Fortescue™

Fortescue Climate Transition Plan

The Road to Real Zero

20 October 2023

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1 THE ROAD TO REAL ZERO

Climate change is the greatest challenge facing the global community. It also presents a once in a lifetime opportunity for economic growth and value creation.

Climate change has the potential to lead to catastrophic social and economic outcomes, the costs of which far exceed those associated with transitioning to a low carbon world. The Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) found that without deep reductions in greenhouse gas emissions over the coming decades, global warming will exceed 2°C in the 21st century.

Without immediate action to reduce global emissions, the impacts of climate change, which are already being felt, will continue to worsen. Swift action from industry and strong policy frameworks from governments are required, where risk taking is incentivised and rewarded and the rights of our communities are protected.

Strong action to address climate change is embedded within the Fortescue Metals Group Limited (Fortescue) business and is led by our Founder and Executive Chairman, Dr Andrew Forrest AO and our Board of Directors (the Board).

Fortescue is proceeding with swift actions to address the climate change challenge. We have begun the transition away from business as usual as a heavy emitter, to pivot our business into an integrated green technology, energy and metals company.

1.1 Race to Zero

The Race to Zero is a global campaign, coordinated through the United Nations Framework Convention on Climate Change (UNFCCC), to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth.

The Race to Zero criteria are delineated in two categories:

- **Starting line** criteria lay out minimum requirements for all members to meet, below which members cannot fall if they wish to join and remain in the campaign. This incorporates meta-criteria known as the Five Ps: Pledge, Plan, Proceed, Publish and Persuade.
- **Leadership practices** signal how leading entities can light the way to a net zero world.

Our progress against these criteria is referenced within the checklist provided as Appendix A.

At Fortescue, we commenced our Race to Zero journey in September 2022, with the release of our industry-leading decarbonisation plan, incorporating a target for real zero terrestrial Scope 1 and 2 emissions across our iron ore operations by 2030. Our participation in the Race to Zero campaign was formalised on 20 October 2022.

This report addresses the Plan criterion, which requires that within 12 months of joining, participants will publicly disclose a Transition Plan which outlines how all other Race to Zero criteria will be met, including what actions will be taken within the next 12 months, within 2-3 years, and by 2030.

1.2 This report

This report addresses our climate transition planning and has been developed with guidance from the Transition Plan Taskforce (TPT); the Taskforce on Climate-related Financial Disclosures (TCFD); and with ambition inspired by the Race to Zero. It also progresses our preparation for the adoption of the International Sustainability Standards Board (ISSB)'s climate standard, IFRS S2, which is in the process of being mandated by the Australian Government for a range of entities including publicly listed companies on the Australian Stock Exchange.

Fortescue has a costed plan to decarbonise our Scope 1 and 2 fossil fuel emissions across our terrestrial Australian iron ore operations, while developing projects and technology to help scale green energy and green hydrogen globally.

Our transition strategy has three core elements aligned with the recommendations of the TPT:

- decarbonisation
- business transition
- climate risks and opportunities.

We will continue to publish annual disclosures of our progress and metrics in accordance with IFRS S2. Our Transition Plan will be updated at minimum every three years, in keeping with the TPT recommendation, and will also be updated as required to address material changes.

1.2.1 Decarbonisation

Decarbonisation of our material operational and value chain emissions is our major focus in our path to Real Zero[1] emissions by 2030.

In section 5.2, we provide a progress update on our Board-approved US$6.2 billion decarbonisation plan to eliminate the use of fossil fuels from our Australian terrestrial iron ore operations which currently accounts for 89 per cent of Scope 1 and Scope 2 emissions.

At the time of publishing this report, we have identified the solutions we plan to adopt to eliminate approximately 90 per cent of terrestrial Scope 1 and 2 emissions from our Australian iron ore operations. We are actively working to identify solutions for the final approximately 10 per cent.

We are currently finalising our plan for how to eliminate Fortescue's remaining Scope 1 and 2 emissions from across our operations, including those emissions generated from our international Metals activities, our marine vessels and from Fortescue Energy activities.

1.2.2 Business transition

Fortescue Energy

Fortescue Energy is our global green energy business. Its focus is on producing enabling technology and commercial scales of green energy and green hydrogen, including

[1] Real Zero refers to no fossil fuels and no offsets.

derivatives such as green ammonia, to accelerate global decarbonisation of heavy industry, aviation, shipping and fertilisers.

Fortescue Energy allows us to accelerate our decarbonisation journey, developing those products and technologies inhouse, where they are not commercially available at the scale or timeframe required for us to deliver Real Zero Scope 1 and 2 emissions across our Australian iron ore operations by 2030 and Net Zero Scope 3 emissions by 2040. Fortescue Energy consists of the following integrated segments:

- **Fortescue Future Industries:** Green energy project development and production. Fortescue Future Industries has prioritised and progressed its global portfolio of green energy projects, with a target of five projects achieving Final Investment Decision by the end of calendar year 2023.
- **Fortescue WAE:** Battery and fleet technology development and manufacturing. Fortescue WAE expanded its battery and electric power train production operations in the United Kingdom in FY22 to focus on zero emission products for the off-road sector.
- **Fortescue Hydrogen Systems:** Electrolyser and hydrogen production systems development and manufacturing. Fortescue Hydrogen Systems completed construction works on the 2GW Gladstone electrolyser manufacturing facility. The team also commenced manual assembly of in-house designed proton exchange membrane (PEM) electrolyser stacks, with automated assembly line due for delivery and installation in FY24.

Critical minerals

Iron ore is an essential component in the energy transition, and as consumers and customers look to reduce their own carbon footprint, the demand for green iron ore and green steel will increase.

To minimise risks and maximise opportunities, we are also diversifying, targeting other commodities, including copper and lithium to support low carbon and green energy economies. In FY23, Fortescue's exploration activities included:

- Continued iron ore exploration in the Pilbara, with resource definition drilling in the Eastern Hamersley and a focus on Nyidinghu and Mindy South and regional exploration in the Western Hub.
- Exploration activity primarily focused on early-stage target generation for copper-gold in the Paterson region in Western Australia.
- Additional exploration activity for copper in South Australia, New South Wales and Queensland.

We also have an established presence in Latin America, including Argentina, where we currently hold tenements prospective for copper and gold. We are assessing exploration and development opportunities for critical minerals in Brazil, Chile and Peru. Fortescue has a 25.4 per cent stake in TSX listed Alta Copper Corp. and we support the advancement of the Cañariaco project in Peru. In Kazakhstan, a range of copper targets are being progressed to drilling while work in Portugal is focused on development of lithium opportunities.

1.2.3 Climate risk and opportunity

We recognise that Fortescue is exposed to a wide range of complex and interacting transition and physical climate-related risks and uncertainties. We are working to prepare our business to ensure it remains resilient in this period of global transition.

For these reasons, Fortescue commits to a 1.5°C world and we are working to align our business model as rapidly as possible to support the global transition. We are members of the Business Ambition for 1.5°C campaign, which was established as an urgent call to action from a global coalition of UN agencies, business and industry leaders, in partnership with the Race to Zero.

Materiality

Expectations in relation to the identification and management of material sustainability issues for organisations have become increasingly sophisticated in recent years. There is a greater focus on the connection between an organisation's material issues and its overall enterprise value, as well as heightened scrutiny around how organisations are responding to material issues through strategy, risk management and capital allocation.

Materiality assessments allow Fortescue to identify current and emerging priority issues across the group, and to inform our decision-making and allocation of capital.

The sustainability disclosure landscape is evolving rapidly, with reporting standards becoming increasingly stringent and regulated. This includes the Global Reporting Initiative (GRI) standards and the new ISSB IFRS standards.

The ISSB IFRS and GRI standards act as two interconnected pillars that address distinct perspectives, which can together form a comprehensive, best-practice corporate reporting regime. A double materiality assessment considers materiality through two lenses, impact materiality and financial materiality:

- **Impact materiality** assesses the impacts of Fortescue on the economy, environment, and people, including impacts on human rights, as defined under the GRI 3 (2021) standard.
- **Financial materiality** assesses the sustainability related risks and opportunities facing Fortescue, as defined under the ISSB IFRS S1 and S2 standards.

As an ASX-listed entity, Fortescue is currently obliged to disclose the extent to which we have followed the recommendations of the ASX Corporate Governance Principles and Recommendations, including whether we have any material exposure to economic, environmental and social sustainability risks and how we manage those risks.

Climate-related risks or opportunities are considered financially material where they:

- have a significant impact on the entity and/or could qualitatively influence investors' decisions as a result of the sector or the emissions profile associated with an entity;
- have a material impact in the entity's specific circumstances, including physical climate risk associated with assets, supply chain constraints and market demand, or
- affect any of the amounts recognised or disclosed in the financial statements.

Climate change has been identified as a material topic for Fortescue since the commencement of our formal corporate social responsibility and sustainability disclosures in 2017. In 2019, we began standalone reporting on climate change, reflecting the importance of this issue to our business. Climate change is relevant to our business under both impact and financial materiality lenses.

Our annual Climate Change report is prepared in alignment with TCFD, and we are preparing to incorporate the requirements of ISSB S2 standards in future disclosures.

Climate change is also acknowledged to have strong connections and interdependencies with a range of other topics including biodiversity, water and human rights. Fortescue is also focused on integrating the Taskforce on Nature-related Disclosures (TNFD) methodologies into future sustainability disclosures.

