland Government in 2024, and the Australian Government's announcement of the Green Aluminium Production Credit scheme, we have continued to work collaboratively with the Queensland and Australian Governments to realise and conclude these support arrangements, where discussions are progressing but are finely balanced.

**Tomago repowering:** In December 2025 we announced that Tomago was engaging with the federal and New South Wales governments to support the provision of an internationally competitive energy supply for the smelter. The details of these arrangements remain under consideration and will be finalised if and when binding agreements are executed. The ultimate implications for the smelter, including the timing of any transition, its future emissions profile and the ability to achieve our PacOps repowering objectives ahead of 2030 remain subject to these discussions.

**Oyu Tolgoi battery swap:** We started our first trial of battery swap electric haul trucks in surface mining at the Oyu Tolgoi copper mine in Mongolia, in partnership with China's State Power Investment Corporation (SPIC) Qiyuan. The trial includes eight 91-tonne trucks supported by 13 high-capacity 800 kWh batteries, a battery swapping station, static charger and charging infrastructure. Following successful Factory Acceptance Testing and commissioning in October, the trucks will now be used for tailings storage facility construction and topsoil transportation tasks, providing us with hands-on experience operating and maintaining a complete battery electric truck and swap charging system. This marks a significant step in enabling a reduction in emissions from haulage, one of Rio Tinto's largest sources of Scope 1 and 2 emissions, while gaining operational insights into battery electric systems. The swap technology enables battery replacement in under 7 minutes, minimising downtime and enhancing efficiency. The trial will run through 2026 and inform broader adoption across our global fleet, particularly among the 100 small- to medium-class haul trucks (100-200 tonne payload).



**Évolys™:** We completed the construction and commissioning of Évolys™, our joint venture with Aymium to produce biocarbon from biomass residues. The project will assist in reducing emissions in ilmenite smelting by replacing anthracite with a sustainable alternative. Operational readiness activities are in progress and the site is now prepared for full-scale production. Évolys™ strengthens our ability to decarbonise critical minerals processing and demonstrates how innovation and partnerships can deliver low-carbon solutions for hard-to-abate processes. The focus is now on diversifying biocarbon customers to unlock potential development for expansion.

**Yarwun Hydrogen Calcination:** Construction and commissioning of the Yarwun Hydrogen Calcination Pilot have now commenced, marking an important milestone in our efforts to decarbonise alumina refining. Through our partnership with Sumitomo Corporation and the Australian Government (through the Australian Renewable Energy Agency (ARENA), and Central Queensland Hydrogen hub), we have constructed a 2.5 MW electrolyser and have retrofitted one of Yarwun's 4 calciners to operate with a hydrogen burner. The pilot is demonstrating the viability of using hydrogen in the calcination process and is an important step toward reducing emissions in one of the most energy-intensive stages of alumina production. Commercial deployment at scale will depend on the availability of low-cost renewable hydrogen. If successful, this project could pave the way for broader global adoption of hydrogen-based calcination technology.



## Continued progress towards our 2030 targets

**Renewables:** Meaningful progress was achieved across our renewable energy portfolio in 2025. At Richards Bay Minerals (RBM), construction commenced in July on the 230 MW Overberg wind project. The 130 MW Bolobedu solar project was completed in October and is now pending grid connection. In the US, commercial operations were achieved in October for the 78.5 MW Monte Cristo wind project, alongside the execution of an additional 179 MW wind PPA. At Kennecott, the second phase of solar development, adding 25 MW of capacity, was completed, with commercial operations commencing in December.

We continue to advance structural solutions for long-term emissions reduction at other key sites. At Simandou, we are evaluating PPA and financing options as alternatives to direct capital investment, which will apply to solar installations at multiple scales, including rooftop systems, mine-site arrays, and a larger port-based facility. At Winu, wind resource monitoring is underway following the installation of a meteorological mast in September, supporting the development of one of Australia's largest off-grid hybrid renewable power solutions. The development remains subject to full Winu project approval (project currently in feasibility stage). Preparations for a PPA are progressing to support the Kangwinan mine expansion at Amrun, currently in feasibility stage. At Oyu Tolgoi, a 20-year PPA for a 150 MW wind farm and a 100 MWh BESS is advancing, with the project working through permitting and approval of the construction licence in late 2025.

**Anodes:** ELYSIS™ is a breakthrough aluminium smelting technology that eliminates carbon anodes and removes direct greenhouse gas emissions from the smelting process. While scaling this innovation presents typical challenges for major technology changes, we continue to make progress with our partners.

The ELYSIS™ joint venture (JV) achieved a key milestone with more than one year of inert anode life in testing at the 100 kA cell in Arvida, which included production of aluminium at P1020 standards and validating its industrial performance. In late 2025, the ELYSIS™ JV started up the first industrial-scale 450 kA cell at Alma, representing a major milestone in the company's transition from research and development to full-scale commercialisation.

In parallel, we are progressing the implementation of the first ELYSIS™ demonstration plant by deploying an initial 7 new 100 kA cells in a separate site under construction at Arvida. First hot metal is expected in 2027.

We are also working with ELYSIS™ and Alcoa on different options and partnerships to de-risk the electrode supply chain and support the deployment of inert anode solutions in the future.

While progress on the ELYSIS™ demonstration plant continues to be made, the commercial viability of the project will still need to be assessed prior to deploying the technology at industrial scale.

**Yarwun TES:** Work continues on our Thermal Energy Storage (TES) project at Yarwun which remains on schedule. The pre-feasibility study (PFS) for the industrial demonstration project to produce electric steam was completed in 2025 and the project is progressing towards feasibility study (FS) in 2026. This initiative will enable us to store excess renewable energy as heat and reduce reliance on coal, lowering emissions and improving energy resilience at Yarwun.

Following successful initial site trials with biopellets and a request-for-proposals market process, we are progressing several partnership opportunities for biopellet offtake agreements for both Yarwun and QAL.

**QAL double digestion:** The feasibility study is now well underway and progressing to schedule. A trial utilising a new heat exchanger has seen promising initial results. Innovative design options to simplify and optimise the flowsheet have also been identified. The order of magnitude study, to recover waste heat from the process, is in progress and options are being explored to upgrade this. The project is expected to commence pre-feasibility in 2026.

**Nature-based solutions:** A vital part of our climate strategy, nature-based solutions complement structural abatement while delivering benefits for people, nature and climate. These projects help protect and restore ecosystems, support sustainable livelihoods and generate high-quality carbon credits, reinforcing our commitment to a just and inclusive transition.

In 2025, we made strong progress on nature-based solutions, having enabled more than 500,000 hectares of high-integrity projects. Key achievements include surpassing cookstove distribution targets in Madagascar, advancing clean cooking and reforestation initiatives in Guinea, and progressing grasslands management scale-up in Argentina and a sustainable landscapes project in South Africa. We also expanded our environmental planting (EP) ACCU pipeline with support for new projects in Western Australia and a foundation offtaker role in the new Meldora platform in Central Queensland. The Cooplacurripa EP project in New South Wales, developed by the Silva Carbon Origination Fund in which we are a foundation investor, was registered as the first ever project under Australia's Nature Repair Market.

In Q4, we launched a review of our portfolio to reflect our changing operating context and the Rio Tinto Iron & Titanium strategic review, which encompasses operations in Madagascar and South Africa. The outcome of the strategic review will be a determining factor in our future investment decisions in these regions. We continue to apply our due diligence process to all projects. For more information see [riotinto.com/naturesolutions](http://riotinto.com/naturesolutions)

## Challenges faced and lessons learnt

**BlueSmelting™:** The BlueSmelting™ demonstration plant was developed to test the viability of pre-reduction technology aimed at reducing carbon emissions from ilmenite processing. The project forms part of our broader efforts to explore lower-carbon pathways for titanium dioxide production.

The trial program continued into 2025 and is scheduled to phase out by mid-2026, subsequent to a final iron metallisation assessment. The program provided valuable technical insights, confirming the compatibility with existing industrial processes and delivering improvements in furnace productivity, efficiency and operational flexibility. The trial has shown that industrial-scale deployment would require significant capital investment that is not yet commercially viable. We will continue monitoring conditions that could support broader deployment over time.

**Battery electric haul truck (BEHT) trials:** We began a BEHT trial in 2025 in collaboration with BHP, working with haul truck manufacturer Caterpillar, and a similar trial is anticipated with Komatsu, in the Pilbara region.

The trials are focused on collecting data on battery performance, charging systems, and overall productivity in Pilbara conditions.

The BEHT and associated equipment trials are a technically complex program, involving site integration and ensuring safety and compliance with regulatory requirements for battery electric equipment in Australia. Caterpillar and Komatsu are continuing to adapt their designs to ensure they are technically, commercially and operationally mature, and the strong collaboration on technology development and learning continues. Safe, reliable, and adaptable charging infrastructure is also critical to the success of this work and is being progressed in parallel.

Caterpillar BEHT trials began in 2025, while Komatsu's program has almost reached design maturity and is targeting trial commencement from 2029. The updated timeframe for trial of Komatsu's BEHT reflects the importance of technology readiness and Rio Tinto's increasing threshold for appropriate readiness and testing ahead of investment approvals.

**Pilbara renewables:** We continue to pursue solar energy projects to reduce gas consumption. However, deploying value-accretive renewables at scale presents significant and complex challenges, resulting in a slower deployment schedule than expected.

The Gudai Darri Solar PV farm is operating at nameplate capacity, with the Jinbi Solar Farm expected to start construction in 2026 and achieve its commercial operating date (COD) in 2028. Karratha solar farm studies are continuing, some schedule delays have been experienced as geotechnical and other project factors are evaluated. These projects represent important steps forward, but the broader pathway will require careful sequencing and leveraging technology improvements to enhance value, reduce capital intensity, and ensure a reliable and safe grid integration. Specifically, grid connection and commissioning in the Pilbara has become more complex under the newer staged access/compliance regime, requiring deeper independent ISO/regulatory scrutiny and multi-party technical due diligence. The permitting and approvals process requires a rigorous, collaborative and in-depth engagement, translating into an appropriate timeline to engage with Traditional Owners and partners to ensure developments are delivered responsibly.

Our approach prioritises flexibility and risk management while maintaining the ability to accelerate deployment as conditions evolve.

**Self-generated renewable diesel:** We have invested in establishing the foundations for our own biofuel supply, beginning with the early development of our Pongamia program. The pilot project has purchased approximately 2,500 ha of land and completed the first 100,000 plantings of Pongamia across properties in the Burdekin region of Queensland. This marks a key milestone in our research and development efforts to stimulate Australia's low-carbon liquid fuel industry. The initiative aims to support a pathway to cost-competitive production of sustainable fuels.

Future expansion beyond the 2,500 ha remains uncertain due to high commercial costs, the need for strategic partnerships to reduce capital requirements, and unclear policy settings in Australia. Government support, industry alignment, and shared investment will be critical to enable any potential scale-up to meet our requirements. This may include value chain partnerships, targeted supply-side incentives, infrastructure investment and sustainability frameworks.

## Action to reduce our emissions

The 3 main areas of our abatement work are: developing renewable electricity solutions at our Pacific Aluminium Operations and other assets that rely on gas or coal-based power; transitioning away from diesel in trucks, trains and mobile equipment; and tackling hard-to-abate emissions from processing minerals and metals. Additionally, we are developing and investing in nature-based solutions projects.

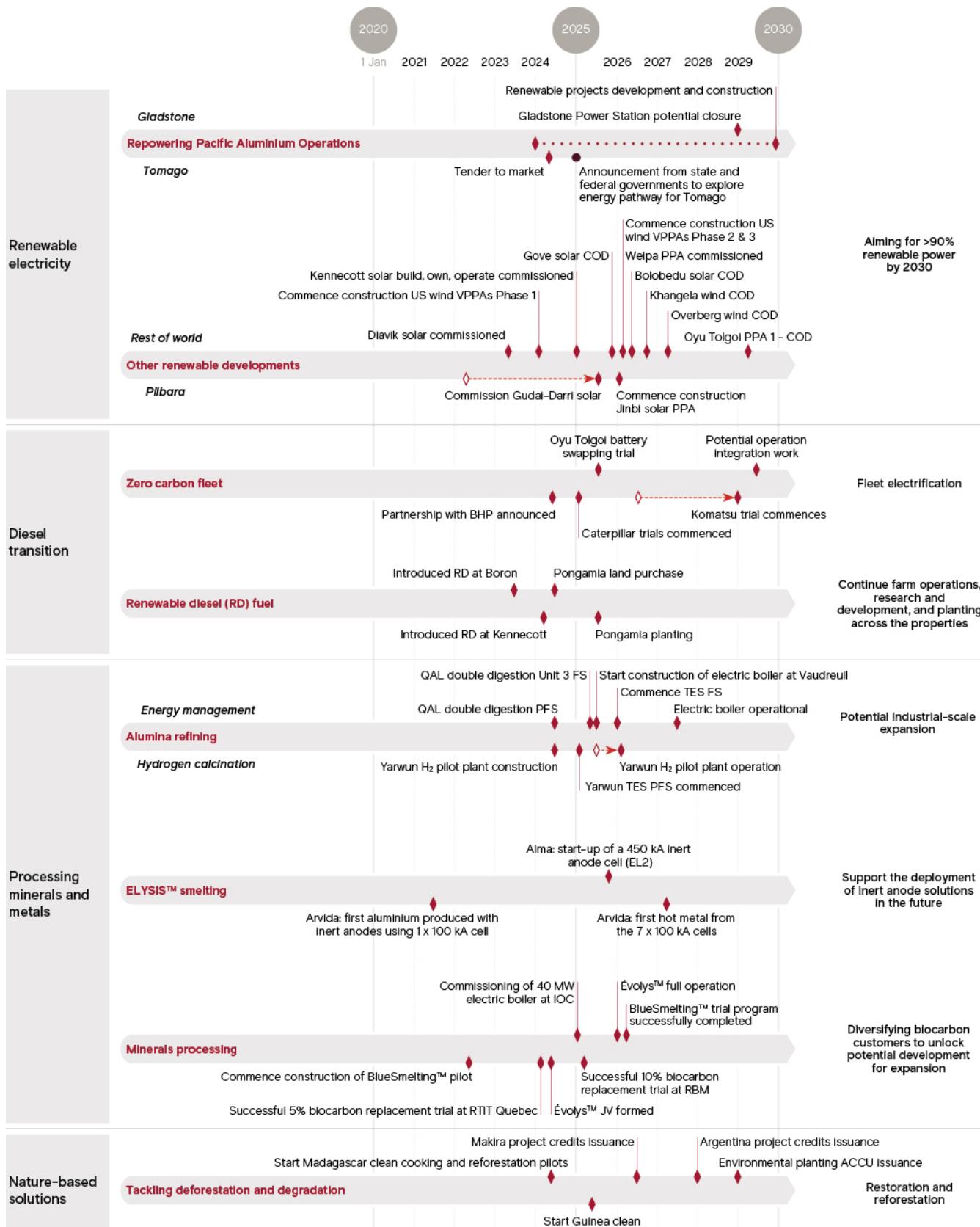
Progress in 2025	Action in 2026
<b>Renewable electricity</b>	
<b>Repowering Pacific Aluminium Operations</b>	
<ul style="list-style-type: none"> <li>Executed agreements with Edify Energy for Smoky Creek and Guthrie's Gap Solar Power Stations (600 MW solar, 2,400 MWh BESS with 90% Rio Tinto offtake).</li> <li>Progressed further procurement of renewable energy and storage projects.</li> <li>Progressed engagement with state and federal governments to secure support agreements for BSL.</li> <li>Announcement from state and federal governments to explore energy pathway for Tomago beyond 2028.</li> </ul>	<ul style="list-style-type: none"> <li>Complete remaining renewable energy sourcing, support energy projects progression to financial close, and develop market operations capability to support operationalisation at BSL. Finalise support arrangements with State and Federal governments.</li> <li>Progress QAL options review to repower existing load with renewable energy.</li> <li>Continue Tomago discussions.</li> </ul>