Scenario planning

Fortescue recognises climate-related risks and opportunities across three domains that reflect the TCFD and TNFD methodologies:

- **Transition** – arising from the need to decarbonise the global economy
- **Physical** – arising from the physical impacts of climate change itself
- **Nature** – arising from humanity's impacts on the planet's complex ecosystems and biodiversity and our reliance on these natural systems to survive.

To improve our understanding of the impact of climate change on Fortescue, we have stress tested the resilience of our business strategy under different emissions scenarios. We have previously reported on the IPCC's "Unified Global Action" scenario, the "Two-speed Transition" scenario and the "Stall and Shock" scenario.

In FY23, we also examined three further IPCC low-emission Shared Socio-economic Pathways (SSPs) in 2030 and in 2040:

- **SSP1/RCP*1.9**: A very low emission scenario, assuming rapid decarbonisation and strong mitigation efforts with strong global cooperation.
- **SSP2/RCP*2.6**: A relatively low emission scenario, assuming moderate population growth, a mix of environmental policies and medium levels of economic development with levels proceeding unevenly across countries.
- **SSP5/RCP*2.6:** A relatively low emission scenario, associated with continued demand growth for metals, high energy demand and high economic growth. It assumes fragmented governance structures and limited environmental regulations.

For the analysis of climate-related risks and opportunities relating to the transition to a low-carbon economy, we assess risks and opportunities that could arise from:

- demand fluctuation for products
- technical viability of decarbonisation
- policy and regulatory change
- reputational damage.

The climate scenario modelling we have undertaken to date is detailed within our FY21, FY22, and FY23 Climate Change Reports which are available on our website at www.fortescue.com.

2 OUR EMISSIONS

In FY23, Fortescue's total reported greenhouse gas emissions were 270.16 million tonnes of carbon dioxide equivalent (mt CO_2-eq). The historical breakdown of our full emissions inventory can be found in our annual Climate Change Reports. Our emissions have been published annually since 2019 and our FY23 Climate Change Report is available at www.fortescue.com.

2.1 Emissions calculation methodology

At Fortescue, we calculate our annual emissions according to the GHG Protocol Corporate Standard methodology across all scopes.

Scope 1 and 2

We apply the operational control consolidation approach to determine our organisational boundaries. For Scope 2 emissions, we currently report emissions using location-based methodology, as it is the most relevant to our business at this time. Our Pilbara operations are located in an isolated grid where there is very limited availability of renewable energy contracts, thus a location-based approach is applicable.

For completeness, we also calculate (and verify) emissions using market-based methodologies, but do not currently report them. We anticipate that for future projects in global locations where Fortescue can enter into renewable energy contracts, a market-based approach will become generally more suitable once projects become material.

Land use emissions are not currently included in our scope 1 and 2 calculations, but we do calculate these for some projects as required by Australian Regulation. We are currently reviewing this approach in line with Race to Zero and SBTi requirements and best practice.

Scope 3

Our detailed Scope 3 methodology is published annually on our website. Our relevant and calculated Scope 3 categories in FY23 include:

- category 1, purchased goods and services
- category 2, capital goods
- category 3, fuel-and-energy related activities (not included in Scope 1 or 2)
- category 4, upstream transportation and distribution
- category 6, business travel
- category 7, employee commuting
- category 8, upstream leased assets
- category 9, downstream transportation and distribution
- category 10, processing of sold products.

Scope 3 categories 5, 11, 23, 13, 14 and 15 were deemed not relevant to Fortescue in FY23.

During FY23 emissions reporting, no Scope 3 downstream emissions were identified from the use of Fortescue Energy products. As the portfolio of product offerings increases to include fertiliser and other hydrogen derivatives and production commences at scale, the downstream impact of these products will be reflected in our reportable Scope 3 emissions.

For Category 10, processing of sold products, Fortescue commissioned independent mining, metals and fertilisers consultancy CRU to analyse our mix of iron ore products and determine emissions factors for each process from preparing iron ore and the blast furnace to basic oxygen furnace route to producing crude steel in steel mills located in our main markets. The emission factors developed by CRU were applied to the volumes of the relevant iron ore product sold into each main market to determine the emissions from transforming our iron ore into crude steel.

For Category 4, upstream transportation and distribution, fuel usage data, where available, was sourced via a third party (Maritech Services Limited, Sea/ platform) direct from the ship owners. Fuel emission factors from the GLEC Framework were then used to calculate well-to-wake CO_2-eq emissions for these voyages via the Sea/ (Carbon Accounting) platform.

Our FY23 Scope 3 emission calculation methodology is available at www.fortescue.com.

2.2 Climate change metrics

Annually, we report against the following metrics:

Scope 1 and 2 emissions

- Gross Scope 1 emissions
- Gross Scope 1 shipping emissions
- Gross Scope 2 emissions
- Scope 1 and 2 emissions reduction through **mandatory** offsets
- Net Scope 1 and 2 emissions
- Emissions intensity in electricity generation.

Scope 3 emissions

- Gross Scope 3 emissions (by category).

Energy metrics

- Diesel consumption
- Natural gas consumption
- Other energy consumption
- Non-renewable energy purchased
- Renewable energy purchased
- Total net energy consumed.

We disclose our progress against our targets and these metrics via our annual TCFD and Climate 100+ aligned Climate Change Report, as well as through recognised, standardised disclosure frameworks including the annual CDP Climate Change questionnaire.

2.3 Scope 1 and 2 emissions profile

In FY23, total gross Scope 1 and 2 emissions from Fortescue's global operations were 2.55 mt CO_2-eq, consisting of 2.2 mt CO_2-eq in Scope 1 emissions and 0.35 mt CO_2-eq in Scope 2 emissions.

Of our FY23 Scope 1 mining operations emissions:

- 35 per cent came from other Heavy Mobile Equipment (HME) (diesel)
- 25 per cent originated from our mining haul trucks (diesel)
- 13 per cent came from stationary power (gas, diesel)
- 12 per cent originated from marine vessels under our exclusive control (heavy marine fuel oil)
- 11 per cent came from our rail operations (diesel)
- 4 per cent came from other sources.

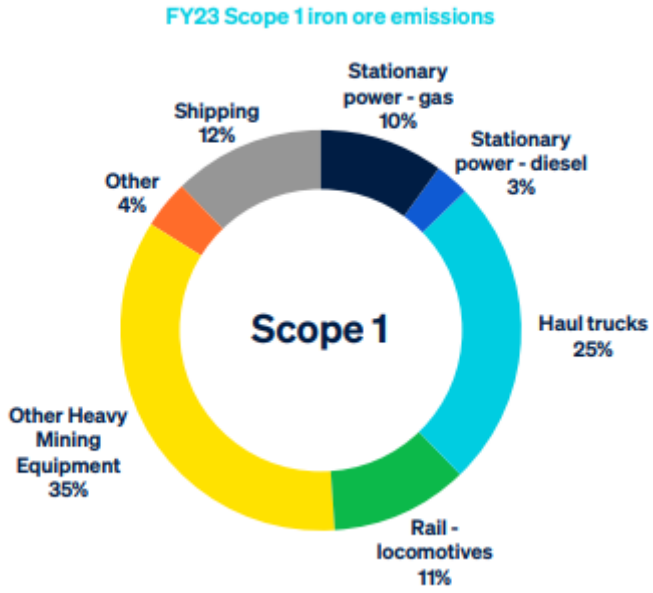


Figure 2-1: Breakdown of Scope 1 iron ore emissions

The majority of our emissions are currently generated from our Pilbara iron ore operations, accounting for more than 99 per cent of our Scope 1 and 2 emissions.

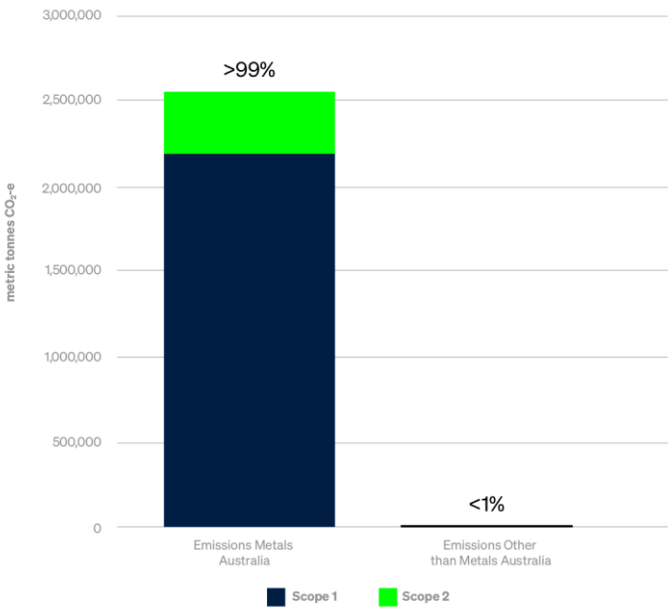


Figure 2-2: Proportion of Fortescue's emissions from Australian iron ore operations versus rest of Fortescue Scope 1 and 2 emissions