Progress in 2025	Action in 2026
<b>Other renewable electricity developments</b> <ul style="list-style-type: none"> <li>Commissioning was successfully completed at Gove (10 MW) in November, while Amrun (22 MW) has experienced some delays and will now achieve commercial operations in 2026.</li> <li>Construction completed and commercial operations achieved at Kennecott solar phase 2 (25 MW) in December 2025.</li> <li>Construction completed at QIT Madagascar Minerals (QMM) wind facility (16 MW) with commercial operations expected in 2026.</li> <li>Construction commenced at Richards Bay Minerals (RBM) Overberg wind PPA (230 MW).</li> <li>Completed construction at the RBM Bolobedu solar project (130 MW), grid connection now pending.</li> <li>Executed the Jinbi solar (75 MW) agreement with Yindjibarndi Energy Corporation.</li> <li>Karratha solar (80 MW) approval deferred to 2026.</li> <li>Commercial operations achieved for the Monte Cristo VPPA (78.5 MW) wind project with an additional 179 MW wind PPA executed.</li> <li>Secured 100 MW of renewable energy at Resolution Copper through a Green Tariff agreement with local utility Salt River Project. Delivery scheduled to begin in mid-2028.</li> </ul>	<ul style="list-style-type: none"> <li>Begin feasibility study to support the construction of a 10 MW onsite solar farm at Simandou.</li> <li>Execute the 150 MW Oyu Tolgoi wind PPA and a BESS.</li> <li>Commercial operations set to begin at the 140 MW RBM Khangela wind farm.</li> <li>Commercial operations set to begin at RBM Bolobedu.</li> <li>Received notice to proceed for the 56 MW Winu hybrid PPA.</li> <li>Begin construction on a 179 MW wind VPPA.</li> <li>Begin construction on the 75 MW Jinbi Solar farm.</li> </ul>
<b>Diesel transition</b>	<ul style="list-style-type: none"> <li>BEHT: In the Pilbara, Caterpillar trials started at Jimblebar.</li> <li>Oyu Tolgoi: Battery swap truck trial initiated with full system commissioning on site.</li> <li>Pongamia: Development progressed in Queensland, with the first 100,000 plantings.</li> </ul> <ul style="list-style-type: none"> <li>BEHT: Progress Caterpillar trial at Jimblebar (two CAT 793 BEHT), finalise Komatsu BEHT design, validation and commercialisation planning, and collaborate on the broader program activities required to support a pilot commencing from 2029.</li> <li>Oyu Tolgoi: Full battery equipment and system testing and validation of 8 battery electric trucks, battery swapping station, static charger and associated infrastructure.</li> <li>Pongamia: Continue initial farm operations, including research and development, and planting across the 2,500 ha properties.</li> </ul>
<b>Processing minerals and metals</b>	<ul style="list-style-type: none"> <li><b>Aluminium anodes</b> <ul style="list-style-type: none"> <li>Arvida: Achieved record-breaking longevity for a 100 kA ELYSIS™ cell, while advancing site works, infrastructure and construction for the additional 10 ELYSIS™ cells.</li> <li>Alma: Launched the industrial-scale (450 kA) ELYSIS™ cell #1.</li> </ul> </li> <li><b>Alumina processing</b> <ul style="list-style-type: none"> <li>QAL (double digestion): Feasibility study progressing, heater trial progressing and transport study underway.</li> <li>Yarwun (hydrogen calcination): Commissioning activities have commenced and will continue through early 2026 with hydrogen calcination trials expected to commence at the start of 2026.</li> <li>Vaudreuil (electric boiler): Site preparation work has begun.</li> <li>Vaudreuil (electric calcination): Pilot commissioning and pre-tests are underway.</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>Arvida: Continue to operate 100 kA cell.</li> <li>Arvida: Finalise the implementation of the first 7 cells and begin commissioning and start-up with first hot metal expected in 2027.</li> <li>Alma: Launch the industrial-scale (450 kA) cell #2 and cell #3.</li> <li>QAL (double digestion): Complete feasibility study and commence detailed engineering plan.</li> <li>Yarwun (hydrogen calcination): Execute trial program.</li> <li>Yarwun (TES): Complete feasibility study.</li> <li>Gladstone biofuels: Finalise initial supply contract for supply to begin in 2027/28.</li> <li>Vaudreuil (electric boiler): Construction will continue through 2026 with commissioning planned for 2027.</li> <li>Vaudreuil (electric calcination): Preparatory work for the industrial-scale demonstration, following piloting results, is scheduled to begin.</li> </ul>
<b>Minerals processing</b>	<ul style="list-style-type: none"> <li>Évolys™: Completed construction and commissioning, with readiness activities in progress.</li> <li>BlueSmelting™: Conversion of the plant to enable iron metallisation is complete, with commissioning activities well advanced.</li> <li>Iron Ore Company of Canada (IOC) electric boiler: Installation and commissioning complete; 40 MW unit now operational.</li> </ul> <ul style="list-style-type: none"> <li>Évolys™: Industrial ramp-up to maximise biocarbon replacement at Rio Tinto Iron and Titanium Quebec Operations/RBM and developing alternate customers.</li> <li>Évolys™: Develop phase 2 business case to lower production costs and expand the product portfolio.</li> <li>BlueSmelting™: Complete the final iron metallisation assessment and prepare the phase-out of BlueSmelting™.</li> </ul>
<b>Nature-based solutions</b>	<ul style="list-style-type: none"> <li>Clean cooking pilots listed on registries: 120,000 cookstoves distributed in Madagascar. User Acceptance Testing completed in Guinea.</li> <li>Reforestation pilots: initiated investment in 2 Guinea projects. Pilot in Madagascar completed.</li> <li>Guinea agroforestry project: feasibility study completed.</li> <li>Verified Emissions Reduction Purchase Agreement (VERPA) signed for Makira Natural Park REDD+<sup>1</sup> Project in Madagascar.</li> <li>South Africa feasibility study completed. Project Design Document finalised for KwaZulu-Natal (KZN) Sustainable Landscapes Program. Enabled stakeholder engagement for expanded World Heritage site in KZN. Funded initiation of co-management agreement between Ezemvelo KZN Wildlife and Peace Parks Foundation.</li> <li>Argentina sustainable grasslands project: offtake agreement secured, complementing 2025 investment in conservation and soil carbon research.</li> <li>Australia environmental planting ACCU pipeline: market review completed and new offtake agreements secured.</li> </ul> <ul style="list-style-type: none"> <li>Conclusion of Madagascar clean cooking pilot<sup>2</sup>.</li> <li>Distribute cookstoves for Guinea clean cooking pilot.</li> <li>Progress Guinea blue carbon mangrove protection and restoration project.</li> <li>Progress Guinea community reforestation project.</li> <li>Scale-up Australia environmental planting projects.</li> </ul>

1. United Nations Climate Change: 'REDD' stands for 'Reducing emissions from deforestation and forest degradation in developing countries. The '+' stands for additional forest-related activities that protect the climate, namely sustainable management of forests and the conservation and enhancement of forest carbon stocks.'

2. Further investment decision subject to outcome of RTIT strategic review.

## Operational decarbonisation project tracker



Milestones post-2025 are indicative, based on current goals and plans, subject to investment decisions and so they may change. There is increasing uncertainty further into the future.

## Scope 3 emissions: Partner to decarbonise our value chains

In 2025, our Scope 3 emissions were 575.7 Mt CO<sub>2</sub>e (equity basis), approximately 18 times higher than our Scope 1 and 2 emissions. This is higher by 5.9 Mt CO<sub>2</sub>e compared to a restated 2024 number of 569.8 Mt CO<sub>2</sub>e (equity basis).

The majority of these emissions (95%) stem from our customers processing our products, particularly iron ore (69%) and bauxite and alumina (23%).

Emissions related to iron ore processing were 398.5 Mt CO<sub>2</sub>e in 2025, compared to 395.9 Mt CO<sub>2</sub>e in 2024. Emissions related to bauxite and alumina processing increased from 134 Mt CO<sub>2</sub>e in 2024 to 135.2 Mt CO<sub>2</sub>e in 2025 due to increases in bauxite and alumina sales.

Many of our customers have set public targets for their Scope 1 and 2 emissions (our Scope 3). About 54%<sup>1</sup> of our steel-producing customers by direct iron ore sales volume have set public targets to reach net zero or carbon neutrality by 2050. Meanwhile, nearly 40%<sup>1</sup> of our bauxite sales are to customers with net zero emissions targets, though only 22% of customers are aiming for net zero by 2050.

As things stand today, our analysis of our customers' targets and their governments' commitments to reduce their emissions shows a trajectory for those processing emissions to approach net zero or carbon neutrality by around 2060. This is driven in large part by China (80% of Scope 3 emissions), which has pledged to be carbon neutral by 2060. Approximately 20% of our emissions come from countries such as South Korea and Japan, which have pledged to be net zero by 2050.

We are committed to partnering with customers and suppliers to help them achieve their targets earlier, reaching net zero by 2050. We have not set an overall Scope 3 emissions target due to the limited direct influence we have on the decarbonisation activities of our customers, required maturation of technology adoption and grid decarbonisation in customers' host countries.

Instead, we are holding ourselves accountable on real and measurable commitments in the near term, which will ensure technologies are available to accelerate the longer-term transition.

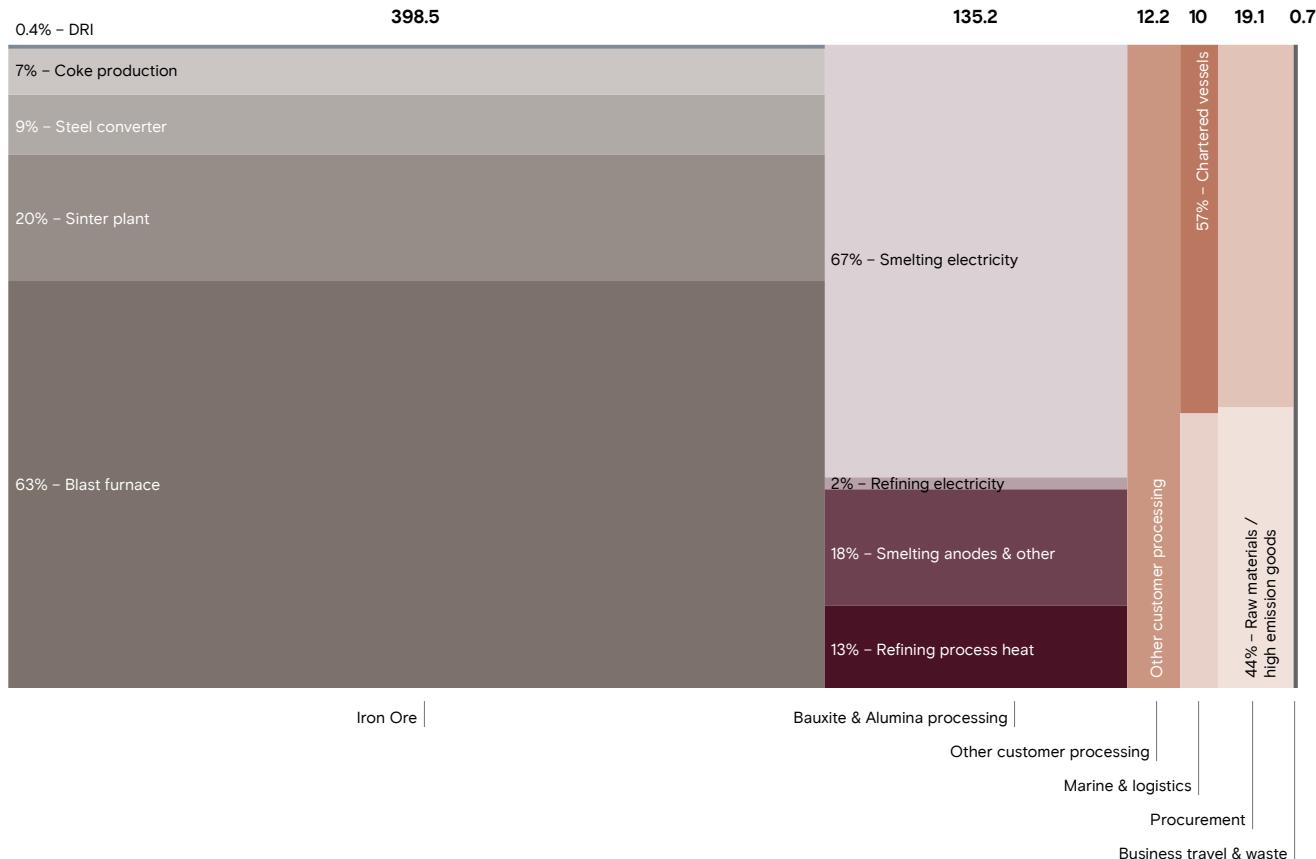
We have set near-term, action-oriented, and measurable targets in the areas where we believe we have agency and can support meaningful change. We take accountability and track our progress on individual projects and partnerships, and stay deeply connected across the value chain, ensuring we are up to date on developments and maintaining ambitious decarbonisation goals.

1. This figure is dependent on our sales mix, so is not comparable year-on-year.

### 2025 Scope 3 emissions

# 575.7 Mt CO<sub>2</sub>e

(2024: 569.8 Mt CO<sub>2</sub>e)



## Scope 3 progress

We continue advancing our climate commitments by working closely with customers, suppliers and partners to decarbonise the steel, aluminium, shipping and procurement value chains. While challenges remain, we are making tangible progress and building the foundations for long-term transformation.

## Steel value chain

### Steel decarbonisation targets

- Support our customers' ambitions to reduce their carbon emissions from blast furnace–basic oxygen furnace (BF–BOF) process by 20–30% by 2035.<sup>1</sup>
- Reduce our net Scope 3 emissions from IOC high-grade ores by 50% by 2035, relative to 2022.<sup>2</sup>
- Commission a shaft furnace – direct reduced iron (DRI) + electric smelting furnace (ESF) pilot plant by 2028 (revised from 2026), in partnership with a steelmaker.
- Finalise study on a beneficiation pilot plant in the Pilbara by 2026.

The steel industry overall accounts for approximately 8% of global carbon emissions. As one of the world's largest iron ore producers, we have a key role to play in decarbonising the steel value chain. In 2025, we spent \$65m on steel decarbonisation initiatives. Our approach is defined by 3 pathways:

**1. Existing pathways (blast furnace optimisation):** We're working with our customers to help reduce their carbon emissions from the current blast furnace. Examples of our initiatives include optimising blast furnace burden (eg using more pellets and lump), and carbon capture, utilisation and storage.

**2. Emerging pathways:** We're supporting early development of emerging low-carbon DRI projects that use high-grade iron ores, such as those we produce from IOC and Simandou.

## Steel decarbonisation projects tracker

Programs	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Blast furnace optimisation	Baowu climate change collaboration (CCC)		Shougang collaboration on low-carbon solutions		Shougang low-carbon sintering demo plant commissioned					
		Baowu Meishan lump drying pilot plant initiated		Baowu Meishan lump drying plant commissioned		Shougang large-scale carbon capture and utilisation facility target commissioning				
			Stegra multi-year supply for Stegra low-carbon iron & steel plant in Sweden			Stegra target operationalisation				
				Gravithy collaboration for ultra low CO <sub>2</sub> hot briquetted iron plant in France			Target Gravithy operationalisation			
Beneficiation		Beneficiation project kicked off				Finalise study on beneficiation pilot plant in the Pilbara				
				Industrial-scale trials to produce high-grade ores from Pilbara Blend						
Agglomeration shaft furnace	Nippon Steel decarbonisation collaboration		Baowu CCC phase II MoU		Pelletising industrial trials completed with up to 50% Pilbara Blend fines (PBF)					
		POSCO decarbonisation collaboration		Greeniron decarbonisation collaboration		Baowu shaft furnace direct reduction trials using PBF-based pellets				
Fluid bed			Hy4Smelt collaboration to develop industrial-scale prototype							
							Hy4Smelt plant target commissioning			
Biolron™	Early stage Biolron research (since ~2014)			Next-scale pilot plant project approved						
			Technology proven in small-scale pilot plant (SSPP)			Pilot plant paused to resolve design issues				
Electric smelting furnace (ESF)			NeoSmelt collaboration for ESF pilot in Western Australia		ESF trials for PBF-based DRI with Baowu					
				Commenced feasibility study for NeoSmelt ESF pilot			Commission an ESF pilot plant with a steelmaker			

♦ Past milestones

◊ Target future milestones

**3. Future pathways:** While low-carbon DRI technology is established for high grade ores, there is currently no economic low-carbon iron and steelmaking technology for low- and medium-grade ores, such as those from the Pilbara. We are supporting the development of technology for these ores, with a focus on:

- beneficiating our ores to remove impurities before ironmaking
- pelletising our ores to improve their suitability to proven shaft furnace technology
- developing fines-based fluid bed technology, which may be a suitable process for our fines products, removing the need to pelletise or sinter
- developing ESF technology, which is required for all pathways for low-medium grade ores as a second stage of ironmaking.

In 2025, the NeoSmelt™ ESF pilot entered feasibility stage, supported by ~A\$19.8 million in federal funding from the Australian Government. The NeoSmelt joint venture, which was initially a partnership between Rio Tinto, BlueScope and BHP, was also joined by Woodside and Mitsui Iron Ore Development. Given the research and development nature of the project, the exact timeline is uncertain, however, commissioning of the shaft furnace and ESF is expected to begin in 2028.

The Biolron™ pilot plant work, and associated commissioning target, has been paused due to technical and design challenges often associated with early-stage innovation. We remain committed to the long-term potential of Biolron™ technology, with research and development continuing in partnership with the University of Nottingham and sustainable technology company, Metso. Significant progress has been made in understanding how materials perform under high temperatures in the Biolron™ microwave furnace. However, the current furnace design requires additional development to minimise technical risks and optimise performance. This pause will allow the team to address these challenges and refine our approach.

- The support will be in the form of direct technical support and co-developing technology solutions.
- Subject to funding approval and technical feasibility.

## Aluminium value chain

### Alumina decarbonisation targets

- In 2025, partner with at least 2 bauxite customers with the goal of improving energy efficiency and reducing emissions, focusing on digestion improvement technology; controlling or removing organic compounds from the refining process; and technical options to reduce moisture content in our bauxite.

Energy efficiency is a key priority for our customers due to its direct impact on emissions. In the alumina refining process, steam is used to heat the bauxite slurry in the digestion unit to high temperatures, dissolving the alumina content. This digestion process is a crucial aspect in determining the overall energy efficiency of the refinery.

Organic control is equally important, particularly when processing Australian bauxites. Effective management supports consistent production rates and ensures the delivery of alumina quality aligned with customer requirements.

Across the aluminium value chain, over 85% of our 135.2 Mt CO<sub>2</sub>e Scope 3 emissions originate from the electricity- and emissions-intensive smelting process. Most of our product is processed in China, where coal-fired refining and smelting are prevalent and our ability to influence the energy mix in these regions is limited. Additionally, some bauxite sales are made through intermediaries, which restricts our direct engagement with end customers and limits our influence on decarbonisation initiatives at those refineries.

Despite these challenges, we maintain regular dialogue with our customers to understand their sustainability priorities and explore collaborative opportunities that align with our capabilities. In the short to medium term, our focus is on supporting improvements in the alumina refining process, enhancing energy efficiency and optimising the use of our bauxite.<sup>1</sup>

In 2025, we met our partnership targets and strengthened our partnerships with bauxite customers to drive refining efficiency and reduce emissions. A milestone was the signing of a Memorandum of Understanding with a strategic partner, establishing a platform for regular technical exchanges and collaboration across the aluminium sector. Through this partnership, we aim to optimise bauxite processing and explore decarbonisation technologies and bauxite residue reuse options.

We also supported several customer refineries in the design, construction, and commissioning of processing technologies. This included the delivery of a new low temperature digestion unit at one operation and the advancement of sweetening concept at another site scheduled for commissioning in 2026. In parallel, multiple refineries are transitioning to a co-precipitation technology with our technical support, a step change that improves the product quality and organic management.

Together, these initiatives are enabling more efficient processing of our bauxite, lowering energy intensity, and supporting our customers' decarbonisation pathways across the alumina refining process.

## Shipping

### Shipping decarbonisation targets

- Reach net zero shipping by 2050 across our shipping footprint.
- Fulfil First Movers Coalition (FMC) pledge of 10% of time-chartered fleet to be running on low-carbon fuels<sup>2</sup> by 2030 and progressing to 100% of time-chartered fleet by 2040<sup>3</sup>.
- Reduce emissions intensity by 40% by 2025 (5 years ahead of the target set by the International Maritime Organization (IMO)), and deliver 50% intensity reduction by 2030.<sup>4</sup>

Our Scope 3 emissions from shipping and logistics are 10 Mt CO<sub>2</sub>e. Of this, 5.7 Mt CO<sub>2</sub>e (57%) is generated by our chartered fleet, and around 2.6 Mt CO<sub>2</sub>e (26%) comes from shipping our products, where freight has been arranged by the purchaser.

The remaining 1.7 Mt CO<sub>2</sub>e (17%) comprises other logistics elements such as truck, rail, container movement and other logistics related emissions. An additional 0.4 Mt CO<sub>2</sub>e of Scope 1 shipping-related emissions is attributed to the vessels we own.

To reduce the emissions intensity of our shipping activities, we focus on energy efficiency improvements and switching to lower-carbon fuels. Against the IMO's 2008 baseline year for emissions intensity, our 2025 performance showed a 39% improvement. This result falls 1% short of our ambition to deliver a 40% reduction by 2025, largely due to weather impacts in the Pilbara region. We continue to progress towards our 2030 target of a 50% reduction in emissions intensity.

We continue to implement energy efficiency measures, such as the incorporation of larger vessels, technical and design modifications, and speed and route optimisation. Energy-saving device installations have progressed on our chartered vessels, building on the energy efficiency program on our owned vessels.

We also continue to progress the business case for lower-carbon fuels, including through industry initiatives such as the Western Australia-East Asia Green Corridor, which in 2025 saw the launch of the Pilbara Clean Fuel Bunkering Hub. Regulatory frameworks remain a critical enabler for economic fuel switching pathways, and we continue to monitor the IMO's efforts to create an equitable decarbonisation pathway at a global level.

## Procurement

### Procurement decarbonisation targets

- Engage with 50 of our highest-emitting suppliers on emissions reduction, focused on driving supplier accountability for setting and delivering against their decarbonisation targets.
- Implement decarbonisation evaluation criteria for new sourcing in high-emitting categories<sup>5</sup>.

Upstream Scope 3 emissions from procurement were 19.1 Mt CO<sub>2</sub>e (excluding business travel) in 2025, split between purchased fuels, goods and services. The goods and services are further divided between emissions related to operational expenditure purchases (such as caustic, explosives, coke, pitch) of 12.8 Mt CO<sub>2</sub>e, and capital expenditure purchases (such as machinery, electrical equipment) of 1.8 Mt CO<sub>2</sub>e. Due to the nature of our businesses, many of our purchased inputs are from hard-to-abate sectors, such as caustic, coke, pitch and steel.

We work with more than 20,000 suppliers across complex multi-layered supply chains. To address upstream emissions, we are taking a systematic approach, prioritising engagement with 50 of our highest-emitting suppliers. The prioritisation of suppliers and categories followed the assessment of the sources of emissions across the Global Procurement portfolio and available abatement pathways.

In 2025, we advanced supplier engagement. Decarbonisation criteria are embedded in our evaluation processes for new sourcing in high-emission categories, ensuring climate considerations are present in procurement decisions. This systematic approach is helping to drive accountability and align our supply chain with our net zero ambitions.

1. This is mostly via sweetening and improved digestion. In the longer term, this will be mostly through using renewable energy for the heat source, via hydrogen calcination and electric boilers.

2. Although the FMC currently employs the terminology "zero-emission" rather than "low-carbon", with a guiding principle of delivering a well-to-wake greenhouse gas emission reduction of 80% or more compared to fuel oil, we have updated our terminology to reflect that these fuels are unlikely to be fully net zero emissions on a life cycle basis over the coming years. While we endeavour to achieve the guiding principle proposed by the FMC, we may initially consider fuel pathways with a lesser emission reduction with consideration to factors such as supply, availability of technology and regulatory developments from the IMO.

3. Subject to the availability of technology, supply, safety standards and a reasonable price premium.

4. Relative to IMO's 2008 baseline.

5. High emitting categories: Raw materials, explosives, global equipment.

Progress in 2025	Action in 2026
<b>Scope 3 emissions goals and customer engagement</b>	
We are committed to partnering with customers and suppliers to help achieve their targets earlier, reaching net zero by 2050.	
<b>Steel value chain</b>	
<b>Existing pathways</b>	
<ul style="list-style-type: none"> <li>Produced up to 50% Pilbara blend fines based pellets and completed successful industrial scale blast furnace trials with customers.</li> <li>Completed construction of a large-scale (3,000 m<sup>3</sup>/hr) blast furnace carbon capture and utilisation (CCU) facility with Shougang.</li> </ul>	<ul style="list-style-type: none"> <li>Continue Rio Tinto iron ore pelletising trials with additional steelmaking customers.</li> <li>Commission the large-scale CCU facility with Shougang.</li> <li>Finalise lump usage guidelines for broader industry sharing.</li> <li>Continue test work with universities and steel mills to reduce carbon emission through optimising blast furnace burden structure.</li> <li>Conduct research and development on the carbon hydrogen recycle furnace process.</li> </ul>
<b>Emerging pathways</b>	
<ul style="list-style-type: none"> <li>Commenced early-stage customer engagement for GravitHy's 2 million tonnes per year ultra-low carbon hot briquetted iron (HBI).</li> </ul>	<ul style="list-style-type: none"> <li>Continue support for GravitHy feasibility study, with target to operationalise by 2029.</li> </ul>
<b>Future pathways</b>	
<ul style="list-style-type: none"> <li>Completed beneficiation pilot plant trials, successfully producing &gt;30 kt of high-grade material using Pilbara ores.</li> <li>Conducted Baowu shaft furnace direct reduction trials using Pilbara ore-based pellets.</li> <li>Paused construction of the BiolIron™ pilot plant, due to technical and design challenges.</li> <li>Entered Joint Development Agreement with Calix to support construction of Calix's Zero Emissions Steel Technology (Zesty™) demonstration plant in WA which could enable Pilbara iron ores to be used in producing steel with lower emissions.</li> <li>Entered consortium with Primetals and voestalpine to develop an industrial-scale prototype plant of Hy4Smelt, integrating fines-based fluid bed technology (HyFOR™) with an electric smelting furnace (ESF).</li> <li>Completed NeoSmelt™ pre-feasibility study and commenced feasibility study with support from the federal government.</li> </ul>	<ul style="list-style-type: none"> <li>Finalise desktop study on a beneficiation pilot plant in the Pilbara.</li> <li>Conduct further shaft furnace trials with Rio Tinto Iron Ore, including pellets and lump.</li> <li>Continue BiolIron™ technology development to minimise technical risks and optimise performance.</li> <li>Continue support for Calix's demonstration plant towards FID.</li> <li>Continue Hy4Smelt construction with target to operationalise by 2027.</li> <li>Complete ESF trials for PBF based DRI with Baowu.</li> <li>Complete NeoSmelt™ feasibility study and target FID.</li> </ul>
<b>Aluminium value chain</b>	
<ul style="list-style-type: none"> <li>Planning continues for digestion technology upgrades, with cost estimates underway for key equipment.</li> <li>Commissioned a new low temperature digestion unit.</li> <li>Work is progressing with customers on precipitation system upgrades, with commissioning expected by 2026.</li> <li>The bauxite moisture reduction project was discontinued due to resource and capital constraints.</li> </ul>	<ul style="list-style-type: none"> <li>QAL double digestion process to advance to detailed engineering phase.</li> <li>Sweetening process to be commissioned for 2 customer refineries.</li> <li>Co-precipitation upgrade to be commissioned at 2 sites.</li> </ul>
<b>Shipping</b>	
<ul style="list-style-type: none"> <li>Energy-saving devices have been installed on some of our chartered vessels, extending beyond our owned fleet.</li> <li>Progressed the business case for lower-carbon fuels, including through industry initiatives such as the Western Australia-East Asia Green Corridor, which in 2025 saw the launch of the Pilbara Clean Fuel Bunkering Hub.</li> </ul>	<ul style="list-style-type: none"> <li>Advance energy efficiency program, particularly on chartered vessels.</li> <li>Sustain engagement in industry initiatives to explore opportunities for deployment of low-carbon fuel while monitoring regulatory developments.</li> </ul>
<b>Procurement</b>	
<ul style="list-style-type: none"> <li>High-emissions categories are progressing to complete supplier engagements with 50 of the highest-emitting suppliers.</li> <li>Decarbonisation criteria are embedded in sourcing processes for high-emissions categories.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure decarbonisation criteria and engagements remain embedded within standard procurement processes for high-emissions suppliers and categories.</li> </ul>

## Physical climate risk and resilience

Understanding and managing physical climate risk is essential to the resilience and long-term performance of our business. As climate-related hazards, such as extreme weather, flooding, and temperature variability, become more frequent and severe, they pose direct risks to our operations, infrastructure, workforce and surrounding communities. These risks can disrupt production, damage assets, affect supply chains, and impact the health and safety of our people.

To address this, we have embedded climate risk management across the asset lifecycle, from project initiation to closure planning, ensuring our operations remain robust, adaptive, and responsive to a changing climate.

Our climate risk management approach is built around 4 pillars, supported by operational standards, resilience frameworks, and specialised programs:

### 1. Weather/climate analytics and insights

We apply advanced weather and climate data to support operational planning, emergency response, and long-term resilience:

- Short-term and severe weather forecasts inform day-to-day operations.
- Climate outlooks guide mine planning, particularly around rainfall and cyclone patterns.
- Catastrophe modelling estimates financial impacts of extreme events.
- Long-term climate projections (CMIP5 and CMIP6) support risk assessments and planning.

Climate projections are available for all assets, including non-managed sites, covering over 60 variables and multiple emissions scenarios. Flood risk modelling has been completed for 100% of assets across present-day, medium, and long-term horizons.

### 2. Physical risk identification and assessment

All sites within our portfolio are exposed to varying degrees of physical climate risk. As climate conditions continue to evolve, these exposures may shift over time, potentially impacting asset resilience and overall performance.

Our approach to quantifying and assessing physical risk covers individual assets (bottom-up) and Group level (top-down). We first identify climate risks and opportunities across varying time horizons and emission scenarios. Next, we evaluate their potential financial and non-financial consequences and likelihood. Then we prioritise these risks by materiality for effective risk management and appropriate resource allocation. This process is integrated within the Rio Tinto Risk Management Information System.

The scope of our assessments includes our operations and the environments in which we operate, our people, the communities who host us and our supply chain.

See pages 78–80 for further details on our approach to physical climate risk and resilience, as well as our modelling of financial exposure to physical climate risk.

### 3. Resilience planning and adaptation

Our resilience planning identifies the most appropriate measures to manage climate risks and adapt to them. We comprehensively evaluate an investment decision before funding is approved. This includes prioritising projects and engaging key stakeholders to seek alignment on the investment and implementation of adaptation measures.

### 4. Monitoring and evaluation

We actively and regularly monitor risks, with clearly defined roles and responsibilities. We continually evaluate the latest generation of climate change data and emerging technologies to assess the risk profile of our assets and infrastructure over time. Assessment processes are revisited where we have identified a material change to the economic, social, environmental or physical context of the risk.

### From risk to resilience: applying our framework in practice

Our most material physical risks have been identified at a Group level and are described in detail on page 78 along with the specific actions we are taking to build resilience and reduce exposure. These actions include infrastructure improvements, operational adaptations, and enhanced contingency planning.

Investments to support asset resilience to physical climate risks are considered in both sustaining and development expenditure. When undertaken during the initial design and development phases of an asset or site, these investments are classified as development capital. Similarly, expenditure aimed at preserving the original capacity and functionality of existing assets is treated as sustaining capital, and forms part of our standard operating activities.

Building on our physical resilience approach, we implemented a number of measures to strengthen our resilience to physical climate risks during the year.

#### Case study: Pilbara rail

Pilbara Rail demonstrates how climate resilience is actively designed into major infrastructure projects and operational systems. The network is engineered to remain functional during extreme weather events, with integrated systems that monitor track conditions – such as temperature spikes and structural anomalies – to support early intervention and maintain safety and performance. Autonomous locomotive operations play a key role in maintaining productivity during extreme heat events.

Resilience planning is embedded from the outset, not only in day-to-day operations but also in the design of new developments and significant renewal programs.

#### Case study: Dampier seawater desalination plant

The West Pilbara Water Supply Scheme supports several towns and industrial sites in Western Australia. Declining rainfall and reduced streamflow have led to lower aquifer recharge. In response, we are developing a seawater desalination plant in Dampier to provide a climate-resilient water source for its Pilbara operations and the communities it supplies. Stage 1 will deliver 4 gigalitres annually by 2026, with potential expansion to 8 gigalitres, reducing reliance on stressed groundwater sources like Bungaroo and Millstream.

The plant is designed to minimise environmental impact, using reclaimed land and existing infrastructure. Climate resilience features include elevated siting to protect against future storm surges. Developed in consultation with Traditional Owners and supported by the Western Australian Government and Water Corporation, the project aligns with our broader sustainability and climate adaptation goals, helping secure long-term water supply for coastal operations and West Pilbara communities.

#### Case study: Simandou mine and rail

Guinea is exposed to climate extremes that include increasing rainfall intensity, flooding, erosion and heat. Physical climate change resilience has been embedded into the design and operation of the Simandou iron ore mine following a structured climate resilience assessment. A key feature is ongoing monitoring of climate-sensitive performance thresholds, including rainfall, performance of water management systems and slope stability, to support adaptive management and emergency response preparedness. At the mine, resilience measures include landform designs accounting for more intense precipitation, mine water management controls addressing flooding, erosion and water quality risks, and emergency response planning for foreseeable extreme weather events. Along the rail corridor, climate change projections have informed drainage, flood protection and embankment stability and erosion controls. Rail resilience is further supported by emergency power generation, enabling continued operation during disruptions.

## Just transition

Our just transition strategy recognises that we have a role to play in optimising the socio-economic opportunities associated with decarbonising our assets, while safeguarding the rights of workers and communities. We remain committed to ensuring that the transition to a low-carbon future is inclusive, equitable and responsive to the needs of workers, communities and Indigenous Peoples. Our just transition strategy focuses on the areas most within our control, with a strong emphasis on stakeholder and community engagement, impact assessment and transparent communication.

### Principles and progress

In 2025, we strengthened our approach to integrating just transition principles into project planning and decision making. We have sought to embed the following global just transition principles into our decarbonisation strategy to minimise impacts and optimise socio-economic opportunities.

**Principle 1: We will take a place-based approach to planning for a just transition, and focus on those regions where our emissions are greatest and our decarbonisation activities have a significant interface with communities**

We mapped our emissions profile and decarbonisation projects this year to understand which communities could face the most significant transition changes. We have evolved our tools and processes to understand the specific needs and expectations of these communities. For example, through our Local Voices community sentiment survey.

This survey now includes questions on climate change and energy transition awareness, providing insights into community understanding and concerns at a local and regional level.

**Principle 2: We will work collaboratively with communities, government and industry to enhance regional economic diversification and skills development**

We remain committed to early, inclusive, and transparent engagement with employees and unions, and have created a working group on the subject with our global Industrial Relations Steering Committee.

We are investing in infrastructure, education, and innovation hubs to help mining regions thrive beyond extraction. For example, we have committed \$150 million to create a Centre for Future Materials led by Imperial College London to find innovative ways to provide the materials the world needs for the energy transition.

The “Rio Tinto Centre for Future Materials” will fund research programs to transform the way vital materials are produced, used and recycled, and make them more environmentally, economically and socially sustainable.

We are actively participating in industry and investor working groups to help shape emerging guidance and policy on just transition.

**Principle 3: We will build just transition considerations into relevant scopes of work so that the impacts of decarbonisation activities are well considered and embedded in our decision making**

Our decarbonisation and nature-based solutions projects are typically delivered in partnership with other organisations. We have developed due diligence and project evaluation processes that assess alignment with just transition principles, including partner capability to uphold these standards.

As part of our due diligence or project planning process, we undertake a robust analysis of workforce, social, political and cultural risk ahead of project development to build just transition considerations into planning.

We are embedding just transition considerations into the scope of Social and Human Rights Impact Assessments, ensuring that the social dimensions of decarbonisation are well understood and inform decision-making.

**Principle 4: We will proactively engage with Indigenous Peoples, host communities, government, civil society organisations and industry to share the information we have about climate change and our plans to decarbonise**

We engage with our communities on climate change projections and decarbonisation activities in priority regions, so that they can make informed decisions and feel prepared for the energy transition. In 2025, we collated key data from different parts of the business to prepare for meaningful, two-way engagement.

As part of this engagement we will bring key stakeholders together to take shared accountability for adapting to the impacts of climate change and decarbonisation.

Our engagement forums with host communities, civil society organisations and the local workforce continue to be key platforms for facilitating transparency and listening to stakeholder concerns.

## Climate policy and advocacy

While business has a vital role in managing the risks and uncertainties of climate change, governments are essential to support the challenge by providing enabling frameworks, including policies and programs, which enable change and create the right frameworks for change and increase momentum to shared net zero goals.

We actively engage on climate and energy policy with governments, industry, investors and civil society in the countries where we operate to shape policies, regulations and frameworks that help meet our decarbonisation goals and support global goals, including those of the Paris Agreement.

In 2025, we continued to advocate for policies that enable decarbonisation of our operations and support the production of transition materials. Our engagements align with the goals of the Paris Agreement, including efforts to limit global warming to 1.5°C, and we encouraged alignment across industry associations.

We participated in direct policy consultations with governments, contributed to policy development through industry bodies, and published all our standalone submissions to public consultation processes on climate-related policy.

We also completed and disclosed our annual review of industry association climate advocacy.

We remain committed to transparency in our advocacy activities and to supporting policy frameworks that accelerate the transition to net zero.