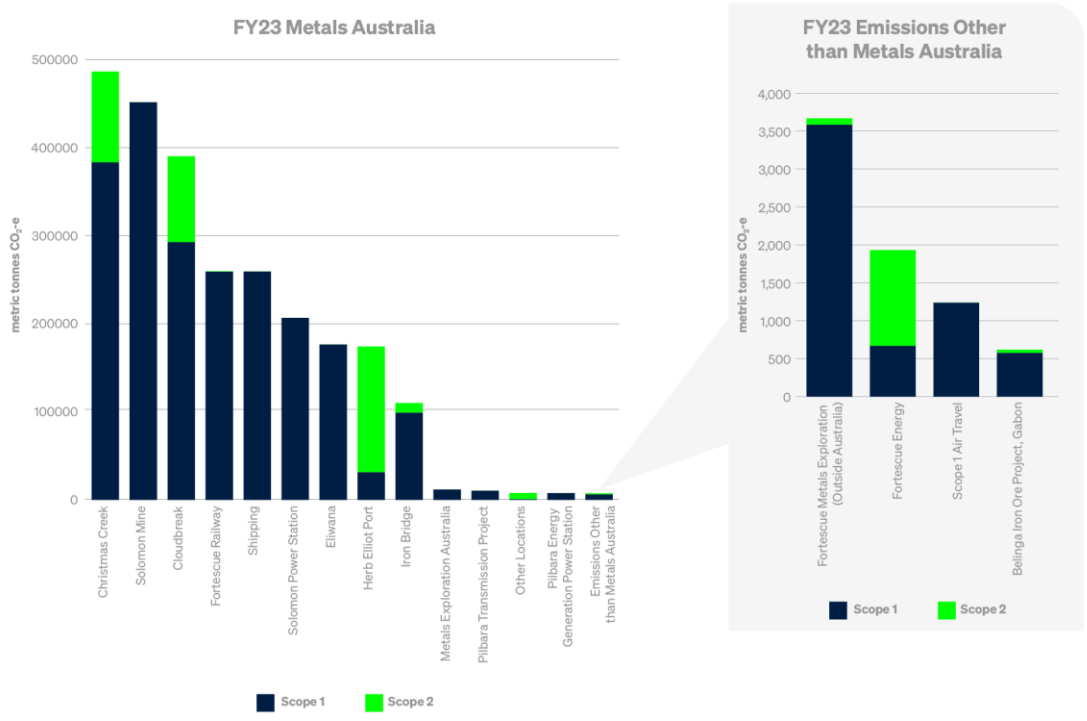


Figure 2-3: Breakdown of Fortescue's Scope 1 and 2 emissions by site

2.4 Scope 3 emissions profile

Scope 3 emissions are those that fall within our value chain but are outside our operational control. In FY23, 267.61mt CO_2-eq of Scope 3 emissions were generated from our value chain, primarily from the processing of our iron ore by our customers in steel mills located in Asia.

Our FY23 Scope 3 emissions increased by five per cent from FY22. This increase was influenced by a rise in the amount of iron ore shipped, from 189 million tonnes in FY22 to 192 million tonnes in FY23.

By far the largest source of Fortescue's Scope 3 emissions is the steelmaking process, which accounted for nearly 98 per cent of emissions in FY23. Steelmaking generates significant emissions due to its current reliance on coking and thermal coal, however new approaches that use renewable electricity and green hydrogen to produce green steel are under development by Fortescue and other businesses.

The next largest sources of Scope 3 emissions in FY23 were chartered cargo shipping and purchased goods and services which each represented around one per cent of our Scope 3 emissions. Other calculated sources were responsible for a combined total of less than 0.3 per cent of our Scope 3 emissions.

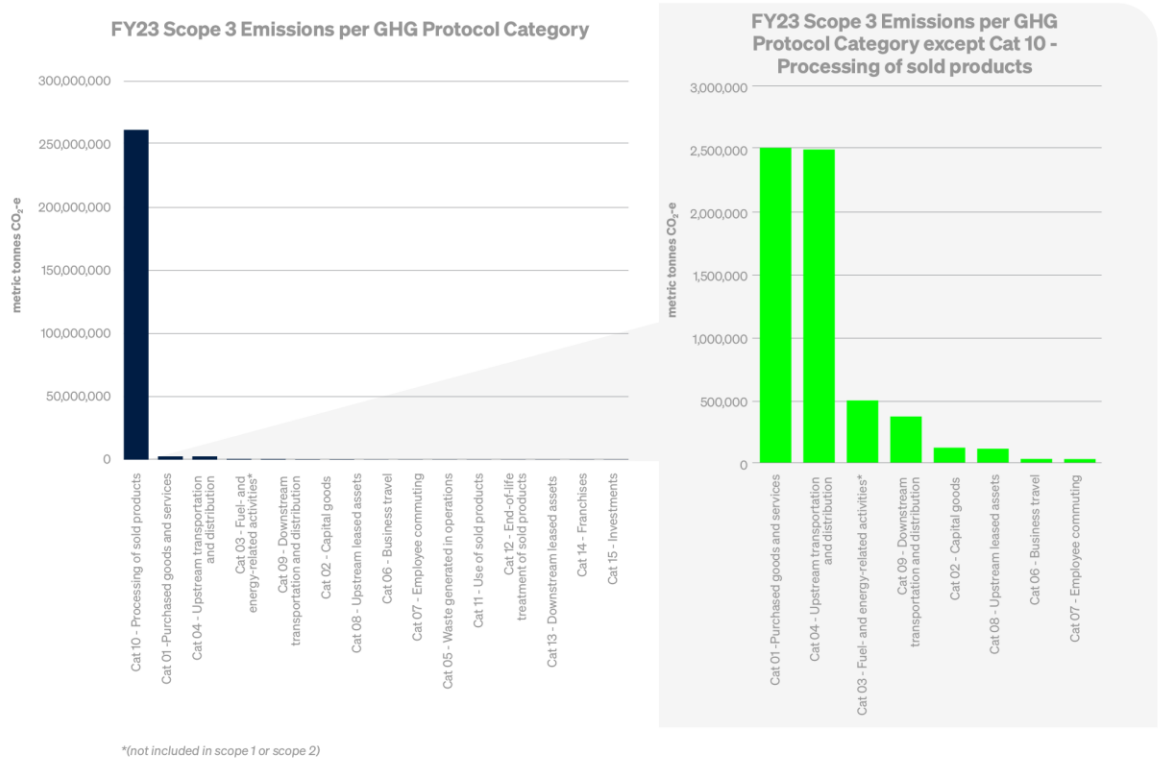


Figure 2-4: Breakdown of Fortescue's Scope 3 emissions by GHG Protocol Category.

2.5 Offsets

In FY23, Fortescue surrendered 336,833 tonnes in CO_2-eq of offsets to meet our previous commitment to annual reductions in our Scope 1 and 2 emissions. From FY24, we will no longer purchase voluntary carbon offsets for Scope 1 and 2 emissions, instead focusing our efforts on the elimination of real world emissions. Offsets against Scope 1 and 2 emissions will be purchased and relinquished only to the extent required by legislation.

3 OUR AMBITION

Fortescue has clear, public ambition to eliminate Scope 1, 2 and 3 greenhouse gas emissions. Our climate change targets form part of our broader sustainability strategy and align with a 1.5°C trajectory as we work towards achieving net zero one decade prior to 2050.

Fortescue's net zero targets outlined below cover over 99 per cent of our entire Scope 1,2, and 3 emissions profile for FY23.

3.1 Operational emissions

Our commitments in regard to our operational Scope 1 and Scope 2 emissions are:

- A **medium-term** target to achieve Real Zero Scope 1 and 2 emissions across our Australian iron ore operations by 2030.

  We have recently submitted a more detailed version of this target to SBTi for assessment:

  Fortescue commits to reduce absolute Scope 1 and 2 greenhouse emissions by 100 per cent by FY2031 from a FY2023 base year across our Australian iron ore terrestrial operations. These emissions represent more than 95 per cent of Fortescue's FY2023 Scope 1 and 2 emissions.

- A **long-term** goal to maintain Real Zero operational greenhouse gas emissions by 2050.

In order to report progress against our ambition, we will include a metric for *operational Scope 1 and 2 emissions from our Australian iron ore terrestrial operations* in our annual reporting from FY24.

Our real zero target prioritises the elimination of real-world emissions and the phase out of fossil fuel use.

3.2 Value chain emissions

We have set the following Scope 3 targets:

- A **long-term** target for net zero Scope 3 emissions by 2040. We have recently submitted this target to SBTi for assessment.
- A **medium-term** target to enable a reduction in emissions intensity from steelmaking by Fortescue's customers of 7.5 per cent by 2030, from FY21 levels.

The medium-term steelmaking target above covers 98 per cent of our Scope 3 emissions. In order to report progress against our ambition, we will include metrics for *emissions intensity from steelmaking* in our annual reporting from FY24.

4 CAPITAL ALIGNMENT

Our industry-leading decarbonisation plan will provide access to sustainability and green sources of capital. In addition to this, we will create significant value to our shareholders by:

- improving the integrity of our assets and operating model
- producing a zero-emissions iron ore product
- commercialising technology and intellectual property.

We use a range of tools and levers as part of our capital alignment approach.

4.1 Carbon pricing

A shadow carbon price is a hypothetical estimate of the cost of greenhouse gas emissions that is used as a planning tool to help identify revenue opportunities and risks. It is an additional incentive to drive energy efficiencies and emissions reductions, and guide capital investment decisions.

Fortescue uses a range of carbon pricing scenarios in our decision making around our decarbonisation program. Our 'base case' corporate assumption is conservative at A$44/t$CO_2$-eq beyond FY26, which is the current forecast price expectation for Human Induced Regeneration Australia Carbon Credit Units, required for the purpose of government mandated emissions reduction in Australia.

We will continue to review the appropriateness of our carbon pricing and update as required, considering the evolving external policy and regulatory environments.

4.2 Sustainable finance

Fortescue remains committed to sustainability in all aspects of our business. Core to our capital structure is our Sustainability Financing Framework, which enables the issuance of Green Bonds or Loans.

The Framework outlines eligible green projects including renewable energy, green hydrogen and ammonia, sustainable water management and socio-economic advancement and empowerment initiatives. It also outlines a range of impact indicators that will be used for impact reporting for the use of proceeds.

This Framework was utilised in our inaugural Green Bond in April 2022 for US$800 million. Our Eligible Projects continue to progress, largely relating to our renewable energy initiatives through the Pilbara Energy Connect Project and the Green Fleet Energy Hub. We have allocated US$414 million to 30 June 2023, an increase of US$109 million from 30 June 2022.

Allocation reporting is detailed below and provided in our FY23 Annual Report available on our website at www.fortescue.com.

4.2.1 Eligible project allocation

The net proceeds from the US$800m inaugural Green Bond are to be applied to Eligible Green Projects pursuant to the Sustainability Financing Framework. These green projects will be used to fund our decarbonisation. The allocation across eligible project categories is in the table below.

Fortescue has allocated US$414 million (FY22: US$305m) in net proceeds from the issuance of its Green Bond as at 30 June 2023 to Eligible Green Projects as defined within the Sustainability Financing Framework. Fortescue is responsible for the completeness, accuracy, and validity of the information and metrics presented below.

Eligible Project[1]	Eligible Category	Region	Cumulative spend at	
			30 June 2023 US$m	30 June 2022 US$m
Fortescue WAE battery systems	Energy storage	UK / Australia	205	205
Pilbara Generation Project	Renewable energy	Australia	76	20
Pilbara Transmission Project	Renewable energy	Australia	60	51
Green Fleet Energy Hub	Clean transportation	Australia	58	24
Battery Electric Locomotives	Clean transportation	Australia	15	5
Total allocated			**414**	305
Total unallocated			386	495

[1] Represents cumulative, incurred spend to date. Basis of preparation: Eligible Projects outlined above have been determined in accordance with Fortescue's Sustainability Financing Framework (as announced on 9 November 2021) which is available on Fortescue's website. Transmission projects are apportioned based on the percentage of the network powered by renewable energies. The amount attributable to Fortescue WAE was based on forecast revenue at acquisition.
[2] Represents investment in the development of Fortescue WAE battery storage solutions in countries including the UK and Australia.

4.2.2 Eligible project details

Fortescue WAE battery systems: The acquisition of Fortescue WAE enables us to accelerate the decarbonisation of its mining fleet as well as establish a new business growth opportunity.

Pilbara Generation Project: The solar generation component of the energy generation from Fortescue's Pilbara Energy Connect project. This comprises the installation of a 100MW solar photovoltaic (PV) array.

Pilbara Transmission Project: The transmission of solar generated energy from Fortescue's Pilbara Energy Connect Project (this excludes any transmission from gas fired energy generation).

Green Fleet Energy Hub: The Green Fleet Energy Hub includes the development of a 1.5MW Hydrogen Refuelling Station at Christmas Creek to power 10 hydrogen passenger coaches and associated infrastructure.

Battery Electric Locomotives: The decarbonisation of our rail operations with the purchase of two battery electric locomotives, and research into the development of the Infinity Train.

4.3 Capital investment allocation

In September 2022, we announced our capital investment of US$6.2 bn for decarbonisation, with most of this expenditure planned to occur between FY24 and FY28. Aligned with our approach to decarbonisation, we have allocated the investment towards green energy, green fleet and green systems.

The estimated capital required to complete our decarbonisation program is updated and reforecast through to 2030 on a quarterly basis as our studies and engineering design work progresses, as new information is received from the market and as our projects progress. These quarterly capital updates are reported up to our Decarbonisation Steering Committee and our Board and the Decarbonisation capital requirements are considered in the context of the Group's cashflow requirements to determine funding requirements.

Each separable project which forms part of the overall Decarbonisation program will be taken to the Board for Final Investment Decision to approve capital for that project. As we determine the optimal technical solutions to eliminate the last 5-10 per cent of emissions, the incremental capital and operating costs over and above our 'business as usual' expectations will be outlined to our Steering Committee before a decision is made on the preferred solution.

5 OUR TRANSITION PLAN, ACTIONS AND PROGRESS

5.1 Emissions reduction pathways

Fortescue's transition and decarbonisation planning is informed by a number of factors:

- Internal and external climate scenario analysis (refer to section 1.2.3)
- International Energy Agency (IEA) Net zero pathways (refer to section 5.1.1)
- SBTi steel pathway (refer to section 5.1.2)
- Glasgow Breakthrough Agenda (Hydrogen) (refer to Section 5.1.3).

Fortescue is considering the following 2030 breakthrough pathways relevant to our mining and energy sectors:

- zero emission haul trucks and HME
- electrolysers
- batteries and battery management systems
- green hydrogen
- green ammonia
- green iron processes
- ammonia systems for shipping.

Our plans, progress and actions relating to these breakthrough pathways relevant to Fortescue Metals, Fortescue Energy and the consolidated Fortescue value chain are outlined in sections 5.2 to 5.4 below.

5.1.1 The IEA net zero pathway

The IEA's landmark Net Zero Roadmap outlines a pathway to achieve deep emission reductions by 2030 to help reach a net zero target of 2050. The latest edition reflects growth required in the role of key clean energy technologies and global commitments to limiting global warming to 1.5°C[2]. The 2023 update recognises the post-pandemic economic rebound and growth in clean energy technology, but also an increased investment in fossil fuels.

To achieve net zero greenhouse gas emissions from the energy sector by 2050, the Net Zero Emissions by 2050 Scenario (NZE Scenario) depends on the adoption of a broad range of low-emissions technologies and emissions reduction alternatives. It also relies heavily on global cooperation and collaboration. The IEA's NZE Scenario includes:

- tripling renewable energy capacity through the use of solar, wind, and batteries
- doubling the rate of energy intensity improvements.
- accelerating electrification.
- reducing methane emissions (through reduction in fossil fuel use)
- accelerating technology in carbon capture, hydrogen and hydrogen-based fuels, bioenergy and infrastructure.

[2] The path to limiting global warming to 1.5 °C has narrowed, but clean energy growth is keeping it open - News - IEA

We view the IEA technology roadmap as a set of important climate change opportunities that will help Fortescue align to our 1.5°C aligned rapid decarbonisation journey and will also support decarbonisation for our heavy industry peers.

There is a significant risk of technology roadblocks impacting our rapid decarbonisation. Our commitment to unlocking those roadblocks has resulted in our investment in research into decarbonisation of shipping and steelmaking and our transition to a vertically integrated green technology, energy and metals business.

Fortescue Energy's focus is on working to produce commercial scales of technology, renewable electricity and green hydrogen, including derivatives such as green ammonia, to accelerate global decarbonisation of heavy industry, aviation, shipping and fertilisers.

5.1.2 SBTi steel pathway

The IEA NZE scenario assumes growth in steel demand will ease between 2020 and 2030, and slow further between 2030 and 2050, resulting in a steel demand of 1,987Mt in 2050.

The Pathways to Net-Zero: SBTi Technical Summary determines that the range of 1.5°C-aligned cumulative 2020-2050 direct emissions for steel in the literature is 20-40 GT CO_2 and has assessed a number of decarbonisation pathways for the iron and steel industry.

These pathways include a wide range of opportunities available to the iron and steel sector to transform its processes towards near-net-zero steel production, often coupled with demand-side measures such as lightweighting and creating more durable products. Transformation opportunities include:

- increasing scrap use
- increasing energy efficiency
- use of renewable energy for electric arc furnace (EAF) processes
- replacing sintering processes and infrastructure with pelletising
- introducing top gas recycling
- replacing coal used in blast furnaces with biofuels or electrolytic hydrogen.

In order to eliminate the major share of emissions, SBTi suggests that implementation of breakthrough technologies, such as using exclusively electrolytic hydrogen as a reductant or applying carbon capture and storage with high capture rates, becomes crucial.

Technologies such as scrap-based electric arc furnaces, hydrogen-based direct reduced iron (DRI), iron ore electrolysis and further electrification of processes will shift a large share of energy use from coal to electricity.