**For more information** on our climate position and advocacy, see [riotinto.com/climateposition](http://riotinto.com/climateposition)

Climate policy and regulation	2025 Activities
<b>Development of carbon pricing schemes to support the transition</b> In the absence of global carbon prices, country-level carbon pricing or emissions reductions schemes must balance shared net zero emissions with the competitiveness of our operations and risks of carbon leakage.	<ul style="list-style-type: none"> <li>In Australia, we provided feedback via our industry associations into the Climate Change Authority's review of the <i>Carbon Credits (Carbon Farming Initiative) Act 2011</i>, with a focus on delivering high integrity methods to support abatement.</li> <li>We provided feedback directly and through industry associations to the European Commission on several Carbon Border Adjustment Mechanism (CBAM) implementing acts. We support the inclusion of indirect emissions and a fair treatment of scrap content.</li> <li>In Canada, we provided feedback directly and through industry associations to the provincial government on the development of their assessment of the operating parameters of the Quebec Cap-and-Trade System. We support the use of high-quality offsets and the continued protection of the competitiveness of our industry.</li> <li>In 2026, we will engage in the scheduled review of the Australian Safeguard Mechanism. We support the scheme's ongoing role in incentivising the private sector to make low-emissions investments.</li> </ul>
<b>Climate-related financial reporting</b> We support the development of frameworks that encourage transparency and provide the key disclosures required for investors and other external stakeholders to compare progress against climate ambitions, enhance competitiveness in global markets, attract investment and accelerate the transition of economies.	<ul style="list-style-type: none"> <li>We provided feedback directly to the European Financial Reporting Advisory Group (EFRAG) and through our European industry associations on the proposed revisions to the European Sustainability Reporting Standards under the Corporate Sustainability Reporting Directive, supporting alignment with international standards to promote transparency, consistency and comparability of sustainability disclosures, including climate-related information.</li> <li>In Australia, we provided input into updates to the National Greenhouse and Energy Reporting Scheme to support enhancements to market-based reporting, in line with the GHG Protocol.</li> </ul>
Energy transition and commodity demand	2025 Activities
<b>Growing demand for low carbon products</b> Policy is necessary to transform the metals sector including by supporting research and development, and driving deployment of pre-commercial technology.	<ul style="list-style-type: none"> <li>We engaged in the development of the Australian Guarantee of Origin Scheme for the certification of renewable electricity and low carbon products and note its potential to support the development of markets and international trade of low emissions products and renewable electricity.</li> </ul>
<b>Decarbonising energy systems</b> Government's sectoral decarbonisation plans and policies should support investment certainty and drive an orderly transition of energy systems while supporting operational decarbonisation through the delivery of a sufficient supply of competitively priced, reliable, low-carbon energy.	<ul style="list-style-type: none"> <li>In Australia, we responded to the Productivity Commission's interim report on "Investing in cheaper, cleaner energy and the net zero transformation" to reiterate our advocacy for competitively-priced, firmed, renewable electricity at scale as the critical enabler for decarbonisation, and the role of policy and regulation to support the energy transition.</li> </ul>
<b>Progressing decarbonisation plans for the aluminium industry</b>	<ul style="list-style-type: none"> <li>In Australia, we participated in the design process for the Green Aluminium Production Credit, advocating for the scheme to focus on increasing renewable electricity use at smelter facilities.</li> </ul>
<b>Global technology development</b>	<ul style="list-style-type: none"> <li>We engaged with ARENA across our portfolio to explore partnership options and advocate for Government support for technology development and deployment.</li> </ul>
<b>Development of a sustainable low-carbon liquid fuels industry</b> Displacing diesel use requires a range of options, including fleet electrification and the use of renewable diesel. Government policies are required to support the development of a competitive and sustainable low-carbon liquid fuels market.	<ul style="list-style-type: none"> <li>In Australia, we continued to advocate for government's role in scaling up a domestic biofuels industry by focusing on the supply of sustainable feedstocks. Our advocacy included responding to the public consultation on developing a National Bioenergy Feedstocks strategy.</li> </ul>

## Climate-related governance

### Directors' declaration in relation to the consolidated Sustainability Report of Rio Tinto

As required by the Australian Corporations Act 2001 (Cth) as modified by ASIC Instrument 26-0081 (Corporations Act), and in accordance with Australian sustainability standards and other emerging standards, Rio Tinto has prepared the climate-related disclosures included in this Annual Report in the section titled “Climate”, in other sections cross-referenced from that section, and in the *2024 Scope 1, 2 and 3 Emissions Calculation and Climate Methodology* and the 2025 Addendum ([riotinto.com/climatereporting](http://riotinto.com/climatereporting)), (the Sustainability Report), in respect of Rio Tinto plc, Rio Tinto Limited and their respective subsidiaries (the Rio Tinto Group). Other sustainability-related information included elsewhere in this Annual Report, or published on our website (unless specifically referred to by document and page number), is not part of the Sustainability Report and has not been prepared pursuant to the Corporations Act, Australian sustainability standards or related ASIC instruments.

Under the Corporations Act, the Directors must provide a declaration in respect of the Sustainability Report. Each of the current Directors, whose names and function are listed on pages 104 and 105 in the Directors' Report, declare that, in their opinion, Rio Tinto Limited has taken reasonable steps to ensure that the substantive provisions of the Sustainability Report are in accordance with the Corporations Act, including:

- complying with applicable sustainability standards
- complying with section 296D of the Corporations Act (climate statement disclosures).

The ASIC relief referred to above permits the Sustainability Report to relate to the Rio Tinto Group as a whole, rather than to only Rio Tinto Limited and its subsidiaries. For the purposes of sections 342(C)(4) and (5) of the Corporations Act, the Directors intend that subsection 342C(6) of the Corporations Act apply to the Sustainability Report.

This declaration is made in accordance with a resolution of the Board.



**Dominic Barton**  
Chair

19 February 2026

### The Board

The Board has ultimate responsibility for our overall approach to climate change. This includes the oversight of climate-related risks, opportunities, strategy, projects, partnerships, physical resilience, engagement, reporting, and advocacy as per the Schedule of Matters. Climate change and the low-carbon transition present material risks and opportunities for our business, forming a key part of our strategy and sustainability and social licence objectives. The Board approves our overall strategy, policy positions, and climate disclosures within this report, delegating specific responsibilities to committees and the Chief Executive. These factors are considered in strategy discussions, risk management, financial reporting, investment decisions, and executive remuneration.

The Board receives regular updates on climate-related matters through the Monthly Performance Review scorecard, which includes KPIs and a detailed decarbonisation scorecard covering operational emissions, offsets, abatement projects and Scope 3 emissions. During the year, climate is also addressed through other agenda items. For example, the Board and the Audit & Risk Committee considered climate-related risks and opportunities as part of their review of the Group's principal risks and uncertainties. See further required details in “Our risk management governance structure” on page 89, and “Principal risks and uncertainties” on pages 91 and 97.

In the past 12 months, the Board agendas have included climate-related items, such as discussions on repowering options for our Pacific Aluminium Operations. This has included oversight of the Group's emissions reduction pathway and its reliance on securing

commercially viable renewable energy contracts for the Boyne and Tomago smelters. The Board balances environmental goals with social and financial considerations and continues to oversee these discussions to ensure decisions reflect both strategic priorities and stakeholder impacts.

In 2022, our shareholders supported our first CAP put forward to them by the Board, in a non-binding advisory vote on our ambitions, emissions targets and actions to achieve them.

The Board further committed to repeating this vote every 3 years, at a minimum, unless there were significant changes in the interim, in which case the CAP would be returned to the next immediate AGM. The 2025 CAP was approved by shareholders at our 2025 AGM.

When considering Board composition, an external consultant is used to support the appointment of new directors. No new non-executive directors were appointed in 2025. This year we undertook an internal review of Board performance and considered the skills of Directors, including those relating to climate and renewable energy. These skills are reflected in a matrix approved by the Nominations & Governance Committee. We expect our Directors to remain informed and up to date on relevant matters.

To support the Board's oversight of climate-related matters, this year the Audit & Risk Committee, joined by members of the Sustainability Committee, received an externally facilitated session on climate governance and considerations for boards in preparing for mandatory climate reporting, including new Australian disclosure obligations. In addition, the Chief Decarbonisation Officer presented on our approach to climate reporting, the organisational model in place to oversee climate-related risks and opportunities, and our approach to mandatory assurance requirements. These sessions complement ongoing updates on strategic priorities and decarbonisation initiatives and form part of our commitment to strengthening Board capability in managing climate-related matters.

 **For additional information** see our Strategic context and Strategic framework on pages 6-9.

### Summary of 2025 Board activities:

- Approved the Group's strategy and scenarios, including the use of climate scenarios and the impact and opportunities arising from the energy transition.
- Approved the 2025 Climate Action Plan (CAP) and climate-related disclosures in the 2024 Annual Report, including the notes to the financial statements.
- Engaged with investors and civil society organisations following the publication of our 2025 CAP.
- Approved various projects that support the growth in production of transition materials and our internal decarbonisation objectives.
- Oversaw adoption and implementation of the Australian climate reporting standards (AASB S2).
- Updated the Group's operational decarbonisation pathway and associated expenditure.

### Sustainability Committee

The Sustainability Committee is responsible for the oversight of key sustainability issues including social and environmental matters that are impacted by climate change, particularly those relating to water and biodiversity. In 2025, the Terms of Reference were updated to reflect these responsibilities including oversight of physical resilience to climate change, which the Committee discusses on a periodic basis.

The committee works with the Audit & Risk Committee to ensure the effectiveness of the risk management framework, and to oversee engagement with the external auditors who conduct sustainability assurance, including assurance in relation to GHG emissions.

For more information see pages 120-121.

### Audit & Risk Committee

The Audit & Risk Committee is responsible for risk management systems and internal controls, financial reporting processes and the relationship with the external auditors as noted in its committee terms of reference. This involves the oversight of significant areas of

judgement relating to the financial statements including those relating to climate, consideration of climate policies, and stress testing our strategy against selected scenarios. It ensures the effectiveness of the risk management framework and also endorses the appointment and fees of the external auditors who assure GHG emissions.

The Committee's terms of reference were revised in February 2026 to formalise the oversight of the non-financial reporting process (supported by the Sustainability Committee) including those disclosures relating to climate.

## People & Remuneration Committee

The role of the People & Remuneration Committee includes the oversight of the Group's remuneration structure, including the use of short- and long-term incentive plans for the Executive Directors, as reflected in its charter.

This includes performance against strategic measures linked to decarbonisation. In 2025, 10% of the short-term incentive plan (STIP) and 20% of the long-term incentive plan (LTIP) were weighted towards decarbonisation, including the progress of our carbon abatement projects. See pages 122-139 for our 2025 remuneration outcomes and the incorporation of climate-related measures in the STIP and LTIP.

## Management

### Investment Committee

The Investment Committee reviews and approves the Group's capital allocation in relation to high-cost projects and climate change research and development.

 **For more information** on our Capital allocation and investment framework, see page 58.

### Chief Executive and Executive Committee

The Chief Executive is responsible for delivering the CAP, as approved by the Board, with the Executive Committee supporting this role. The Executive Committee receives a quarterly decarbonisation progress report which includes updates on abatement projects and other areas of our CAP.

Risk management, portfolio reviews, capital investments, annual financial planning and our approach to government engagement are integrated into our approach to climate change and emissions targets. The annual financial planning process focuses on the short term (up to 2 years). The new growth and decarbonisation strategy is part of the medium-term planning process.

**Remuneration:** Our Chief Executive's performance objectives in the STIP include delivery of the Group's strategy on climate change. These are cascaded down into the annual objectives of relevant members of the Executive Committee, including the Chief Safety & Technical Officer, and other members of senior management. Decarbonisation is also included as a performance measure in the STIP and LTIP as described above. See pages 131-139 for our 2025 remuneration outcomes and the incorporation of climate-related measures in the STIP and LTIP.

### Energy and Climate team

Since 2022, we have managed delivery of our CAP through a central team, Rio Tinto Energy & Climate (RTEC). This team, led by the Chief Decarbonisation Officer who reports to the Chief Safety & Technical Officer, has been accountable for all aspects of the CAP.

The RTEC team has been structured around the main areas of our abatement work that drive decarbonisation across our operations, including a dedicated Nature-based Solutions team. A Decarbonisation Office (DO) supports this work by monitoring and forecasting GHG emissions, tracking investment decisions, coordinating our approach to physical climate risks, and engaging on climate-related policies, regulation and reporting. It also prepares the quarterly decarbonisation progress report for the Executive Committee.

As part of the evolution of our strategy and operating model, we are transitioning delivery of decarbonisation projects to our product groups and assets. This shift reflects a move to embed delivery more directly within our operational structure. Central oversight will continue for emissions reductions tracking and

investment strategy review, ensuring alignment with our overall climate objectives. The current model, with delivery led centrally by the RTEC team, has remained in place throughout 2025.

Rio Tinto Commercial continues to lead our approach to Scope 3 emissions, given its responsibility for procurement, shipping and customer engagement. Updates on Scope 3 emissions abatement projects are included in the quarterly decarbonisation report prepared by the DO.

## Management of climate-related risks and opportunities

The Board approves our risk appetite and oversees our principal risks. The Board is supported in monitoring a range of material financial and non-financial current and emerging risks by the Audit & Risk and Sustainability committees. Climate-related risks<sup>1</sup> and opportunities are integrated in our enterprise-wide risk management framework. These are identified by product groups and supporting functions, then included in the appropriate risk register. These will be assigned a risk owner and evaluated on the maximum reasonable consequence (non-financial and financial) and likelihood of the risk. Consequences may include the impact on Group free cash flow or business value, or reputation and licence to operate. These risks are escalated to the appropriate level of management for oversight and action. Processes remain unchanged from the prior year. See further required details in "Our risk management governance structure" on page 89, "Emerging risks" on page 90 and "Our approach to risk management" on page 89 for more detail on our risk management process, emerging risks and our current assessment of principal risks and uncertainties.

Under our 3 lines of defence model, all employees are empowered to own and manage the risks that arise within their area of responsibility. Our Enterprise functions are our 2nd line of defence, providing deep subject matter expertise and objective challenge. Our Internal Audit function provides independent assurance. Where required by law, or where deemed appropriate, we also engage third parties to provide independent assurance. Where risks are material to the Group, they are escalated to the Risk Management Committee and, as appropriate, to the Board or its committees.

We actively monitor and assess the potential impact of climate risks and opportunities on our operations and business through scenario planning. See pages 73 and 79 for more detail on how we use scenarios to identify climate-related transition and physical risks, and portfolio opportunities. Additionally, climate-related opportunities are prioritised by considering factors such as shareholder value, asset cost base, emissions abatement potential, and competitiveness against the marginal abatement cost curve, as outlined in our "Capital allocation and investment framework" section on page 58.

Climate change and the low-carbon transition remain critical emerging risks, with potential to have a significant impact on our business and the communities where we operate. Emerging risks that could materially impact strategic objectives are incorporated within our principal risks and, where possible, we develop responses to mitigate threats and create opportunities for the Group.

In 2025, climate change has been elevated to a standalone principal risk to reflect its increasing relevance and potential to materially impact our business. "Preparing our business for climate change" includes both physical risks (such as extreme weather events and long-term environmental changes) and transition risks and opportunities (arising from shifts in policy, technology, and market expectations as the global economy decarbonises). See further information on "Preparing our business for climate change" including opportunities, threats, key exposures and key management responses on page 97.

Recognising climate change as a principal risk reflects the growing complexity and interconnection of climate-related risks and opportunities across our business. It also supports continued integration of climate-related considerations into strategic planning and risk management across the Group. All Group principal risks and uncertainties are reviewed on a quarterly basis by the Enterprise Risk function and the Risk Management Committee (RMC).

1. Our Group Risk Management framework refers to "risks" in the context of both threats and opportunities. For purposes of disclosure in this section, we refer to climate risks and opportunities separately.

## Scenario analysis

We use scenario analysis to identify and assess material risks and opportunities, including those related to climate change, that may affect our Group in the medium and long term. All material Group operations are included in our analysis.

Transition risks and opportunities are assessed using short-term market analysis and our Group Conviction, Resilience and Aspirational Leadership scenarios for the medium and long term. These scenarios are macroeconomic in nature and reflect an integrated assessment of climate change, geopolitics, policy developments and broader economic conditions. As these factors are closely interrelated, we assess transition impacts through our Group scenarios rather than through discrete climate models. The temperature outcomes of these scenarios are informed by detailed economic modelling, combining internal and external sector-focused insights.

Physical climate risks are assessed separately using bottom-up, asset-level analysis aligned to discrete climate model-based emissions scenarios, including intermediate and high-emissions pathways.

Our process for identifying material transition risks considers whether climate-related factors, such as regulatory and policy changes, technology developments, community expectations, and physical climate impacts, could have a material impact on our business model, strategy, or financial statements. Climate risks and opportunities are considered material when they could reasonably affect our ability to deliver on strategic objectives, maintain financial resilience, or require changes to operations or investment priorities.

While specific thresholds vary by risk type and scenario, we consider indicators such as potential for sustained cost increases, prolonged operational disruption, impact on shareholder value or reputational impacts that could influence long-term value.

Examples include:

- regulatory or policy changes that increase costs or delay projects
- technology shifts that alter competitiveness or investment priorities
- community or stakeholder actions that affect access to resources or require major changes in approach.

Rather than applying a single threshold, we use structured analysis to identify risks that could have a meaningful effect on our business performance or strategic objectives. These risks are escalated for management oversight and actioned as appropriate.

### Additional information on scenario analysis

We review our scenario approach every year as part of our Group strategy engagement with the Board. For planning purposes, we define short term as up to 2 years, medium term as 2 to 10 years and long term as beyond 10 years.

Our short-term timeframe aligns with our annual planning process and is informed by market analysis, allowing us to respond swiftly to immediate market conditions and trends, and remain agile and competitive in the near term.

The medium-term timeframe aligns with extended planning horizons for our growth and emissions abatement projects, while the long-term timeframe considers the full lifespan of our mining assets and infrastructure, as well as the continued impact climate risks and opportunities are expected to have on the business.

Scenarios are used primarily over the medium and long term to identify and evaluate transition risks that can affect our business model, financial performance and market positioning, assess opportunities such as low-carbon technologies and the transition to renewable energy, and inform strategic planning and investment decisions, recognising that uncertainty in assumptions and projections inevitably increases further into the future.

We do not undertake climate modelling ourselves, but rather determine the approximate temperature outcomes by comparing the emissions pathways to 2100 in each of our scenarios with the Shared Socio-economic Pathways (SSP) set out in the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report. We also consider the carbon budgets associated with different temperature outcomes which are inevitably uncertain. In 2024, we updated the scenario framework used to assess the resilience of our business under different transition-related scenarios. This year, the Conviction scenario was rerun to reflect updated assumptions and temperature outcomes, while the Resilience and Aspirational scenarios were not rerun as no material changes were made to their underlying assumptions or inputs.