5.1.3 Glasgow Breakthrough Agenda

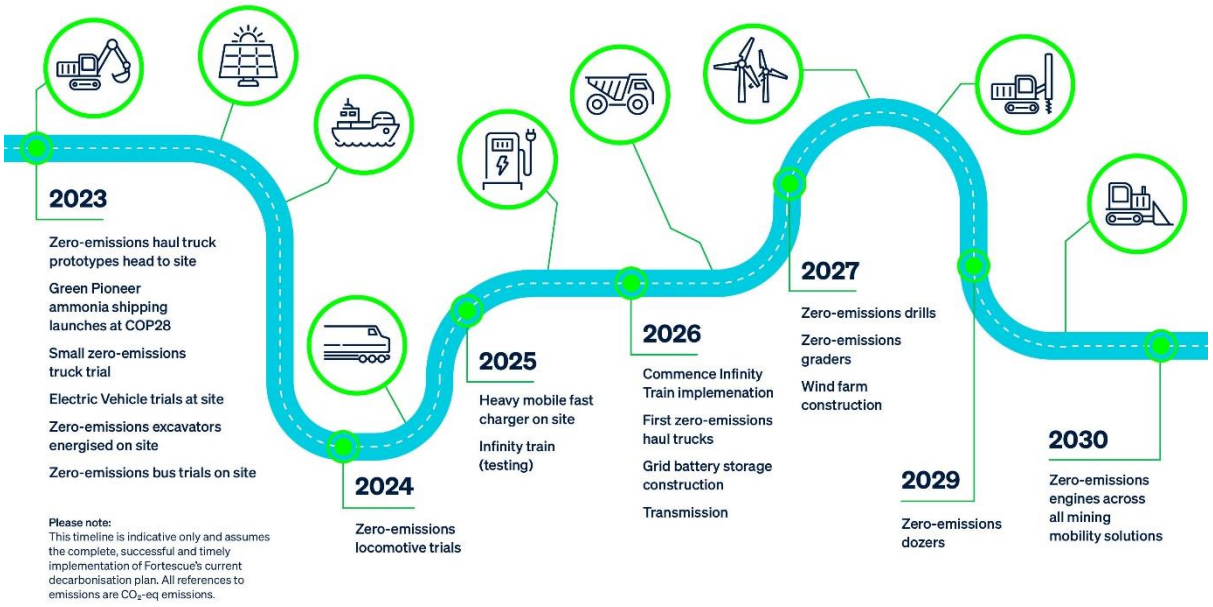
Fortescue actively supports the Glasgow Breakthrough Agenda agreed at COP 26 and participates in the implementation pathways agreed at COP 27. Through our membership of the Green Hydrogen Catapult and the First Movers' Coalition, Fortescue tracks closely the global innovations required to commercialise green hydrogen and its derivatives. We note the International Energy Agency and Business Council of Australia undertook significant work in 2022 through The Sydney Energy Forum hosted by the Australian Government and we continue to consider the practical solutions laid out through these fora to drive the cost effectiveness of hydrogen.

5.2 Fortescue Metals operations

Our decarbonisation plan currently identifies preferred solutions to eliminate approximately 90 per cent of terrestrial Scope 1 and 2 emissions from our Australian iron ore operations. We are finalising our plan for how to eliminate Fortescue's remaining Scope 1 and 2 emissions from our existing and future operations.

During FY22, we first developed the roadmap for our decarbonisation pathway to Real Zero Scope 1 and 2 terrestrial emissions by 2030. This roadmap has since been further developed, with a focus on those business activities producing the majority of our operational emissions: haul trucks and other HME, stationary power and rail.

Our Pilbara decarbonisation roadmap



From FY24 onwards, offsets against Scope 1 and 2 emissions will be purchased and relinquished only to the extent required by legislation. We will focus our efforts on the elimination of real world emissions, as offsets have been shown to be troubled by extensive concerns about quality, lack of additionality and an inability to deliver real reductions in emissions.

5.2.1 Actions

Our actions and progress towards decarbonisation of our operational iron ore emissions are outlined in the table below, together with an indicative timeframe for those actions.

Business Activity	Potential Solutions	Progress to date	Actions		
			Next 12 months	Next 2-3 years	By 2030
Haul Trucks and Heavy Mobile Equipment (HME) *60% of our FY23 Scope 1 emissions*	Battery power. Trailing cables from power grid. Green hydrogen fuel cells.	Liebherr electric excavator delivered to site. Prototype battery-electric haul truck delivered to Christmas Creek.	Prototype hydrogen fuel cell electric truck delivered to Christmas Creek. Site based testing of offboard power units and fast charger. Trials for validating battery electric light vehicles, support mining equipment and electrical infrastructure.	Delivery of first fleet of Liebherr green mining haul trucks. Development of site infrastructure at first site (e.g. fast-chargers, electrical reticulation) to support zero emissions haul trucks and other HME.	Phased delivery of Liebherr zero emissions haul trucks and other HME will be scheduled to align with our fleet replacement programme. Site infrastructure to support zero emissions HME rolled out across all Pilbara operations
Stationary Power *13% of our FY23 Scope 1 emissions*	Wind and solar energy generation or purchase. Grid scale battery systems. Demand response. Reserve power provided by a green fuel such as green ammonia.	60MW solar farm (Chichester Solar Gas Hybrid Project) operational. Pilbara Energy Connect transmission lines constructed between Solomon, Iron Bridge and Port Hedland.	100MW North Star Junction Solar Farm completed. Demand response trials commence on site. Feasibility studies for proposed wind and solar generations sites progress	Pilbara Energy Connect: connection of Eliwana, Cloudbreak and Christmas Creek transmission lines to connect all our Pilbara mining operations into our renewable energy power system. Feasibility studies for proposed wind and solar generations sites complete.	2-3GW of renewable energy and battery storage available for operational requirements. Demand response strategies in place to shift energy demand to times of high energy supply where possible. Reserve power solutions in place.
Shipping *12% of our FY23 Scope 1 emissions*	Ore carriers: green ammonia or green methanol. Tugs: battery-hybrid vessels charged by solar and wind power and generation onboard from a green fuel.	Dry dock maintenance completed for our eight very large ore carries (VLOCs), which included installing variable frequency drives and propeller caps, among other energy saving measures, delivering 5-10% reductions on Scope 1 shipping emissions.	Evaluate the option to convert (or new build equivalent capacity) our eight VLOCs to run on green ammonia. Sea trials of a prototype dual-fuel four-stroke diesel ship engine to run on ammonia. Finalise design for battery-hybrid tugs.	Conversion or new-build of large ore carriers with propulsion system suited for green ammonia or methanol commences. Construction of first of class battery-hybrid tug commences.	All of Fortescue's own ore carriers are powered by green ammonia or green methanol. All of our Port Hedland tug fleet replaced with new battery-hybrid vessels or running on a green fuel alternative to diesel.

Business Activity	Potential Solutions	Progress to date	Actions		
			Next 12 months	Next 2-3 years	By 2030
Rail ***11% of our FY23 Scope 1 emissions***	Battery electric, including our Infinity Train solution. Green ammonia use in locomotives.	Developed and delivered a dual-fuel ammonia-powered locomotive prototype to Solomon. Studies underway on Infinity Train (gravitational energy recharging battery electric systems without any additional charging requirements).	Commissioning and mainline trials of a dual-fuelled prototype ammonia-powered locomotive at Solomon. Infinity Train studies continue.	Decision made on proposed zero emissions rail solution and design finalised.	Zero emissions rail solution operational.
Purchased energy ***100% of our Scope 2 emissions***	Renewable power purchase agreements.	Renewable energy comprises 20% of the electricity we purchase for our Pilbara iron ore operations. Participation in the Pilbara roundtable (led by Western Australia state government) for development of shared electrical infrastructure enabling regional decarbonisation.	Engaging with power providers on a path for 100% renewable power purchase agreements.	Progress renewable energy development in the region to reduce reliance on purchased energy (Scope 2) from fossil fuels.	Any purchased energy is 100% renewable.
Other	Resourcing and strategic direction supporting decarbonisation activities.	Director Decarbonisation role established, along with more than 50 supporting positions throughout Fortescue focussed on Decarbonisation.	Operational readiness and workforce transition plans developed	Site teams actively involved in operationalising decarbonised solutions	Appropriately skilled and trained workforce in place to operate decarbonised energy network and zero-emissions mining fleet

Heavy fuel oil emissions – using LCA to drive decision making

Fortescue recognises the substantial challenge posed by heavy fuel oil (HFO) and its associated hard-to-abate emissions within our existing operations, particularly in relation to our decarbonisation goals. As part of our transition plan, we are actively employing life cycle analysis (LCA) to evaluate the environmental impact of HFO usage throughout our value chain. This approach helps us pinpoint opportunities for emission reduction and aids us in making well-informed decisions to enhance the efficiency of our energy sources.

In the finalisation of technical options within our decarbonisation program, we acknowledge the intricacy of these decisions and the need to strike a balance between technical feasibility, sustainability, and cost considerations. To navigate this complexity, we incorporate LCAs into decision making processes to assess diverse technical choices, scrutinizing their environmental, cost, and sustainability implications. This method ensures that our decarbonisation efforts are not only technically robust but also economically feasible, aligning seamlessly with our long-term sustainability objectives.

By methodically assessing the environmental impact of products and processes, encompassing their entire life cycle from raw material extraction to disposal, LCAs provide valuable insights into the environmental consequences of different energy alternatives. While LCAs play a role in our decision-making process, we also factor in cost considerations to ensure a comprehensive and sustainable approach.

Fortescue's approach to addressing small volume, high-cost marginal abatement items in our carbon itinerary is to employ systems thinking and life cycle analysis to devise solutions. As we progress toward our emissions targets, we anticipate the possibility of significant changes in emissions sources, with previously immaterial emissions potentially becoming more substantial. To proactively address this, we have implemented emissions

5.2.2 Emissions Forecast

We forecast that the Scope 1 and 2 emissions from our Australian iron ore terrestrial operations will initially rise until approximately FY26, reflecting the increase in production at our new Iron Bridge mine as it scales up to nameplate capacity. Decarbonisation activities then will result in decreasing emissions to our target year of 2030.