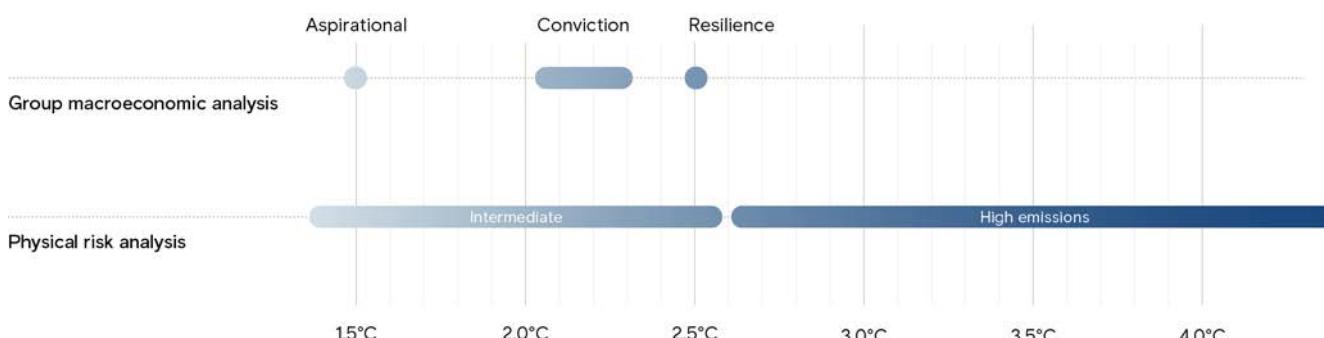
Alongside commodity, energy, currency and other macroeconomic assumptions, carbon pricing is also factored into our scenario analysis and used to evaluate investment decisions. Our short-term carbon pricing assumptions align with consensus price forecasts in each region, accounting for transitional assistance, such as free allocation, where appropriate. Medium- to long-term carbon prices are determined by national climate targets, and our understanding of the marginal abatement costs and objectives for each scheme.

Dependent on location and time horizon, our internally applied carbon prices range from \$0/t CO<sub>2</sub>e to \$250/t CO<sub>2</sub>e.

The temperature outcomes of scenarios and sensitivities are based on detailed economic modelling using various tools and analyses, combining internal and external insights focused on sectors relevant to our commodities. The emissions pathways in Conviction and Resilience limit temperature rises to around 2.1–2.3°C (previously 2.1°C), and around 2.5°C by 2100 respectively. This roughly aligns with the IPCC's intermediate emissions scenario (SSP2-4.5). We also use the SSP2-4.5 (intermediate emissions) and SSP5-8.5 (highest emissions) scenarios in our bottom-up asset-level physical risk and resilience assessments. See page 79 for more information.

There are no portfolio adjustments made to the Group's medium- to long-term plan under the various scenarios. As good practice on scenario analysis and climate modelling evolves, we will continue to evaluate the robustness of our assessments of climate-related risks and opportunities, drawing on more recently published studies and analysis.

### Scenario analysis temperature pathways (to 2100)



## Our core scenarios

### Conviction

This is our “central case” scenario and underlies strategic planning and portfolio investment decisions across the Group. Consequently, we limit disclosure of our detailed assumptions. In this scenario, countries are expected to electrify and decarbonise at a moderate pace, with increasing awareness of climate-related physical risks prompting more progressive policy action over time. Climate policies in Conviction remain more ambitious than in Resilience, although overall climate ambition has moderated compared to prior expectations. This results in an estimated temperature rise of approximately 2.1°C to 2.3°C by 2100, where the lower end assumes developing countries achieve stated net zero targets post-2050 and the upper end assumes a delay of one to 2 decades. Developed economy targets are nearer term and introduce less uncertainty. The uncertainty reflects the highly unpredictable decarbonisation pathways of non-OECD countries beyond 2050 and does not materially affect group value.

Real gross domestic product (GDP) grows at 2.2% between 2023–2050, but energy intensity of GDP reduces approximately

2.1% per year due to sectoral shifts and greater efficiency. For the next decade, greenhouse gas (GHG) emissions are slightly higher than those in the Resilience scenario due to a higher GDP, but emissions then decline, although not as quickly as previously anticipated, as low-carbon electrification expands to supply over half of final energy by 2050. The impact on corporate balance sheets will be mixed – overall, although carbon pricing varies by region, it will increase costs. GDP growth and the global energy transition are expected to increase demand for copper, lithium and aluminium through to 2050. Steel demand is expected to grow more modestly, and incentives to recycle scrap increase. Lower quality iron ore products are expected to receive greater discounts. Additionally, near-term costs for low-carbon technologies in developed economies may be higher due to technology maturity and investment conditions, while lower carbon prices could slow adoption.

Updates to inputs and assumptions this year reflect changes in global growth and climate ambition outlook and do not result in a significant impact on our overall business strategy.

### Resilience

Weaker governance, declining global trade, and lower economic growth lead to less effective climate action. Real GDP growth only averages 1.6% between 2023 and 2050. Lower economic growth and a slower energy transition lead to lower commodity demand and prices across all time periods compared to Conviction. Lower policy ambition and the inability of the international community to tackle carbon leakage without resorting to protectionism leads to climate policies advancing sporadically and in an uncoordinated way. Slower global climate action and lower commodity prices delay the development and deployment of low-carbon

technologies, potentially pushing progress on hard-to-abate emissions back by a decade or more. In regions where we operate emissions-intensive assets, this could hinder our ability to meet decarbonisation targets and reduce long-term competitiveness. Overall, there is still a 38% reduction (relative to 2025) in global GHG emissions by 2050. The result is a temperature rise of around 2.5°C by 2100. Consequently, climate-related weather events and natural disasters become more frequent and severe in this scenario but are met by fragmented and variable policy responses.

### Aspirational Leadership scenario 1.5°C

This scenario reflects our view of a world of high economic growth, significant social change and accelerated climate action that achieves net zero emissions by mid-century. While GDP growth is similar to that in our Conviction scenario, significantly more ambitious climate policy limits warming to 1.5°C (aligning with SSP1-1.9). Stronger climate ambition is expected to be accompanied by more supportive policy frameworks that accelerate the development and adoption of low-carbon technologies. This scenario affects our balance sheet in different ways and is subject to great uncertainty. Overall, in Aspirational Leadership the Group’s economic performance would fall between Conviction and Resilience. While higher scrap use reduces the medium-term demand for Pilbara products, increased carbon pricing and penalties boost long-term demand for high-grade iron ore. Aluminium demand growth is limited in

the short term, but increases in the longer term. Copper demand grows due to increasing electrification, strong GDP growth, and accelerated electric vehicle (EV) penetration. These trends also support minerals projects.

Despite global agreements reached in Glasgow and Dubai, emissions today continue to rise, making the 1.5°C goal of the Paris Agreement unlikely to be achieved. Overall, based on the Aspirational Leadership scenario pricing outcomes, and with all other assumptions remaining consistent with those applied to our 2025 financial statements, we do not currently envisage a material adverse impact of the 1.5°C Paris-aligned sensitivity on asset carrying values, remaining useful life, or closure and rehabilitation provisions for the Group. It is possible that other factors may arise in the future, which are not known today, that may impact this assessment.

### Additional scenario parameters

The next table shows some of the key data derived from our internal macroeconomic and energy models that form the basis for all our long-term commodity analysis. Changes in scenario inputs reflect revised methodologies and calculations. We now assume higher energy consumption through to 2050, with differences becoming more pronounced beyond 2050. This results in a wider temperature range in our conviction scenario, now 2.1–2.3°C. Carbon prices are slightly lower than previous assumptions, but this does not directly translate into higher emissions, as other policies continue to influence outcomes.

Key scenario metrics	Base year	Conviction		Resilience	
		2023	2030	2023–2050 CAGR	2030
Average exposed carbon price, (2025 \$/t CO <sub>2</sub> e) <sup>1</sup>		37	70	6.3%	69
Global GHG emissions, (Gt CO <sub>2</sub> e)		55	57	-1.6%	51
Global CO <sub>2</sub> combustion emissions, (Gt CO <sub>2</sub> ) <sup>2</sup>		34	34	-2.8%	31
Global final energy demand, exajoule (EJ)		445	481	0.5%	455
Electricity share of final energy		21%	25%	3.6% <sup>3</sup>	24%
Non-fossil share of electricity generation		46%	58%	6.2% <sup>3</sup>	60%

1. Simple unweighted average across Australian, European and North American national carbon schemes. This is a simplified representation of regional, and in some cases sub-regional, level analysis.

2. While total GHG emissions is the primary metric for estimating global warming, CO<sub>2</sub> combustion emissions give a clearer picture of the energy transition in the power and industrial sectors.

3. Indicates annual % growth of total electricity generation and non-fossil electricity generation.

## Portfolio resilience

Our CAP is designed to address material climate-related risks and opportunities identified across a range of scenarios and time horizons. It integrates actions to mitigate transition risks such as stricter carbon regulations, uneven climate policies and social licence to operate, and to capture opportunities from the growing demand for materials essential to the global energy transition.

We have assessed the resilience of our portfolio under multiple transition scenarios aligned with 1.5°C, 2.1–2.3°C, and 2.5°C outcomes. These assessments consider factors such as emission intensity relative to industry peers, regional exposure to climate regulations, and product suitability for downstream decarbonisation. Our economic performance is stronger in Conviction than in Resilience, where there is higher GDP growth and a faster low-carbon transition. In Aspirational Leadership, higher carbon penalties and potential impacts on demand for mid- and lower-grade iron ore result in mixed performance for iron ore, but stronger demand for other metals than in Conviction.

Key elements of the plan include reducing operational emissions through renewable electricity deployment, transitioning mining operations away from diesel, and lowering process emissions in smelting and refining. These measures strengthen resilience under all scenarios considered and support delivery of our 2030 and 2050 emissions targets, while enabling a just and orderly transition. See pages 55–67 for more information on our CAP, including decarbonisation strategy, Scope 3 approach, and transition-related spend.

## Financial resources and flexibility

Financial resources remain available to support our decarbonisation strategy (see page 58). Our Group capital allocation framework guides investment decisions that support both growth and climate-related initiatives. We maintain flexibility to respond to emerging risks and opportunities, as demonstrated by our ability to fund major growth projects such as copper at Oyu Tolgoi, high-grade iron ore at Simandou, and lithium at Rincon. In addition, our recent acquisitions show the availability of funds to pursue inorganic growth opportunities aligned with our strategy.

## Asset redeployment and portfolio flexibility

We regularly review our portfolio to ensure alignment with strategic priorities and climate objectives. This includes divesting assets that do not meet return criteria or strategic priorities, as evidenced by the currently ongoing strategic review of businesses from our former Minerals product group. Our approach ensures continued disciplined investment in organic growth and flexibility to repurpose or upgrade existing assets to support climate resilience.

## Current and planned investments

Our planned investments in decarbonisation and growth are embedded in our operations and capital plans (see page 58). These include renewable electricity deployment, electrification of mining fleets, and process innovation in smelting and refining. Our ambition remains to grow production of transition materials by approximately 3%, supported by capital allocation and major projects across our global portfolio.

Through disciplined capital allocation, operational decarbonisation, and portfolio flexibility, we are resilient to identified climate-related risks and well-positioned to capture opportunities arising from the global energy transition.

## Determining the financial impact of climate-related risks and opportunities

Climate-related risks and opportunities (CROs) can affect our financial position, financial performance and cash flows in the current reporting period (current financial effects) and in future periods (anticipated financial effects).

Information on the current impacts of climate change and the execution of our climate change strategy on our financial statements is available on pages 161–164, and has also been referenced alongside each relevant CRO on page 76.

Based on information to date, and where separately identifiable, none of the identified climate-related risks or opportunities are expected to result in a material adjustment to the carrying amounts of assets and liabilities disclosed in the financial statements within the next annual reporting period.

Anticipated portfolio impacts derived from scenario analysis are subject to inherent uncertainty due to multiple interdependent estimates and assumptions. Our macroeconomic modelling incorporates a range of variables and, as a result, isolating and measuring the anticipated impact of specific CROs can be challenging. Due to these circumstances, it is not currently possible to disclose quantitative financial impacts for certain CROs. Instead, to disclose the potential impacts of these on Group performance, we have provided qualitative narrative on each CRO's impact, how outcomes may differ under our Resilience and Aspirational scenarios, a link to identified current impacts on the financial statements, and a relative impact range<sup>1</sup> across our portfolio over the short, medium and long term.

Quantitative financial impacts have not been disclosed for the following CROs.

**Energy transition commodity demand:** Demand for our materials is influenced by a range of factors, including the energy transition, broader macroeconomic conditions, supply availability and commodity prices. As these drivers are interrelated, it is not possible to separately identify or quantify the financial impact of demand attributable to the energy transition from general market demand, as commodity prices and volumes reflect the combined effect of multiple factors operating simultaneously. While not separately identifiable, see page 76 for our analysis of the anticipated increase in overall commodity demand.

**Global technology development (opportunity):** Our technology development opportunity is primarily focused on enhancing competitiveness over the medium to long term. While these technologies are already informing strategic positioning, most remain in development or pilot stages. Their short-term impact on competitiveness is still emerging and being shaped by ongoing technology development and broader macroeconomic factors. While not yet quantified, we expect decarbonisation technologies to improve asset competitiveness by potentially increasing revenue through demand for low-carbon products, reducing carbon costs, and strengthening cash flows. Anticipated carbon costs have been provided on page 76.

**Social licence to operate and access orebodies:** Our social licence is critical to our operations and is embedded across our business. The impact of these risks, and the climate-related influence on licensing, is difficult to isolate. They are inherently qualitative and depend on factors such as stakeholder trust, community relationships and permitting processes, all of which cannot be consistently expressed in monetary or numerical terms.

**Physical risks:** All of our inventory and PPE (\$91.6 billion), which together account for 72% of our total assets, are exposed to some degree of unmitigated physical climate-related risk. Given the variability of physical hazards, modelling approaches and inherent uncertainty in outcomes, we are unable to produce precise quantitative estimates of anticipated financial impacts under each scenario<sup>2</sup>. Instead, we assess potential exposure and impact using our Value at Risk (VaR) analysis, as outlined on page 80, and supplement this with qualitative assessments on page 78.

Any material current physical climate-related impacts are disclosed in our financial statements as, among other line items, physical damage or disruption could primarily affect asset carrying values and cash flows. No such instances were noted in FY2025.

Separately, costs to enhance asset resilience are embedded within our operational and capital expenditure processes and therefore cannot be separately identified.

1. The relative impact disclosed has been assessed under our Conviction scenario, considering the potential portfolio effect each individual CRO may have compared to other CROs identified. These potential impacts carry inherent uncertainty due to their dependence on multiple forward-looking assumptions.

2. See "Considerations and limitations" on page 79.

## Climate-related risks and opportunities

Key: L = Low M = Medium H = High

### Portfolio risks and opportunities in the low-carbon transition

We address climate-related risks and opportunities through our CAP, which sets out current and planned actions to mitigate identified risks and capture opportunities. These actions include changes to strategy and resource allocation, process improvements, renewable energy deployment, and collaboration across our value chain. The table below summarises the impact of material climate-related risks under our scenarios and the actions within our CAP to mitigate them.

- Risk
- Opportunity

	Relative impact over time (Conviction)			
		Short-term	Medium-term	Long-term
	M	M	H	
<b>Energy transition commodity demand</b> ● ○				
Customer interest in materials required for the energy transition is growing and may increasingly influence future pricing and demand, primarily leading to an increase in revenue. We see an opportunity in the short term to strengthen our role as a key supplier of these materials, while positioning for medium- and long-term growth as demand for copper, aluminium, lithium, and high-grade iron ore is expected to grow, particularly in markets prioritising decarbonisation.				Financial statement impact: <ul style="list-style-type: none"> <li>• Transition materials metrics: consolidated sales revenue, capital expenditure, operating assets, page 83.</li> <li>• Estimation of asset lives, page 188.</li> </ul>
Underlying EBITDA <sup>1</sup> is projected to increase by around 40–50% from the 2024 baseline to 2030 (based on long-run consensus prices, consolidated volume growth, and unit cost reductions) as a result of volume growth supported by the diversification of our portfolio. Demand growth across key commodities underpins this outlook. Aluminium is forecast to grow by ~1.2x by 2035, lithium by ~3.4x, copper by ~1.3x, and steel by ~1.1x, driven by electrification, energy storage, and infrastructure expansion in markets prioritising decarbonisation. These trends highlight the potential to capture value through portfolio diversification and supply growth as global energy systems transition. Our production outlook on a CuEq basis shows a 3% CAGR to 2030, supported by the addition of Simandou and our lithium assets at Arcadium and Rincon.				
The pace of the transition in the value chain, such as the grade and quality of these commodities, influences portfolio composition, capital allocation, and technology investment decisions over the medium to long term. By partnering with technology providers to develop low-carbon pathways and adapt to evolving product specifications, we can better meet customer expectations, support portfolio growth, and capture value in a shifting market landscape. This includes potential upside from emerging green premiums for low-carbon products.				
<b>Global technology development</b> ● ○	L	M	M to H	
Low-carbon technologies such as ELYSIS™, Évolys™ and hydrogen-based processing are expected to reduce hard-to-abate emissions and enhance competitiveness over the medium to long term. These technologies offer potential to reshape legacy operations and support strategic differentiation across key parts of our value chain.				Financial statement impact: <ul style="list-style-type: none"> <li>• Decarbonisation spend, page 163 and 180.</li> <li>• Decarbonisation capital commitments, page 226.</li> <li>• Carbon abatement spend on procurement of carbon units and renewable energy certificates, page 187.</li> <li>• Additions to property, plant and equipment with a primary purpose of reducing carbon emissions, page 190.</li> </ul>
While work on low-emission technologies continues, some breakthroughs are likely to take longer to achieve than initially anticipated, creating uncertainty around their availability at scale. This means that residual emissions from hard-to-abate areas for us, our industry, and more broadly the world, may remain elevated and exposed to carbon pricing for an extended period, impacting our ability to achieve net zero in 2050 or beyond.				
Post-2030 abatement projects are typically high-cost and capital-intensive, relying on industry-wide technological breakthroughs to transform decades- to centuries-old industrial processes. These factors are shaping our strategic planning and portfolio decisions, with potential financial impacts such as higher capital requirements, alongside slower progress in achieving long-term emissions reduction targets.				
Currently, 59% of our Scope 1 and 2 emissions (18.5 Mt CO <sub>2</sub> e) are classified as hard-to-abate <sup>2</sup> , with \$0.56 billion spent/committed co-investment in industrial scale R&D to support solutions for hard-to-abate emissions.				
Our total decarbonisation spend for 2025 was \$612 million (2024: \$589 million) and our updated capital expenditure forecast is \$1.2 billion to 2030. Further details on our decarbonisation capital allocation can be found on page 58.				
<b>Climate policy and regulation</b> ●	L	M	H	
Increasing regulatory costs, uneven climate policies and border tariffs are impacting asset competitiveness and risk fragmenting markets if not implemented appropriately. Our operations are facing growing exposure to climate-related regulations, particularly carbon pricing in Australia, Canada and the European Union. As transitional support measures phase out, assets in these regions risk losing cost competitiveness compared to peers in lower-carbon jurisdictions.				Financial statement impact: <ul style="list-style-type: none"> <li>• Carbon tax sensitivity on impairment charge, page 175.</li> <li>• Carbon abatement spend on procurement of carbon units and renewable energy certificates, page 187.</li> <li>• Useful economic lives of power generating assets, page 191.</li> <li>• Renewable PPAs accounted for as derivatives, page 206.</li> </ul>
Currently, 82% of our global Scope 1 GHG emissions (19.6 Mt CO <sub>2</sub> e) are covered by emissions-limiting frameworks, exposing a substantial portion of our portfolio to rising compliance costs. Currently, carbon costs <sup>3</sup> are <\$0.1 billion, with annual penalties potentially reaching \$0.3 billion by 2030 and \$2.6 billion by 2040 without further emissions reductions.				
Our continued, but declining, reliance on fossil fuels also increases exposure to both carbon costs and energy price volatility, with ~7% of our operating costs (~\$3.1 billion) attributable to fossil fuels. <sup>4</sup>				
<b>Social licence and ability to access orebodies</b> ●	M	H	H	
Varying by jurisdiction, climate action and support for a just transition are becoming increasingly critical for securing a social licence to operate and for supporting the competitiveness of both new greenfield developments and existing operations. This is driven by rising stakeholder expectations, as well as statutory requirements and national emissions targets in key jurisdictions.				Financial statement impact: <ul style="list-style-type: none"> <li>• Close-down, restoration and environmental cost, page 194.</li> </ul>
This is relevant for projects in the Pilbara and Simandou, where community and investor scrutiny is high. Meeting decarbonisation and sustainability expectations is important, as delays or restrictions could lead to increased project costs (both operating and capital expenditure), slower delivery of growth volumes, or – in extreme cases – project cancellation.				
While decarbonisation is the primary focus of this risk, broader environmental factors such as biodiversity, water use, and land impacts also play a role and may influence project outcomes. Additional detail on biodiversity and our water management risks and responses is on pages 47–48.				