Figure 5-1: Fortescue's projected terrestrial emissions pathway for Scope 1 and 2 Australian iron ore operations

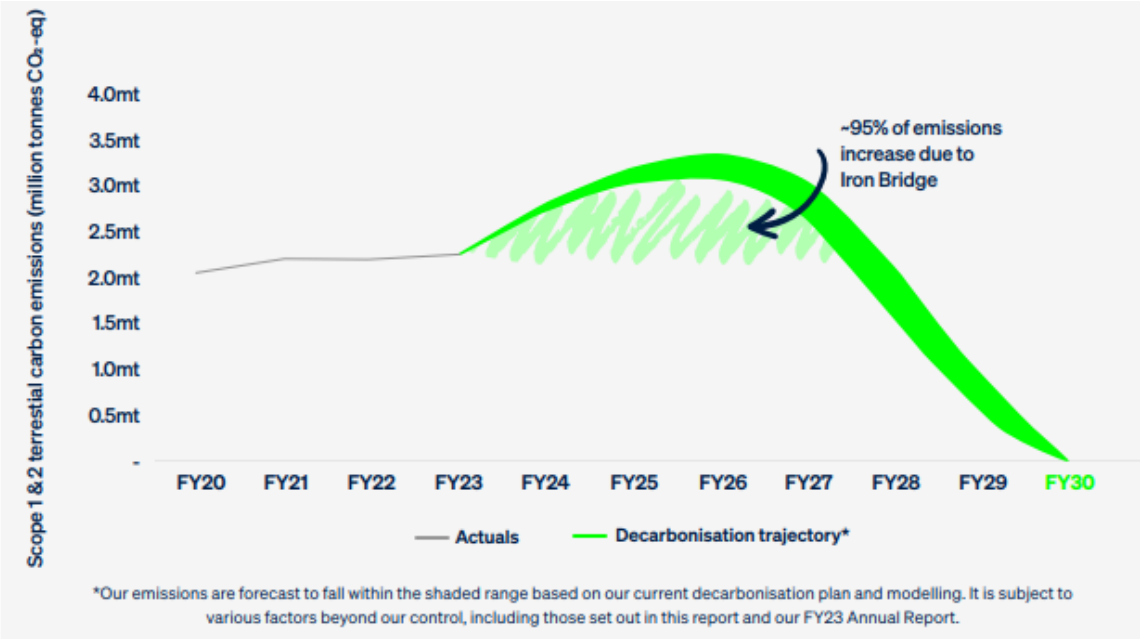


Figure 5-1 represents Fortescue projected terrestrial emissions pathway for Scope 1 and 2 Australian Iron Ore operations: through zero-emissions mobility and renewable energy. This forecast excludes Scope 1 shipping emissions, which accounted for 12 per cent of our Scope 1 emissions in FY23.

Scope 1 and 2 emissions from Fortescue Metals projects and operations outside Australia will be incorporated into emissions forecasts as they become material in our emissions profile.

5.3 Fortescue Energy

We are rapidly diversifying our business to become an integrated green technology, energy and metals business. Through Fortescue Energy, we are establishing the building blocks across technology ownership, manufacturing capability, green energy generation and distribution to deliver across the entire value chain and accelerate our climate transition.

We are also actively collaborating for the commercialisation of the technologies required to decarbonise our operations and create green hydrogen and green ammonia. These solutions can be applied to decarbonisation of hard-to-abate sectors such as shipping and iron and steel production.

5.3.1 Fortescue Future Industries Projects

IEA NZE 2050 Insight – Hydrogen

Hydrogen and hydrogen-based fuels can play an important role in the decarbonisation of sectors where emissions are hard to abate and alternative solutions are either unavailable or difficult to implement, such as heavy industry and long-distance transport.

The announcements for new projects for the production of low-emission hydrogen keep growing, but only 5 per cent have taken firm investment decisions due to uncertainties around the future evolution of demand, the lack of clarity about certification and regulation and the lack of infrastructure available to deliver hydrogen to end users. On the demand side, hydrogen demand keeps growing, but remains concentrated in traditional applications. Novel applications in heavy industry and long-distance transport account for less than 0.1 per cent of hydrogen demand, whereas they account for one-third of global hydrogen demand by 2030 in the NZE Scenario. A growing number of countries are releasing national strategies and adopting concrete policies to support first movers. But the delays in the implementation of these policies and the lack of policies for demand creation are preventing the scale-up of low-emission hydrogen production and use.

To get on track with the NZE Scenario, accelerated policy action is required on creating demand for low-emission hydrogen and unlocking investment that can accelerate production scale-up and deployment of infrastructure.

Fortescue Future Industries is focused on the green hydrogen and ammonia challenges in the IEA NZE2050 pathway. Our goal to produce 15Mt of green hydrogen by 2030 will position Fortescue to contribute to approximately 20 per cent of the projected global demand for low emission hydrogen by 2030.

Fortescue Energy has a target to bring up to five green hydrogen, green ammonia or green products projects to Final Investment Decision by the end of calendar year 2023. Currently our focus is on five key regions:

- **USA.** Across the US, we are actively developing several potential green hydrogen projects including near Phoenix, Arizona.
- **Australia.** A proposed 550MW green hydrogen facility, and with Incitec Pivot Limited, a proposed green ammonia facility. Both are currently in the front-end engineering design (FEED) stage at Gibson Island.
- **Kenya.** A proposed, up to 300MW, geothermal steam-to fertiliser facility in the Olkaria region is currently in the pre-feasibility stage. The project is aimed at the production of green ammonia for domestic use in Kenya, with the Government of Kenya as the sole off-taker.
- **Norway.** A proposed 300MW green ammonia facility is currently in the pre-feasibility stage, with renewable energy secured via a long-term conditional Power Purchase Agreement with Statkraft to support our operational plans.
- **Brazil.** A proposed green hydrogen and green ammonia facility at the Port of Pecem, Ceará is in the pre-feasibility stage.

5.3.2 Fortescue WAE

As part of our transition to an integrated green technology, energy and metals business, we acquired Williams Advanced Engineering (WAE) in March 2022 to expand our capacity to

undertake research and develop and commercialise innovative green, low-carbon solutions, in alignment with the IEA NZE2050 pathway estimates for battery storage and projections for zero emission heavy haulage requirements.

Fortescue WAE started as an offshoot of the Williams F1 team and has developed into a world-leading technology and engineering business renowned for its groundbreaking projects in high performance battery systems and electrification.

5.3.3 Fortescue Hydrogen Production Systems

IEA NZE2050 Insight – Electrolysers

Electrolysers are a critical technology for the production of low-emission hydrogen from renewable or nuclear electricity. Electrolysis capacity for dedicated hydrogen production has been growing in the past few years, but the pace slowed down in 2022 with about 130MW of new capacity entering operation, 45 per cent less than the previous year. However, electrolyser manufacturing capacity increased by more than 25 per cent since last year, reaching nearly 11GW per year in 2022. The realisation of all the projects in the pipeline could lead to an installed electrolyser capacity of 170-365GW by 2030.

Electrolysis capacity is growing from a low base and requires a significant acceleration to get on track with the NZE Scenario, which requires installed electrolysis capacity to reach more than 550 GW by 2030.

Fortescue Hydrogen Production Systems facilitates the technological development and manufacture of electrolysers and other hydrogen production technologies, both for commercial application and internal use in decarbonising our operations to Fortescue.

5.3.4 Actions

Business Activity	Potential Solutions	Progress to date	Actions		
			Next 12 months	Next 2-3 years	By 2030
Fortescue Future Industries	Green hydrogen Green ammonia Renewable energy	Partnership with the U.S. Department of Energy's National Renewable Energy Laboratory to advance green hydrogen production and technologies.	5 FFI projects to achieve financial investment decision. Life cycle analyses completed for key Fortescue Energy commodities.		Production of 15Mt of green hydrogen.
Fortescue WAE	High performance batteries Zero-emissions power systems	Fortescue WAE developed through acquiring of WAE, to facilitate in-house technology development. Prototype battery-electric haul truck delivered to Christmas Creek. WAE Kidlington factory opened (prototype development for green mobility).	WAE Banbury facility to be opened (manufacturing heavy industry, battery modules and fully assembled power systems). Life cycle analyses completed for key WAE manufactured products.	Delivery of first fleet of Liebherr green mining haul trucks with WAE zero emissions power systems.	Development of the Infinity Train (gravitational energy recharging battery electric systems without any additional charging requirements).
Hydrogen Production Systems	Electrolyser technologies Electrolyser manufacturing	Construction and handover of the Gladstone Electrolyser Manufacturing (GEM) Centre Development of the Metal Membrane Technology purification process, in partnership with CSIRO.	Ammonia cracker prototype development (extracting green hydrogen from green ammonia using a metal membrane technology purification process), through a partnership with CSIRO. Life cycle analyses completed for key Hydrogen Production Systems products.		

A number of Fortescue Energy progress and action items are also included within the scope of Fortescue Metals operations (Section 5.2.1) reflecting a dual commercial and internal purpose. These are noted in blue text within the table above.

5.3.5 Emissions Forecast

Emissions from Fortescue Energy commodities are subject to life cycle analysis (LCA) during development. Projected emissions will be incorporated into emissions forecasts as they become material in our emissions profile.