1. Forward looking view of underlying EBITDA is not a profit forecast. This consolidated measure, presented in nominal terms, is calculated using long-run consensus prices, volume growth (on a consolidated basis) and unit cost decreases presented, using 2024 as a baseline.
2. Hard-to-abate emissions are those requiring technological advancement to enable viable long-term abatement solutions. In our context, this includes emissions associated with anodes and alumina processing, as well as diesel-related emissions that will need to be addressed through electrification.
3. Real terms (2025 prices).
4. This includes operating costs associated with fuel, natural gas, diesel, coal and non-renewable power (including grid electricity and other non-renewable energy sources as defined in the Energy table on page 82).

Impacts under alternate scenarios	Current and anticipated direct and indirect mitigation actions
<p><b>Resilience</b> – Slower economic growth and a delayed energy transition reduce demand and pricing for key transition materials, such as copper, lithium, and aluminium, across all timeframes. These materials are central to our growth strategy, and evolving customer expectations and uncertainty in processing technologies pose risks to competitiveness and revenue. Demand for high-grade iron ore also remains subdued in the medium to long term compared to more ambitious scenarios.</p> <p><b>Aspirational Leadership</b> – Strong long-term demand for transition materials helps offset slightly lower demand for lower-grade iron ore. Annual demand for low-carbon aluminium and copper is expected to exceed levels seen in the Conviction scenario. Lithium continues to show robust growth, supporting portfolio expansion in transition materials.</p>	<p>We are scaling up production of transition materials to meet rising demand and evolving customer expectations. Our goal is to grow total output by approximately 3% per year (copper equivalent basis), supported by targeted investments in lithium growth through the Rincon project in Argentina and acquisition of Arcadium Lithium, copper expansions at Kennecott (US), and the development of high-grade iron ore capacity at Simandou (Guinea).</p> <p>We are also partnering with technology providers to develop low-carbon solutions suited to a broader range of ore grades. These efforts are embedded in our capital planning and portfolio decisions, helping to maintain market competitiveness over the long term.</p> <p>See page 6 for further details on our Group strategic context.</p>
<p><b>Resilience</b> – Slower global climate action and lower commodity prices delay the development and deployment of low-carbon technologies, potentially pushing progress on hard-to-abate emissions back by a decade or more. In regions like Australia, where we operate emissions-intensive assets, this could hinder our ability to meet decarbonisation targets and reduce long-term competitiveness.</p> <p><b>Aspirational Leadership</b> – Stronger climate ambition is expected to be accompanied by more supportive policy frameworks to accelerate the development and adoption of low-carbon technologies. In the short to medium term, this enables meaningful progress in reducing hard-to-abate emissions across key operations. Over the long term, successful deployment of these technologies can lower production costs and enhance competitiveness in a low-carbon economy.</p>	<p>We are advancing the development and adoption of low-carbon technologies as a core pillar of our decarbonisation strategy – aimed at reducing emissions, lowering production costs, and strengthening long-term competitiveness.</p> <p>Beyond 2030, abatement will increasingly depend on capital-intensive technologies that require further innovation, industry collaboration, and supportive policy frameworks to become commercially viable. We continue to collaborate with industry partners and engage with governments to support technology development, deployment and enabling policy settings.</p> <p>In aluminium, we are progressing ELYSIS™ and are also piloting hydrogen-based process heat through the Yarwun Hydrogen Calcination Pilot in Queensland. However, we have also experienced delays in deploying hard-to-abate technologies, including BEHT trials, due to technical complexity and low readiness, and uncertainty around renewable diesel expansion given high costs and unclear policy settings.</p> <p>For more detail on the low-carbon technologies we are piloting to address hard-to-abate emissions, refer to our 2025 CAP update on pages 59–61.</p>
<p><b>Resilience</b> – Climate policies remain uneven. Carbon pricing stays low in regions like Guinea, while countries such as Australia see moderate cost increases. Weak global coordination limits near-term pressure but adds long-term uncertainty and dampens low-carbon investment. Slow energy transition prolongs fossil fuel reliance, heightening exposure to price swings and future policy shifts.</p> <p><b>Aspirational Leadership</b> – Policies become ambitious and aligned, with large carbon price increases in key jurisdictions like Australia, Canada and Europe, increasing short-term costs. High-grade, low-emission iron ore assets (eg Simandou, IOC) gain advantage as demand shifts to greener materials. Faster decarbonisation expands renewable access, enabling asset repowering, reducing fossil volatility, and improving long-term cost stability. These developments could also significantly shape the competitiveness of Aluminium, depending on how regional energy and policy trends unfold.</p>	<p>We are reducing exposure to carbon pricing and regulation by decarbonising operations. Our CAP targets a 50% reduction in Scope 1 and 2 emissions by 2030 (vs 2018) and net zero by 2050. A key focus is shifting from fossil fuels to low-emissions energy. We already source 77% of our electricity from renewables, and are aiming to increase this to around 90% by 2030 through strategic investments and supply agreements to secure renewable power and reduce our emissions. We apply an internal carbon price to help understand the impact of potential future carbon policies and inform investment decisions. See our 2025 CAP update (pages 59–61) for details.</p>
<p><b>Resilience</b> – Slower global climate action means stakeholder expectations around decarbonisation evolve more gradually, easing short-term pressure. However, in jurisdictions such as Australia and Canada, expectations from regulators, investors, and communities will still rise over time. If not addressed, this could create medium- to long-term challenges in securing approvals for new projects and maintaining support for existing operations.</p> <p><b>Aspirational Leadership</b> – Coordinated and ambitious climate action drives consistently high stakeholder expectations across all time horizons. Meeting these expectations is essential to maintain access to capital, secure project approvals, and sustain our licence to operate.</p>	<p>Stakeholder expectations around climate change and decarbonisation are increasingly tied to our ability to maintain a social licence to operate. Our CAP provides a strategic framework that guides investment decisions and project development across the business, shaping how projects are assessed and approved, and integrating just transition principles into planning and decision-making.</p> <p>Our CAP helps to inform site-level planning and approvals. Climate-related risks and opportunities are evaluated through environmental impact assessments and life cycle emissions analyses, alongside just transition-focused impact assessments, enabling site teams to assess long-term climate and social impacts, support stakeholder and community engagement, and ensure alignment with regulatory requirements and stakeholder expectations. We also have a portfolio of nature-based solutions projects, co-designed with communities and local partners to deliver positive outcomes for people, nature and climate. This helps minimise adverse impacts and optimise socio-economic opportunities, supporting our social licence to operate.</p> <p>See page 69 for further detail on our just transition approach.</p>

## Physical climate risk

We have assessed the current and anticipated impacts of physical climate risks on our business across short- (0 to 2 years), medium- (2 to 10 years), and long-term (>10 years) horizons, outlining our ongoing and planned adaptation actions. Our approach integrates continuous measures to enhance resilience, applying advanced weather and climate data for operational planning, emergency response, and long-term risk management, ranging from short-term severe weather forecasts to long-term climate projections and flood modelling, as described in more detail below.

Risk description	Direct and indirect actions to adapt to risk
<b>Acute</b>	
<b>Damage to infrastructure from extreme weather events, resulting in operational and supply chain disruption</b>	
<b>Coastal infrastructure</b>	<p>Coastal sites are exposed to hazards including cyclones, storm surge, and inundation, which can damage critical assets such as shipping berths, ship loaders, stackers/reclaimers, and conveyors. This results in short-term emergency repairs and delays in goods movement. Over time, financial impacts may escalate due to rising maintenance costs, reduced asset life, and increased logistics complexity. Tailings storage facilities (TSFs) at coastal locations may also face erosion or containment risks.</p> <p>In both the intermediate and high emissions scenarios, by 2050, eastern Australia and New Zealand are currently classified as high risk with over a four-fold increase in annualised damage over this period. This is principally due to the potential effects of coastal inundation, surface water flooding and cyclonic winds. Other notable increases in risk are in Western Australia (an approximate 110% increase). The damages in the Pilbara are significant for the ports, but the mines and inland sites which represent the majority of asset values are relatively safe from climate damage.</p>
<b>Mining infrastructure</b>	<p>Inland operations face heightened flood risk and geotechnical instability due to more intense and variable rainfall and storms. Infrastructure such as rail lines, production equipment, and electrical systems (motors, generators, substations, transformers) are vulnerable to inundation, wash-outs, and lightning damage. Short-term impacts include emergency response activation and asset downtime. Medium- to longer-term consequences include increased maintenance needs, asset degradation, and potential production losses. TSFs are also at risk of containment breaches.</p> <p>Annualised damage risk is currently relatively low across several inland regions, with both eastern and western Canada projected to experience approximately a 60% increase by 2050. Riverine flooding is expected to see the largest increase in site exposure under a high emissions scenario.</p>
<b>Health and safety risk to the workforce, and damage to mining infrastructure from extreme heat stress</b>	<p>Rising maximum temperatures and more frequent heatwaves are increasing health and safety risks for our workforce, including dehydration and reduced productivity. Intense heat also affects the reliability of rail, mining and electrical infrastructure, with short-term impacts such as equipment outages and medium- to long-term effects including accelerated wear and increased maintenance costs.</p> <p>Productivity loss is expected to intensify in eastern Australia, New Zealand and eastern Canada by over 100% through to 2050 under a high emissions scenario, driven by increasing coastal and riverine flooding risks. Heat-related risks predominantly affect Western Australia, but remain consistently low in all regions under future emissions scenarios.</p>
<b>Chronic</b>	<p><b>Water shortages and seasonal variability affecting operations and energy supply</b></p> <p>Medium- to long-term changes in rainfall patterns and drought conditions are increasing the risk of water shortages across our operations. These shortages affect production, water treatment, dust control, environmental compliance and community relations. Seasonal changes to hydropower inflows are also impacting electricity generation and aluminium smelter operations. Financial impacts include increased operating costs and potential production losses if water availability is constrained.</p> <p>Drought risk has not been incorporated into the current Value at Risk (VaR) assessment, however, the existing pressures on water supply are expected to intensify as climate change drives more frequent and severe periods of water scarcity. Please see pages 47–48 for further detail on our water management risks and responses.</p> <p>See page 186 for the impact of water rights on our financial statements.</p> <p><b>Higher average temperatures and changing rainfall patterns impacting forest fire management and closure planning</b></p> <p>Over the medium to long term, there is an increased risk of wildfires due to prolonged heat and dry conditions, posing threats to workforce safety, operational infrastructure, and surrounding ecosystems. Closure objectives in terms of landform resilience and environmental management will also be impacted by these long-term climate shifts. Financial impacts include increased emergency response costs, asset damage, and long-term maintenance requirements to meet environmental obligations.</p> <p>Forest fires are expected to drive annualised damage risk in eastern Australia and South Africa through to 2050 under all future emissions scenarios.</p>

## Modelling financial exposure to physical climate risk

We have continued to progress our Value at Risk (VaR) analysis by advancing physical climate change risk assessments through financial modelling at the product group level. In 2025, we completed assessments for our Aluminium & Lithium, Copper and Iron Ore product groups. These assessments consider the potential financial impacts of physical climate risks, including asset damage and expected annual downtime, providing a view on business interruption losses, thereby supporting a more robust understanding of risk exposure across key parts of our portfolio.

Our climate physical risk modelling analysis, undertaken in collaboration with an external consultant, estimated expected financial losses from damage to individual assets, across various time horizons and emission scenarios caused by physical climate hazards. This modelling process and methodology considers the following:

**1) Asset portfolio:** Includes a significant breadth of assets, including mining assets and critical infrastructure components integral to our operations. Only active industrial and mining facilities were modelled, including non-managed operations. Corporate offices and remote operation centres have been modelled but are not presented in this analysis. Assets in our closure portfolio have not been modelled, but are considered in bottom-up physical risk and resilience assessments.

Each asset was assigned an asset archetype to represent its vulnerability to different physical climate hazards. Archetypes reflect typical construction types and operational characteristics and are used to estimate how climate hazards may affect different components of an asset. These archetypes form the basis for calculating expected damage and productivity loss for each climate scenario and hazard.

**2) Climate scenarios, time horizons and hazards:** Multiple future time horizons are modelled, including 2030, 2040 and 2050. Long-term climate projections, including CMIP5 and CMIP6 datasets, were used to support hazard projections across all time horizons. Nine climate hazards are modelled in this analysis, including flooding (riverine and surface water), coastal inundation, including sea level rise, extreme heat, cyclonic wind, extreme wind, soil subsidence, forest fire and freeze-thaw.

Emission scenario	Description and outcome
Intermediate emissions scenario	Emissions peak around 2040 and then decline, reflecting moderate global mitigation efforts. Relative to the 1986–2005 period, global mean surface temperature changes are likely to be 1.1°C–2.6°C higher by 2100, resulting in moderately increased physical climate impacts.
IPCC Representative Concentration Pathway 4.5 (RCP4.5)   SSP2-4.5 <sup>1</sup>	
High emissions scenario	Emissions continue to rise throughout the 21st century under limited global mitigation, and is considered a worst-case climate change scenario. Relative to the 1986–2005 period, global mean surface temperature changes are likely to be 2.6°C–4.8°C higher by 2100, leading to substantially more severe physical climate impacts.
IPCC Representative Concentration Pathway 8.5 (RCP8.5)   SSP5-8.5 <sup>1</sup>	

1. In the near term, RCP and SSP projections closely align and therefore can be considered as comparable.

The intermediate scenario (RCP4.5) assumes global action begins quickly and escalates steadily, capping temperatures around 2°C through a faster transition and immediate climate action. The high-emissions scenario assumes climate action is not achieved, with emissions continuing to rise throughout the century and limited action by governments and businesses.

These scenarios enable the Group to assess the resilience of its strategy and operations by stress-testing performance under varying temperature and emissions trajectories, identifying potential vulnerabilities, and informing adaptation measures across the short-, medium-, and long-term horizons discussed on page 78.

**3) Annualised damage (AD):** The output of the modelling is calculated for each asset under various climate scenarios, time horizons and hazards.

Asset-specific outputs have been aggregated to the site, region and Group level. Site-level risk was calculated by combining hazard results with asset replacement values, using weighted averages where available. Where individual asset valuations were not available, site level impacts were assessed on a simple average basis. These results were then aggregated to regional level by weighting each site's results by its replacement value, providing a consolidated view of physical climate risk across broader operating areas.

AD, expressed as a percentage, represents the expected average annual damage to an asset attributable to climate-related hazards relative to a fixed value (e.g. \$1 million). As such, an AD of 0.5% would mean that for every \$1 million of exposure, \$5,000 could be damaged, on average, in any given year.

Asset-specific outputs have been aggregated to the site, region and Group level. Risk categorisation is based on the AD values, with thresholds set at <0.2% for low AD risk, 0.2–1% for medium AD risk, and >1% for high AD risk.

**4) Productivity loss (PL):** Each asset is evaluated under each climate scenario, time horizon and hazard. PL, expressed as a percentage, is the average proportion of the year an asset is inoperable due to a climate-related hazard. For example, a PL of 0.5% translates to an asset losing 1.8 days of operation in a given year due to climate conditions.

Estimates consider a stationary “do nothing” approach for our operating assets and do not consider present or future controls, or adaptation or resilience projects that will likely materially impact AD or PL costs.

Due to the complexity of our value chain and the increased subjectivity of loss attribution at present, losses associated with business interruption or productivity loss are disclosed on a qualitative basis only.

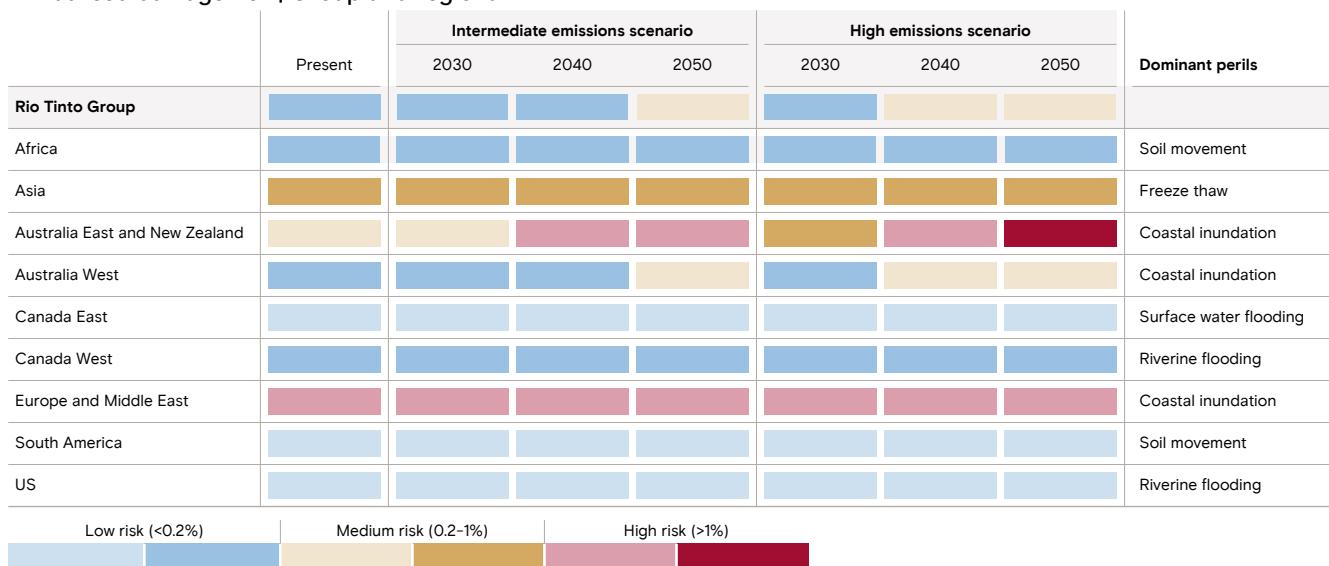
## Considerations and limitations

Our climate physical risk modelling acknowledges limitations and uncertainties due to the dynamic nature of the earth's climate and unpredictable future GHG emissions. These models represent plausible futures, not predictions, and are useful for assessing risks and informing strategic decisions.

The accuracy of our analysis depends on the quality of asset data and assumes no changes in operations or design standards. Each asset is assigned an archetype, which may not fully capture its unique characteristic, affecting the risk profile, and site-level results may be less representative where detailed inputs were unavailable. The modelling reflects only climate-related physical hazards and current asset configurations, and does not include network effects or wider supply-chain impacts. This analysis is iterative, evolving with new insights and projections. We plan to update it regularly to reflect changes in our asset base, guiding our physical resilience program.

 For more information on physical risk and resilience, see [riotinto.com/climaterisk](http://riotinto.com/climaterisk)

## Annualised damage risk | Group and regional



## Productivity loss results

The table above describes the risk to the portfolio as a result of annualised damage, exclusive of business interruption or productivity loss impacts. Initial analysis indicates that assets in Western Australia are most likely to be impacted by productivity losses as a result of climate change. The number of assets at risk of significant disruption is forecast to more than double under a high emissions scenario, driven by a significant rise in coastal inundation risk. Assets in Europe are not at risk of significant PL disruption in the short term, however from 2040 onwards the risk from coastal inundation increases. Sites in other regions are lower risk, with less than 1% of assets facing significant disruption from climate change, even by 2050.

Overall, RCPs used follow broadly the same trajectory to 2040 before diverging, largely owing to carbon emissions already embedded within the climate system. Therefore, physical risk impacts out to 2040 will likely remain similar across all scenarios assessed, with the level of physical risk post-2040 differentiating more strongly under each climate scenario.

Where specific impacts have been identified through our Climate Change Resilience Assessments, they have been noted accordingly. Our adaptation actions remain consistent across all scenarios, supported by investments in sustaining and development capital to embed resilience into both asset design and ongoing operations. We remain resilient to identified physical climate risks due to our robust adaptation and resilience measures.

## Climate-related metrics and data

We disclose the quantitative climate-related targets we have set, supported by key metrics that help us track progress against our decarbonisation objectives and manage our climate-related risks and opportunities. We have also disclosed other sustainability-related KPIs, metrics and targets aligned with our objective of maintaining strong sustainability and social licence credentials, summarised on page 35 and detailed within the “Our approach to sustainability” section of this Annual Report. The table below presents the metrics used to assess performance against our climate-related targets.

Climate-related target <sup>1,2</sup>	Climate related metric	
Reduce emissions from our own operations 50% by 2030, net zero by 2050	– Scope 1 and 2 emissions from our operations	
Steel value chain targets		
Alumina decarbonisation targets	– See Scope 3 emissions: Partner to decarbonise our value chains table below.	
Shipping decarbonisation targets		
Procurement decarbonisation targets		
Cross-industry metrics		Reference
Amount and percentage of assets/business activities vulnerable to climate-related transition risks	– % and amount of Scope 1 GHG emissions covered under an emissions-limiting regulation, see table below – % and amount of hard-to-abate emissions, page 76 – % and amount of operating costs exposed to fossil fuels, page 76	
Amount and percentage of business activities vulnerable to climate-related physical risks	– % and amount of assets exposed to unmitigated physical risks, see page 75, supplemented by annualised damage risk score, page 80	
Amount and percentage of business activities aligned with climate-related opportunities	– Transition materials metrics: KTM and OTM production <sup>3</sup> , page 83 – % and amount of hard-to-abate emissions, page 76	
Capital expenditure, financing or investment deployed towards climate-related risks and opportunities	– Decarbonisation spend, page 58 – Transition materials metrics: capital expenditure, page 83	
Internal carbon price	– See page 73 for our internal carbon price range and scenario parameters used to inform consensus price forecasts.	
Percentage of executive management remuneration linked to climate-related considerations	– See pages 122-139 for our 2025 remuneration outcomes and the incorporation of climate-related measures in the STIP and LTIP.	

1. For the purposes of this disclosure, a climate-related target is a specific, measurable objective that includes a defined metric, baseline, and timeframe to track progress toward reducing greenhouse gas emissions or achieving other climate outcomes. Any other goal or objective that does not include these measurable elements is referred to as a climate-related commitment, which reflects a strategic aspiration rather than a formal target, and thus is not included in this table. Although these are not classified as formal climate-related targets for purposes of this disclosure, they still represent formal commitments and are intended to hold us accountable for progress toward our stated climate objectives.
2. The targets and commitments presented relate solely to those identified and adopted by Rio Tinto. In addition to these, we seek to comply with all applicable climate-related laws, regulations and policy frameworks that contribute to national or regional climate objectives, including mechanisms such as Nationally Determined Contributions (NDCs) and the Australian Safeguard Mechanism. While these frameworks establish requirements or objectives at a jurisdictional level, they are externally defined and are therefore not presented as Rio Tinto targets.
3. We define climate-related opportunities as production and capital expenditure on key transition materials and other transition materials, as identified by the CA100+ Net Zero Standard for Diversified Mining. The global energy transition, including growth in electric vehicles and renewable energy, is driving significant demand for aluminium, copper and lithium, creating an opportunity for us to be a leading supplier of these materials.

2025 Disaggregation of total gross Scope 1 and Scope 2 (location-based) GHG emissions (equity basis)	Scope 1	Scope 2	Total
Consolidated accounting group	14.4	2.7	17.1
Other investee (e.g. investment in associate and joint venture)	9.6	5.8	15.4
<b>Total</b>	<b>24.0</b>	<b>8.5</b>	<b>32.5</b>

This table is the disaggregation of Scope 1 and Scope 2 GHG emissions between the consolidated accounting group and other investees. The grouping is determined by the financial definitions, but the emissions are calculated using the equity share method and percentages of emissions per site aligned with the carbon accounting protocol. Scope 2 GHG emissions are location-based.

Scope 1 GHG emissions covered under an emissions-limiting regulation (Mt CO <sub>2</sub> e) (equity basis)	2025
Total gross global Scope 1 GHG emissions covered under emissions-limiting regulations (Mt CO <sub>2</sub> e)	19.6
Total gross global Scope 1 GHG (Mt CO <sub>2</sub> e)	24
% Global Scope 1 GHG emissions covered under an emissions-limiting regulation	82%

Emissions-limiting regulations applicable to Rio Tinto are listed in the *Scope 1, 2 and 3 Emissions Calculation and Climate Methodology – 2025 Addendum*, available at [riotinto.com/climatereporting](http://riotinto.com/climatereporting) (page 3).

### Carbon credits retired towards net emissions, actual equity basis

Project description	Carbon credit type	Project type	Mitigation activity type	Certification scheme	Location	Vintage	2025 Quantity retired for compliance	Quantity held for planned 2026 compliance (retired in 2026) <sup>1</sup>
Savanna fire management with Traditional Owner co-benefits	ACCU	Nature-based	Avoidance	Clean Energy Regulator	Australia	VY21-25	112,583	230,000
Human-induced regeneration	ACCU	Nature-based	Removal	Clean Energy Regulator	Australia	VY21-25	424,920	401,576
<b>Total</b>							<b>537,503</b>	<b>631,576</b>
<b>Total credits counted towards net emission for the current reporting period (year ended 31 December 2025)</b>							<b>1,169,079</b>	

1. This is estimated based on our Scope 1 emissions for the period 1 July – 31 December 2025. See further required detail in our *2025 Sustainability Fact Book* (available at [riotinto.com/sustainabilityreporting](http://riotinto.com/sustainabilityreporting), tab “carbon credits”); and our *2025 Scope 1, 2 and 3 Emissions Calculation and Climate Methodology – 2025 Addendum* (available at [riotinto.com/climatereporting](http://riotinto.com/climatereporting), page 3).

## Scope 1, 2 and 3 GHG emissions – actual equity basis

Equity greenhouse gas emissions (Mt CO <sub>2</sub> e)	2025	2024	2023	2022	2021
Scope 1 emissions	<b>24.0</b>	23.0	23.3	22.8	22.8
Scope 2: Market-based emissions <sup>1,2</sup>	<b>7.5</b>	6.9	9.3	9.6	10.1
<b>Total gross Scope 1 and Scope 2 (market-based) GHG emissions (equity basis)</b>	<b>31.5</b>	29.9	32.7	32.3	32.9
Carbon credits <sup>3</sup>	<b>1.2</b>	1.0	—	—	—
<b>Total net Scope 1 and Scope 2 GHG emissions (equity basis) (with carbon credits retired)</b>	<b>30.3</b>	28.8	32.7	32.3	32.9
Scope 2: Location-based emissions <sup>4</sup>	<b>8.5</b>	7.8	7.8	8.2	8.5
Scope 3 emissions	<b>575.7</b>	569.8	572.5	572.3	558.3
Operational emissions intensity (t CO <sub>2</sub> e/t Cu-eq)(equity) <sup>5</sup>	<b>6.1</b>	6.3	7.0	7.1	7.3
Direct CO <sub>2</sub> emissions from biologically sequestered carbon (eg CO <sub>2</sub> from burning biofuels/biomass) <sup>6</sup>	<b>0.8</b>	0.5	—	—	—

Queensland Alumina Limited (QAL) is a tolling company and is 80% owned by Rio Tinto and 20% owned by Rusal. However, as a result of the Australian Government's sanction measures, QAL is currently prevented from tolling for Rusal and Rio Tinto is currently utilising 100% of the tolling capacity at QAL. Our 2025 equity emissions and our 2018 baseline have been updated this year to include QAL emissions on the basis of Rio Tinto's 100% offtake of production.

1. Scope 2: market-based emission purchases reported as zero include Oyu Tolgoi, ISAL aluminium, Resolution Copper, Weipa, Richards Bay Minerals and Kennecott Copper with surrendered Renewable Energy Certificates (RECs). Escondida and QMM have contracts with energy attributes (EACs).
2. Scope 2: Market-based method counts commercial decisions to purchase the unique rights to renewable energy as zero emissions and applies a residual mix factor (or similar) to the remaining MWh purchased. The residual mix factor is typically equivalent to the grid intensity with renewable attributes that have been sold removed from the factor. Scope 2 emission factors are consistent with the Australian National Greenhouse and Energy Reporting Measurement Determination 2008 for Australian operations location-based reporting. For non-Australian operations, where possible, factors are sourced from public grid level data or electricity retailers. For market-based reporting, Scope 2 includes the use of RECs and all contracts where we have the exclusive rights to the renewable energy attributes.
3. Carbon credits used towards our 2025 net emissions calculation include Australian Carbon Credit Units (ACCUUs) that were retired for compliance for the period 1 January to 30 June 2025 plus a projection of the number of ACCUs we expect to retire for the period 1 July to 31 December 2025. This projection is based on our Scope 1 emissions for the period 1 July – 31 December 2025. For details, refer to the "Carbon credits" tab in our 2025 Sustainability Fact Book (available at [riotinto.com/sustainabilityreporting](http://riotinto.com/sustainabilityreporting)).
4. Location-based method reflects the emissions grid intensity of the location which the operation is located and includes the percentage of renewables that make up the total unadjusted grid intensity. Total gross Scope 1 and Scope 2 (location-based) GHG emissions (equity basis): 32.5 Mt CO<sub>2</sub>e.
5. Historical information for copper equivalent intensity has been restated in line with the 2025 review of commodity pricing to allow comparability over time.
6. GHG Protocol Corporate Accounting and Reporting Standard recommends disclosure of CO<sub>2</sub> emissions from biologically sequestered carbon for transparency. These are from biofuel use and are not classified as our Scope 1 emissions.

## Energy – equity basis

2025 Total energy use breakdown by product group	Aluminium & Lithium	Iron ore	Copper	Other	Energy use (PJ)	Electricity generation and use (GWh)
Total energy consumed (PJ)	379.1	32.3	59.4	46.0	516.8	65,104.0
% of renewable electricity used						77%

Energy consumption includes energy from all sources, including energy purchased from external sources and energy produced (self-generated). Energy reported excludes exports of energy to third parties.

Proposed updates to the IFRS S2 Climate-related Disclosures guidance includes energy purchased under power purchase agreements (PPAs) supported by renewable energy certificates (RECs) or guarantees of origin (GOs), direct contractual arrangements for renewable electricity supply, renewable electricity from self-generation, and renewable energy consumed from biomass-based fuels. Although these revisions have not yet been formally adopted, we have updated our reporting to reflect this definition, as it provides clearer alignment with the GHG Protocol Scope 2 Guidance on what is considered renewable energy under a market-based method, as well as with our existing methodologies.

In 2025, changes were announced in relation to Minerals portfolio and alternative product group naming and structure. Lithium is added in with the renamed "Aluminium and Lithium" PG, Iron ore of Canada moved into Iron Ore, Rio Tinto Iron and Titanium, Borates and Diamonds are reported in the table above under "Other".

For a more detailed breakdown of 2025 total energy use and electricity by Product Group, see the "Energy" tab in our 2025 Sustainability Fact Book (available at [riotinto.com/sustainabilityreporting](http://riotinto.com/sustainabilityreporting)).

## Scope 3 GHG emissions – equity basis

Sources of Scope 3 equity GHG emissions (Mt CO <sub>2</sub> e)	2025	2024	2023	2022	2021
<b>Upstream emissions</b>					
1. Purchased goods and services	12.8	12	15.2	16.7	19.5
2. Capital goods	1.8	1.7	2.2	1.8	1.9
3. Fuel and energy-related activities	4.5	4.2	4.4	4.5	4.5
4. Upstream transportation and distribution	7.1	6.5	6.8	6.5	5.9
5. Waste generated in operations	0.1	0.1	0.1	0.1	0.1
6. & 7. Business travel and employee commuting	0.6	0.5	0.8	0.5	0.4
<b>Downstream emissions</b>					
9. Downstream transportation and distribution	2.9	2.1	2.4	2.3	2.7
10. Processing of sold products					
– Iron ore	398.5	395.9	399.9	386.6	364.6
– Bauxite and alumina	135.2	134.0	127.1	138.2	144.5
– Titanium dioxide feedstock	4.7	4.5	4.9	5.9	4.9
– Copper concentrate	1.1	0.7	0.5	0.5	0.5
– Salt	5.6	6.6	7.0	7.1	7.2
– Other	0.8	1.0	1.2	1.6	1.6
<b>Total</b>	<b>575.7</b>	<b>569.8</b>	<b>572.5</b>	<b>572.3</b>	<b>558.3</b>

Note: The sum of the categories may be slightly different to the Rio Tinto total due to rounding.

The following categories are excluded for the reasons provided:

Category 11 (Use of sold products): Not applicable since Rio Tinto does not produce fossil fuels or manufacture products applicable to this category.

Category 8 (Upstream leased assets); Category 12 (End-of-life treatment of sold products); Category 13 (Downstream leased assets); Category 14 (Franchises) – Not applicable since Rio Tinto does not lease significant upstream and downstream assets or have franchised operations. In relation to end-of-life treatment, our products, and end use materials from our products, are predominantly recycled.

Category 15 (Investments) – This category is for reporting emissions from company investments not already reported in Scope 1 and 2. Rio Tinto reports using the equity share approach, so all Scope 1 and 2 emissions from managed and non-managed investments are included in Scope 1 and 2 reporting and Scope 3 emissions within other applicable categories of Scope 3 reporting. In 2025, Scope 3 emissions from acquired Arcadium Lithium assets were included as well as 100% of QAL.

For spend-based emissions, the currency and country-specific inflation factors have been refreshed, along with the full alignment to EXIOBASE dataset. Restatements to 2024 values are reflective of these changes.

Simandou produced first ore in 2025, emissions from produced iron ore in Simandou are not yet included in Cat 10 and Cat 4/9. This is because the production quantities used in the calculations are based on 2025 Fourth Quarter Operations Review Iron Ore Shipments.

For further details on Scope 3 reporting refer to the Scope 1, 2, and 3 Emissions Calculation and Climate Methodology 2025 Addendum (available at [riotinto.com/climatereporting](http://riotinto.com/climatereporting), pages 4–6).