As our business model transitions and our Fortescue Energy projects progress, we will incorporate forecasting for other regions or activities into this document when they represent a material component of our emissions profile or reach final investment decision.

5.4 Value chain

5.4.1 Plan

Our primary approach to reducing Scope 3 emissions is to develop projects and technologies with a focus on reducing emissions from iron and steel manufacturing and to work with current and prospective customers on the application of the technology and the supply of green hydrogen and ammonia from Fortescue Energy.

Additional information on the context and transition planning for our most emissions intensive Scope 3 categories is provided below.

5.4.1.1 Steel manufacturing

IEA NZE2050 Insight – Steel

Steel has been increasingly in the spotlight in discussions on decarbonising industry, but efforts in the iron and steel sector need to accelerate significantly to get on track with the NZE Scenario. The emissions reduction potential of conventional process routes and scrap is limited, and so innovation this decade will be crucial to commercialise new near zero-emission steel production processes, which account for eight per cent of primary production in 2030 in the NZE Scenario.

The global energy crisis has not stalled progress on project announcements, especially for the direct reduction of hydrogen (H_2-DRI). However, the current pipeline of low- and near zero-emission projects falls short of what is required to meet the NZE Scenario, and high-emission projects make up around two thirds of all announced projects worldwide.

Steel manufacturing includes both the conversion of iron ore into iron, and further processing into steel. Most of the emissions in the traditional steel value chain are associated with the conversion of iron ore into iron. Both processes are normally undertaken by our customers, in steel mills primarily located in China and emissions associated with these activities contribute 98 per cent of Fortescue's scope 3 emissions.

Reduction processes

Green iron is metallised iron produced from iron ore without generating any greenhouse gas emissions. There are two primary technologies for the emission-free reduction of iron oxides, namely:

1. Hydrogen reduction, either in a fluidised bed reactor or shaft furnace, is the most mature green iron technology at present.

2. Electrochemical reduction, including Fortescue's Direct Electrochemical Reduction (DER) technology.

In addition to the reduction technologies above, the inherent grade of the iron ore feedstock (the iron content and gangue content) will influence the further processing required after the reduction step. In the case of lower quality ores, the sponge iron produced in the hydrogen reduction process will require further processing to remove gangue, typically by melting the product in an electric smelting furnace and removing the gangue as slag, producing pig iron.

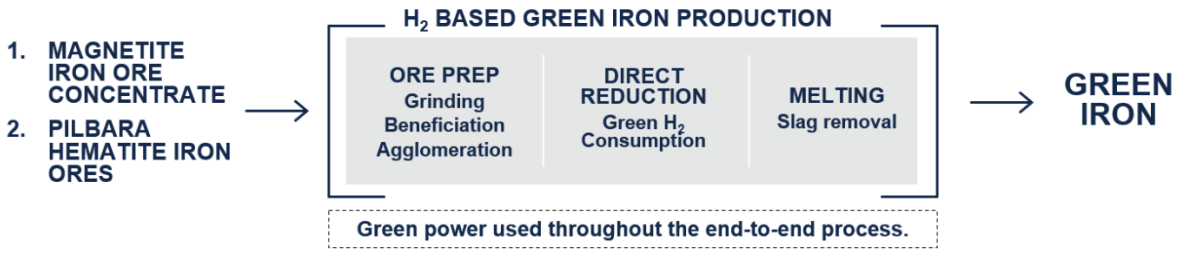


Figure 5-2: Hydrogen-based reduction process

Steelmaking processes

Following the conversion of iron ore to iron, metallic iron is readily and safely transportable and, in the form of high purity pig iron, usable by any steel plant in a basic oxygen furnace (BOF) or electric arc furnace (EAF).

There is a common misconception that green steel production requires the use of very high-quality iron ore (called "direct reduced iron-grade ore", or DRI ore), which constitutes a small part (approximately five per cent) of the globally traded iron ore volumes. This DRI grade ore is processed into pellets (emitting about 0.06tCO_2-eq per tonne of product), which are then used as feedstock in a shaft furnace for reduction into sponge iron, typically using natural gas. The sponge iron is then either compressed into briquettes for transportation (known as hot briquetted iron) or fed directly into an EAF or BOF for conversion into steel. This natural gas fuelled steelmaking process typically emits about 1.1 tCO_2-eq per tonne of crude steel. However, replacing the above process with a "fluidised bed direct reduction – electric melting furnace – steelmaking" process enables the elimination of the pelletising step and enables the use of lower-grade ore.

There is some debate within the global steel industry on what constitutes "green steel". Steel contains carbon so it cannot be completely carbon-free. However, green steel needs to eliminate (or minimise) the harmful emissions in its production. One view is that green steel will be "Near-Zero Steel" with attributable CO_2-eq emissions in the range of 400kg/t of crude steel produced (if no scrap is used) down to 100kg/t (if 100 per cent scrap is used).

Steelmaking transition

Fortescue's transition strategy for achieving our 2030 steelmaking emissions intensity target, and contributing to our Scope 3 2040 target consists of three distinct activities:

1. Developing or co-developing the green iron **reduction and processing technologies** that specifically work with Fortescue's Pilbara magnetite and hematite iron ore products.

2. Producing the **enablers** for these green iron processes, namely green iron ore, green hydrogen and renewable power. These enablers must be produced at the required scale, in the required location (or be transportable), at the required time and at a competitive price. Our transition plan, outlining the roadmap for production of these enablers is discussed in Section 5.3.
3. Build and operate a **pilot green iron facility** to demonstrate that Fortescue iron ores can be used, together with a green iron process, effectively and efficiently at scale. This will provide confidence for the steel industry regarding the technical and economic feasibility of green iron and steel using our ores.

Progress and actions supporting Fortescue's steelmaking transition plan are outlined in section 5.4.

Our commitments in this area are intrinsically linked with net zero commitments and progress of the major Asian steelmaking nations of China (2060), Japan (2050) and South Korea (2050). Although the industry ambition is clear, the timeframes over which commitments have been made vary greatly and the detailed pathway to net zero for the steel industry is still highly uncertain.

5.4.1.2 Chartered cargo shipping

IEA NZE2050 Insight – International Shipping

In 2022 international shipping accounted for about two per cent of global energy-related CO_2 emissions. While the revised emissions reduction targets recently announced by the International Maritime Organization (IMO) are now in line with the goals set out in the Paris Agreement, legally binding measures for the implementation of the revised strategy will be needed to steer the maritime shipping sector onto a trajectory consistent with the NZE Scenario, which requires an almost 15 per cent reduction in emissions from 2022 to 2030. Technological innovation, supportive policies and collaboration across the value chain are needed to drive the adoption of low- and zero-emission fuels and technologies for oceangoing vessels.

Fortescue is engaging with the shipping industry to reduce, and eventually eliminate, emissions from shipping, in parallel with our work to decarbonise our fleet of eight ore carriers using green ammonia.

We are currently developing a prototype dual-fuel (diesel/ammonia) four-stroke ship engine which will undergo sea trials this year aboard Fortescue's 75m Green Pioneer vessel. The demonstration of this technology in action will be used to advocate for adoption of similar decarbonisation technologies by our chartered shipping partners and the broader maritime industry.

We continue to support the IMO's targets and engage with industry to support the Australian Government's representation on the IMO Marine Environment Protection Committee.

5.4.1.3 Purchased Goods and Services

Purchased goods and services account for around one per cent of Fortescue's Scope 3 emissions. Fortescue's transition plan for purchased goods and services is centred on identifying and progressing decarbonisation opportunities within our supply chain.

Fortescue partners with world's largest steel maker to reduce emissions across iron and steelmaking

In June 2023, Fortescue entered into a MoU with China Baowu Steel Group Corporation (China Baowu) to work together on reducing emissions associated with iron and steel making.

This collaboration will explore lower emissions iron making technology at one of China Baowu's operations in China using Fortescue iron ore and green hydrogen, iron ore beneficiation research and development and collaboration opportunities in renewable energy and green hydrogen.

China Baowu Steel Group Corporation (China Baowu) is the world's largest steel enterprise, producing 132 million tonnes of steel in 2022. In January 2021, China Baowu released its low carbon metallurgy road map which outlined its commitment to achieve carbon neutrality by 2050, building an open platform to work with partners to explore technology solutions with an aim to reinvent the steel-making process and reshape the low-carbon value chain.

5.4.2 Actions

Scope 3 Category	Potential Solutions	Progress	Actions		
			Next 12 months	Next 2-3 years	By 2030
Steel manufacturing *98% of our Scope 3 emissions*	Green iron reduction and processing technologies Enablers for green iron processes (green hydrogen, green iron ore, renewable power). Green iron production pilot facility. R&D inhouse and with steel mills, engineering companies and research institutions.	Emissions reduction MOU with China Baowu. Green ironmaking process MOU with Primetals Technologies and voestalpine. Pilot green iron installation developed using low temperature electrolysis. First high-grade magnetite ore produced from Iron Bridge.	Boodarie Strategic Industrial Area green iron production investment study.	Ramp up of Iron Bridge high grade magnetite production to nameplate capacity.	7.5% reduction in Scope 3 steelmaking emissions intensity from FY21 baseline.
Chartered cargo shipping *1% of our Scope 3 emissions*	Development and demonstration of technology. Engaging with industry.	Demonstration of emissions reduction techniques during dry-docking maintenance of Fortescue's eight VLOCs.	Demonstration of dual-fuel diesel-ammonia emissions reduction technology for large commercial vessels through Green Pioneer Sea trials,		
Purchased Goods and Services *1% of our Scope 3 emissions*	Identifying and progressing decarbonisation opportunities within our supply chain. Integrating climate change requirement into source-to-contract processes. Life cycle assessments used in decision making processes.	Dedicated decarbonisation team established within our Procurement function. Decarbonisation program and supplier expectations communicated to 21 key suppliers at a Contractor Forum.	Emissions mapping case study on emissions accounting with a critical supplier.		