## Transition materials metrics

Our products are classified as key transition materials (KTM) and other transition materials (OTM), aligning with the CA100+ Net Zero Standard for Diversified Mining Companies. Iron ore and gold are classified as transition neutral materials (TNM). Of the consolidated sales revenue disclosed below, KTM's accounted for US\$7,608 million (13%) in 2025 and US\$4,728 million (9%) in 2024.

Commodity	Classification	Year ended 31 December	Emissions Mt CO <sub>2</sub> e <sup>5,6</sup>	Production <sup>1</sup>	Consolidated sales revenue <sup>2</sup> \$ millions	Capital expenditure <sup>3</sup> \$ millions	Operating assets <sup>4</sup> \$ millions	2026 guidance Rio Tinto production share, unless otherwise stated
Lithium <sup>7</sup> ('000 tonnes)	KTM	2025	0.2	46	944	1,365	9,783	61 to 64 LCE kt
		2024	–	N/A	–	155	1,088	
Copper <sup>8</sup> (mined) ('000 tonnes)	KTM	2025		735				Copper (consolidated basis): 800 to 870kt
		2024		624	2025: 6,664			
Copper <sup>8</sup> (refined) ('000 tonnes)	KTM	2025		190	2024: 4,728			
		2024		248				
Silver (mined) ('000 ounces)	OTM	2025		5,516				
		2024		4,236	2025: 158			
Silver (refined) ('000 ounces)	OTM	2025	2025: 0.9	1,838	2024: 98	2025: 1,872	2025: 22,992	
		2024	2024: 1.0	2,314		2024: 2,055	2024: 22,124	
Molybdenum ('000 tonnes)	OTM	2025		5	2025: 263			Guidance not provided
		2024		3	2024: 159			
Gold (mined) ('000 ounces)	TNM	2025		464				
		2024		282	2025: 1,922			
Gold (refined) ('000 ounces)	TNM	2025		117	2024: 797			
		2024		144				
Aluminium <sup>9</sup> ('000 tonnes)	OTM	2025	16.7	3,380	11,275	1,461	13,039	3.3 to 3.5Mt
		2024	16	3,296	9,363	1,256	12,017	
Alumina <sup>9</sup> ('000 tonnes)	OTM	2025	6.4	7,593	1,272	289	689	7.6 to 8Mt
		2024	5.7	7,303	1,522	279	804	
Bauxite <sup>9</sup> ('000 tonnes)	OTM	2025	0.9	62,400	2,848	231	2,105	58 to 61Mt
		2024	1	58,653	2,110	159	2,289	
Minerals <sup>10</sup> ('000 tonnes/carats)	OTM/TNM	2025	1.8	See footnote	2,702	349	3,693	See footnote 13
		2024	1.7	12	2,954	379	3,662	
Iron ore <sup>11</sup> ('000 tonnes)	TNM	2025	3.7	290,639	28,376	6,612	26,678	Total iron ore sales guidance: 343 to 366Mt <sup>14</sup>
		2024	3.7	287,676	30,804	5,108	20,903	
Thermal and metallurgical coal	Not applicable	2025	–	–	–	–	–	–
		2024	–	–	–	–	–	–

1. Production figures are measured according to Rio Tinto's ownership % share of each site. For further details on the % share, see pages 276-277 where these have been highlighted.

2. Consolidated sales revenue by product, as defined within Consolidated sales revenue by product on page 180, include 100% of subsidiaries' consolidated sales revenue and Rio Tinto's share of the consolidated sales revenue of joint operations but exclude equity accounted units. The product analysis above does not include certain other products and freight services disclosed in note 6 on page 180, which are not considered material.

3. Capital expenditure by product is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets as derived from the Consolidated Cash Flow Statement. The details provided include 100% of subsidiaries' capital expenditure and Rio Tinto's share of the capital expenditure of joint operations but exclude equity accounted units. The product analysis above excludes amounts that are not directly attributable to individual commodities.

4. Operating assets by product recorded above are the net assets of subsidiaries, joint operations and the Group's share relating to equity accounted units adjusted for net (debt)/cash and post-retirement assets and liabilities, net of tax, after the deduction of non-controlling interests. The product analysis above excludes amounts that are not directly attributable to individual commodities.

5. Scope 1 and 2 emissions are measured on an equity basis and align to the Rio Tinto ownership % share used to record production values. For additional information on our emissions methodology, see our 2025 Sustainability Fact Book.

6. The emissions in this table are Scope 1 and 2 GHG emissions (market-based) for the operating sites producing the commodity listed. The total differs from the full Group share reported numbers as these exclude development, closure sites, marine shipping, aluminium recycling and corporate emissions.

7. Figures exclude Jadar following the November 2025 announcement that the project will be placed under care and maintenance.

8. Copper production from Oyu Tolgoi, Kennecott and Escondida has been certified under the Copper Mark system. The Copper Mark certification for Escondida has been obtained via BHP which is the majority partner.

9. For a list of assets certified under the Aluminium Stewardship Initiative, see our 2025 Sustainability Fact Book.

10. Minerals comprise titanium dioxide slag (OTM), borates (TNM), salt (TNM) and diamonds (TNM).

11. Iron ore production refers to saleable production, after crushing, screening and beneficiation processes. For purposes of this disclosure, Simandou's 2025 production has been included, which represents crushed ore at the mine gate.

12. 2025 mineral production is as follows:

- (a) Titanium dioxide slag ('000 tonnes): 975 (2024: 990)
- (b) Borates ('000 tonnes): 502 (2024: 504)
- (c) Salt ('000 tonnes): 4,750 (2024: 5,823)
- (d) Diamonds ('000 carats): 4,429 (2024: 2,759)

13. Our strategic reviews are advancing as planned, with the next phase focused on identifying the best path to unlock value. As such, we will no longer provide production guidance for Iron and Titanium, and Borates, while this process is underway.

14. Wet metric tonne basis.

## GHG emissions methodology

Our emissions reporting complies with the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)'s Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (2015), GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2013) and the Technical Guidance for Calculating Scope 3 Emissions (version 1.0).

Emissions are reported using the equity share approach, which attributes GHG emissions according to the company's economic interest in each asset. Where ownership changes occur during the reporting year, emissions are apportioned to reflect the actual equity share over time. For consistency in tracking progress against targets, we report baseline emissions on an adjusted equity basis. This method applies our current economic interest (equity share) to all operational emissions, standardised to current corporate and asset ownership back through to the 2018 base year (adjusted equity).

Adjustments are made for acquisitions and divestments; expansions or closures do not result in changes.

Scope 1 emissions are direct GHG emissions from facilities we own or control, including fuel use, onsite electricity generation, anode and reductant use, process emissions, land management and livestock.

Emission factors are sourced from applicable national or regional reporting schemes, or from the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, where local factors are unavailable.

Scope 2 emissions arise from purchased electricity, heat or steam. From 2023, we report Scope 2 using both the location-based method, which reflects grid emissions intensity, and the market-based method, which accounts for contractual instruments such as renewable energy certificates and exclusive energy attribute contracts. Emission factors are sourced from the National Greenhouse and Energy Reporting (Measurement) Determination 2008 for Australian operations, and from public grid data or electricity retailers for non-Australian operations.

Scope 2 emissions are reported on both an equity share and 100% managed basis (where indicated).

Scope 3 emissions are indirect GHG emissions generated as a result of activities undertaken across the value chain, either upstream or downstream of our operations. These are calculated in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2013) and supporting technical guidance. Scope 3 emissions are reported on an equity share basis and include the most material categories: processing of sold products (including iron ore, bauxite and alumina), purchased goods and services, and upstream transportation and distribution.

Total GHG emissions are calculated as Scope 1 plus Scope 2 emissions, minus carbon credits retired from recognised sources.

For further detail on calculation methodologies, key assumptions and emission factors, see our *2024 Scope 1, 2 and 3 Emissions Calculation and Climate Methodology* report and the 2025 Addendum (available at [riotinto.com/climatereporting](http://riotinto.com/climatereporting)).

## Scope 1 and 2 emissions: Reduce emissions from our own operations

<b>Target details</b>	2025 target: Reduce our net Scope 1 and 2 emissions by 15% by 2025 (relative to 2018 levels <sup>1</sup> ) 2030 target: Reduce our net Scope 1 and 2 emissions by 50% by 2030 (relative to 2018 levels <sup>1</sup> ) 2050 target: Net zero by 2050 (relative to 2018 levels)
<b>Target setting</b>	
Metric:	Operational emissions: Scope 1 and 2 GHG emissions, adjusted <sup>1</sup> equity basis
Objective:	Mitigation of Scope 1 and 2 GHG emissions
Scope:	Applies to our economic interest (equity share) of all operational emissions, standardised to current corporate and asset ownership in the 2018 base year (adjusted equity). Our targets cover more than 95% of our operational emissions. Scope 2 emissions are calculated using the market-based method.
Base year period:	2018
Target type:	Percentage (2030), Absolute (2050)
Influence of international climate agreements:	Targets support the Paris Agreement objectives
<b>Approach to target management</b>	
Third-party validation:	In 2021, KPMG provided limited assurance over the alignment of our targets with efforts to limit warming to 1.5°C. Scope 1 and 2 GHG emissions are audited to reasonable assurance annually by the third-party auditors which validates Rio Tinto's performance against target. In 2025, KPMG provided limited assurance over our 2025 progress reporting against our CAP in addition to its reasonable assurance of our Scope 1 and 2 emissions, and limited assurance of Scope 3 emissions. KPMG's statement is included at the end of the report.
Review process:	Decarbonisation review sessions are held each year as part of the regular ExCo schedule to discuss the overall decarbonisation roadmap and abatement portfolio. This includes any future changes to our targets or commitments should they be necessary.
Revisions to the target:	Any revision to the target will be disclosed and explained in the Rio Tinto Annual Report. No revisions have been made to the target in the current period.
<b>Greenhouse gas emissions targets</b>	
GHGs covered by the target:	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> . (NF <sub>3</sub> is not applicable)
Gross vs. net emissions target:	Net emissions target: 50%, Gross emissions target: 40%
Sectoral decarbonisation approach:	While there is no universal standard for determining the alignment of targets with the Paris Agreement goals, we concluded that our Scope 1 and 2 target for 2030 was aligned with efforts to limit warming to 1.5°C when we set it in 2021. Our targets were not set using a sectoral decarbonisation approach as there was no sector-specific methodology then. This remains the case today.
Planned use of carbon credits:	The use of carbon credits towards our target will be limited to 10% of our 2018 baseline. In 2025, our net emissions include the use of Australian Carbon Credit Units (ACCUs) by our Australian assets to comply with the Safeguard Mechanism in the calendar year 2025.
<b>Performance against targets</b>	
Progress achieved	Gross: 2025: 31.5   2024: 31.7   2018: 36.7
Scope 1 and 2 GHG emissions (adjusted equity basis) (Mt CO <sub>2</sub> e) <sup>1</sup>	Net: 2025: 30.4   2024: 30.7   2018: 36.7 See page 55 for additional details on progress against our Scope 1 and 2 targets.

1. We adjust our baseline to exclude reductions achieved by divesting assets and to account for acquisitions. Changes to our 2018 baseline include: Acquisition of Arcadium Lithium portfolio of sites, change in equity to Winu from 100% to 70% due to the new joint venture with Sumitomo Metal Mining Co. Due to the adjusted economic interest relating to offtake of production in Queensland Alumina (utilising 100% of tolling capacity), the baseline has been updated to reflect 100% instead of 80% share.

### Scope 3 emissions: Partner to decarbonise our value chains

Target details		Steel decarbonisation				
	Support our customers' ambitions to reduce their carbon emissions from blast furnace-basic oxygen furnace (BF-BOF) process by 20–30% by 2035.	Reduce our net Scope 3 emissions from IOC high-grade ores by 50% by 2035 relative to 2022.	Commission a shaft furnace (DRI) + Electric Smelting Furnace (ESF) pilot plant by 2028, in partnership with a steelmaker.	Finalise study on a beneficiation pilot plant in the Pilbara by 2026.		
Target setting						
Metric:	% reduction in carbon emissions from BF-BOF process	Net Scope 3 emissions from IOC high grade ores	Commissioning status of DRI + ESF pilot plant	Completion status of beneficiation pilot study		
Objective:	To partner with customers and suppliers to decarbonise the steel value chain by supporting their emissions reduction ambitions and accelerating the development and adoption of low-emissions technologies, thereby reducing our Scope 3 emissions.					
Scope:	Customer operations (Scope 1 and 2 for steelmakers using BF-BOF process)	Processing emissions from Rio Tinto IOC high-grade iron ore	Shaft furnace DRI + ESF pilot plant	Beneficiation pilot plant in the Pilbara		
Base year period:	Customer specific baseline year	2022	Target date is 2028, base year does not apply	Target date is 2026, base year does not apply		
Target type:	Percentage	Percentage	Action-based (engagement and process improvement, not expressed as absolute or percentage emissions reduction)			
Influence of international climate agreements:	Our Scope 3 steel decarbonisation targets and commitments have not been influenced by international agreements.					
Approach to target management						
Third-party validation:	<p>We engage KPMG to provide limited assurance on our Scope 3 emissions calculations and progress made in relation to the 4 most significant categories of our Scope 3 footprint: steel and aluminium value chains, shipping and procurement. The assurance statement is available on page 326.</p> <p>Scope 3 emissions reduction targets and methodologies have not been independently validated, however, they have undergone our internal review and validation processes and are subject to regular review to ensure continued relevance. See review process below.</p>					
Review process:	Decarbonisation review sessions are held each year as part of the regular ExCo schedule to discuss the overall decarbonisation roadmap and abatement portfolio. This includes any future changes to our targets or commitments should they be necessary.					
Revisions to the target:	<p>The following targets have been revised in the year:</p> <ul style="list-style-type: none"> <li>Commission a shaft furnace – direct reduced iron (DRI) + electric smelting furnace (ESF) pilot plant by 2028 (revised from 2026), in partnership with a steelmaker.</li> <li>The Biolron™ pilot plant work, and associated commissioning target, has been paused.</li> </ul> <p>See page 65 for further detail.</p>					
Greenhouse gas emissions targets						
GHGs covered by the target:	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O					
Gross vs. net emissions target:	Not applicable to action-based targets. All other steel decarbonisation Scope 3 targets are set on a gross basis, as we do not currently plan to use or retire carbon credits to achieve these targets.					
Sectoral decarbonisation approach:	Not applicable to action-based targets. All other steel decarbonisation Scope 3 targets have not been derived using a sectoral decarbonisation approach. Instead, we have set these targets based on what we can achieve practically and effectively under each category.					
Planned use of carbon credits:	Not planned.					
Performance against targets						
Progress achieved as at year-end:	See pages 65–67 for detail on how we are progressing against our Scope 3 targets.					

### Scope 3 emissions: Partner to decarbonise our value chains (continued)

Target details		Shipping decarbonisation		Alumina		Procurement							
	Reach net zero shipping by 2050 across our shipping footprint	10% of time-chartered fleet to be running on low-carbon fuels by 2030 and progressing to 100% of time-chartered fleet by 2040	Reduce emissions intensity by 40% by 2025 and deliver 50% intensity reduction by 2030	In 2025, partner with at least 2 bauxite customers with the goal of improving energy efficiency and reducing emissions	Engage with 50 of our highest-emitting suppliers on emissions reduction	Implement decarbonisation evaluation criteria for new sourcing in high-emitting categories							
<b>Target setting</b>													
Metric:	Net shipping emissions (Mt CO <sub>2</sub> e)	% of time-chartered fleet operating on low-carbon fuels	Shipping emissions intensity	Number of partnerships	Number of suppliers engaged	Decarbonisation evaluation criteria for new sourcing in high-emitting categories							
Objective:	To decarbonise our shipping footprint by improving energy efficiency, transitioning to low-carbon fuels, and partnering with industry stakeholders to achieve net zero shipping by 2050.			Improve energy efficiency and reduce emissions in alumina refining through technical solutions	Reduce upstream Scope 3 emissions by driving supplier accountability and integrating decarbonisation into procurement decisions								
Scope:	Emissions from the shipping of our products	Time-chartered fleet only; applies to use of low-carbon fuels	Emissions from Rio Tinto-managed bulk marine shipping	Emissions from alumina refining at customer operations processing Rio Tinto bauxite	Upstream emissions from goods and services procurement	Upstream emissions from procurement in high-emitting categories							
Base year period:	No base year	No base year	2008 (IMO's baseline year)	No base year	No base year	No base year, ongoing							
Target type:	Absolute	Percentage	Intensity	Action-based target (engagement and process improvement, not expressed as absolute or percentage emissions reduction)									
Influence of international climate agreements:	Our Scope 3 targets and commitments have not been influenced by international agreements.												
<b>Approach to target management</b>													
Third-party validation:	We engage KPMG to provide limited assurance on our Scope 3 emissions calculations and progress made in relation to the 4 most significant categories of our Scope 3 footprint: steel and aluminium value chains, shipping and procurement. The assurance statement is available on page 326. Our emissions intensity reduction target and methodology was independently reviewed and validated by DNV Maritime Advisory Services and KPMG in 2023. Other shipping decarbonisation targets and methodologies have not been independently validated, however, they have undergone our internal review and validation processes and are subject to regular review to ensure continued relevance. See review process below.												
Review process:	Decarbonisation review sessions are held each year as part of the regular ExCo schedule to discuss the overall decarbonisation roadmap and abatement portfolio. This includes any future changes to our targets or commitments should they be necessary.												
Revisions to the target:	Any revision to the target will be disclosed and explained in the Rio Tinto Annual Report. No revisions have been made to the target in the current period.												
<b>Greenhouse gas emissions targets</b>													
GHGs covered by the target:	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O		CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, SF <sub>6</sub> , HFCs, and PFCs.									
Gross vs. net emissions target:	All Scope 3 targets are set on a gross basis, as we do not currently plan to use or retire carbon credits to achieve these targets.												
Sectoral decarbonisation approach:	Our shipping targets have been informed by sectoral decarbonisation pathways, including those established by the International Maritime Organization and industry initiatives such as the First Movers Coalition, which guided the timing and ambition of our emissions intensity reductions and fuel transition commitments.			Alumina and procurement Scope 3 targets have not been derived using a sectoral decarbonisation approach. Instead, we have set these targets based on what we can achieve practically and effectively under each category.									
Planned use of carbon credits:	Not planned.												
<b>Performance Against Targets</b>													
Progress achieved as at year-end:	See pages 65–67 for detail on how we are progressing against our Scope 3 targets.												