Fortescue, Primetals Technologies, and voestalpine to jointly evaluate groundbreaking green ironmaking plant

In December 2022, Primetals Technologies, together with its strategic partners Mitsubishi Corporation, Fortescue, and globally leading steel and technology group voestalpine, signed a MoU.

The partnership is aimed at designing and engineering an industrial-scale prototype plant with a new process for net-zero-emission ironmaking at the voestalpine site in Linz, Austria. The collaboration will also investigate the implementation and operation of the plant.

The new ironmaking process will be based on Primetals Technologies' HYFOR and Smelter solutions. HYFOR is the world's first direct reduction process for iron ore fines that will not require any agglomeration steps, like sintering or pelletizing. A pilot plant has been in operation since the end of 2021, and Primetals Technologies has run numerous successful test campaigns over the last year including successful trials on Fortescue's Pilbara iron ore products.

The new Smelter technology from Primetals Technologies is a furnace powered by electrical energy. It is used for melting and final reduction of DRI based on lower-grade iron ores. In that way, it produces alternative green hot metal for the steelmaking plant.

The project planning phase will be used to design an industrial-scale prototype plant with a capacity of between three to five tons of green hot metal per hour. It is the first solution to link a hydrogen-based direct reduction plant for iron ore fines with a Smelter.

The main goal of the project planning phase is to develop the basis for decision to realize a prototype plant capable of continuous operation, and then to gain the know-how needed for the next step, a commercial full-scale plant. Another target is to investigate the use of various types of iron ores to produce DRI, hot briquetted iron (HBI), and hot metal and, as a next step, draw conclusions about the individual process steps as well as different combinations of them.

The hydrogen used in the new plant will mainly come from Verbund, voestalpine's and Austria's leading renewable energy producer, who operates a proton exchange membrane (PEM) electrolyser named H2Future. Located in Linz, this plant has a capacity of over 6MW, and is still the world's largest of its kind used at a steel plant. The H2Future plant will be upgraded to allow for the compression and storage of hydrogen gas before use in the combined HYFOR and Smelter plant.

5.4.3 Forecast

An internal Scope 3 emissions forecast will be developed to assist with scenario modelling, target setting and business strategy, including the impact of customer selection on the ability to meet our scope 3 emissions reduction target.

6 NATURE

Fortescue supports the protection of biodiversity, as outlined within our Environment Policy. We commit to achieving a net positive impact on biodiversity and work collectively to reverse forest loss and land degradation, in line with the Glasgow Leaders Declaration on forest and land use.

6.1 Taskforce on Nature-related Financial Disclosures

The Taskforce on Nature-related Financial Disclosures (TNFD) has developed a risk management and disclosure framework for organisations to report and act on evolving nature-related risks, with the ultimate aim of supporting a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes. Fortescue is a member of the TNFD forum, and we have commenced a pilot assessment for a number of our sites, using the LEAP integrated assessment process for nature-related risk and opportunity management:

- **Locate** your interface with nature
- **Evaluate** your dependencies and impacts
- **Assess** your risks and opportunities
- **Prepare** to respond to nature-related risks and opportunities and report.

The outcomes of the pilot assessments will contribute to our understanding of nature-related dependencies and impacts for the pilot sites, which include operational iron ore facilities in the Pilbara, the Ivindo Iron Belinga project in Gabon and a US-based green hydrogen project in the early stages of development through Fortescue Energy. The pilot will also inform planning for future disclosures aligned with the TNFD framework.

7 A JUST TRANSITION

7.1 Building sustainable communities

Fortescue is committed to ensuring that the communities in which we operate benefit from our success. We provide training, employment and business opportunities for local people. As we transition to a low carbon world there will be challenges for some communities and we aim to engage with and support these communities. As part of this transition, new jobs will be created and others will evolve.

Our social investment programs focus on providing opportunities to vulnerable and indigenous communities and empowering women and children. We also commit to supporting communities to become resilient to the physical impacts of climate change.

These programs, guided by our existing Social Investment Framework, ensure investment is aligned with our business objectives, our sustainability strategy and the United Nations Sustainable Development Goals.

Fortescue's economic contribution creates wealth in our Australian economy and around the world, with payments to our employees, suppliers and shareholders, and to the governments of the countries where we operate totalling A$26.3 billion in FY23.

In FY23, we also contributed over $100 million through our voluntary social investment programs, reflecting our investment in philanthropic, community and commercial initiatives. These investments aim to build sustainable communities and focus on areas of health, wellness, education, regional development, environmental responsibility, arts and culture and providing employment and training opportunities to local and First Nations people. Contributions include financial (donations, grants, employee contributions, matched giving, partnerships, local training programs, support for local communities and Pilbara residential FIFO employees), in-kind contributions (volunteering, use of company equipment, logistical support and donation of products) and management costs.

Our Metals division also has established community and First Nations business development programmes, including:

- **Billion Opportunities**
  Our commitment to communities extends to delivering practical initiatives that drive economic and employment opportunities for First Nations people, evident through our award winning Billion Opportunities program which aims to build the capability of First Nations businesses.
  Since it was established in 2011, more than $4.6 billion in contracts have been awarded to over 190 First Nations businesses, with 27 contracts to the value of $577 million awarded in FY23. At Iron Bridge alone, we have awarded $370 million in contracts to Nyamal Traditional Custodians
- **VTEC**
  The Vocational Training Employment Centre (VTEC) program is a key part of our training and development strategy and is built on the concept that, following the completion of training, participants are guaranteed employment. Through the VTEC program, Fortescue continues to provide sustainable career pathways for First Nations people, with over 1,400 First Nations people employed through VTEC since 2006.

7.1.1 Skills transition in our operations

Fortescue's people are at the heart of our decarbonisation strategy. Our people are designing, building, constructing and operating towards our decarbonised future. Our people and their drive, skills and commitment to living the Values, will help us achieve our Real Zero plans by 2030.

Metals

In FY23 we undertook a high-level assessment to understand the characteristics of our future Metals operational workforce and identify the skills we will need to develop in order to be successful. Our goal is for our workforce to have a smooth and well-timed transition to our decarbonised future. We are confident that with the right investment in professional, trade and training pathways, we will create many opportunities for up and cross-skilling of our existing workforce. The following fields were identified as key areas of future skills development:

- electrician
- battery maintenance
- electrical engineering
- cable management.

While the coal industry has used cabled, electrified mining equipment for some time, this is an emerging area of capability for Fortescue. We are establishing cable management capabilities in preparation for the first three electric excavators in FY24 which are due for delivery on site in FY24.

People who will be well placed for our workforce of 2030 are currently in high school, TAFE or university. We are investing through our Next Gen program to help our future workforce to understand their opportunities in our decarbonised future.

Energy

We have developed a green energy workforce forecasting tool and skills database and have mapped the shortest training pathways to create local green energy jobs and training to help enable a just transition.

We are using this information to work with governments, academia, community, and other industry to develop training curriculum. Fortescue recognises that pathways to employment and training are most effective when they are introduced at the primary and secondary school level. We have developed a Green Energy Education program, designed to engage school students in the call for action on climate change and stimulate interest in green jobs.

In Kenya, Fortescue is working with academic institutions to help ensure benefits of the just transition accrue via:

- local workforce development and training
- use of local goods and services
- industrial development, capacity, and competency building.

Fortescue has established a partnership with Strathmore University (Kenya), to support the development of Africa's first Post Graduate Diploma in Green Energy Operations in conjunction with Curtin University (Australia). Fortescue conducts these activities within the context of ensuring respect for human rights and eradicating modern slavery.

7.2 Modern slavery and the supply chain

Fortescue recognises the risks of modern slavery in our supply chain, particularly beyond Tier 1 and Tier 2 where visibility and transparency of worker conditions is challenging. Acknowledging this risk, and consistent with our Human Rights Policy, Fortescue undertakes supplier due diligence to identify, assess and address modern slavery risks in our supply chain. Our approach too addressing potential modern slavey risk is detailed in our annual Modern Slavery Statement.

Renewable energy technologies and fuels has been identified as a high-risk procurement category for Fortescue. Renewable technologies, such as solar panels, batteries and wind technologies, are critical to achieving the decarbonisation of our mining operations and green energy goals.

These industries are recognised globally for higher risks of modern slavery, with long supply chains extending to high-risk countries, lack of transparency and limited leverage. Raw materials and components for the production of renewable technologies are often sourced from, and/or manufactured by, suppliers beyond Tier 1 in high-risk countries.

Renewable fuels, such lubricants comprising of palm oil, are also associated with heightened human rights risks due to poor labour conditions in production.

Additional information is available in our most recent Modern Slavery Statement, which is available on our website at www.fortescue.com.

8 CLIMATE GOVERNANCE

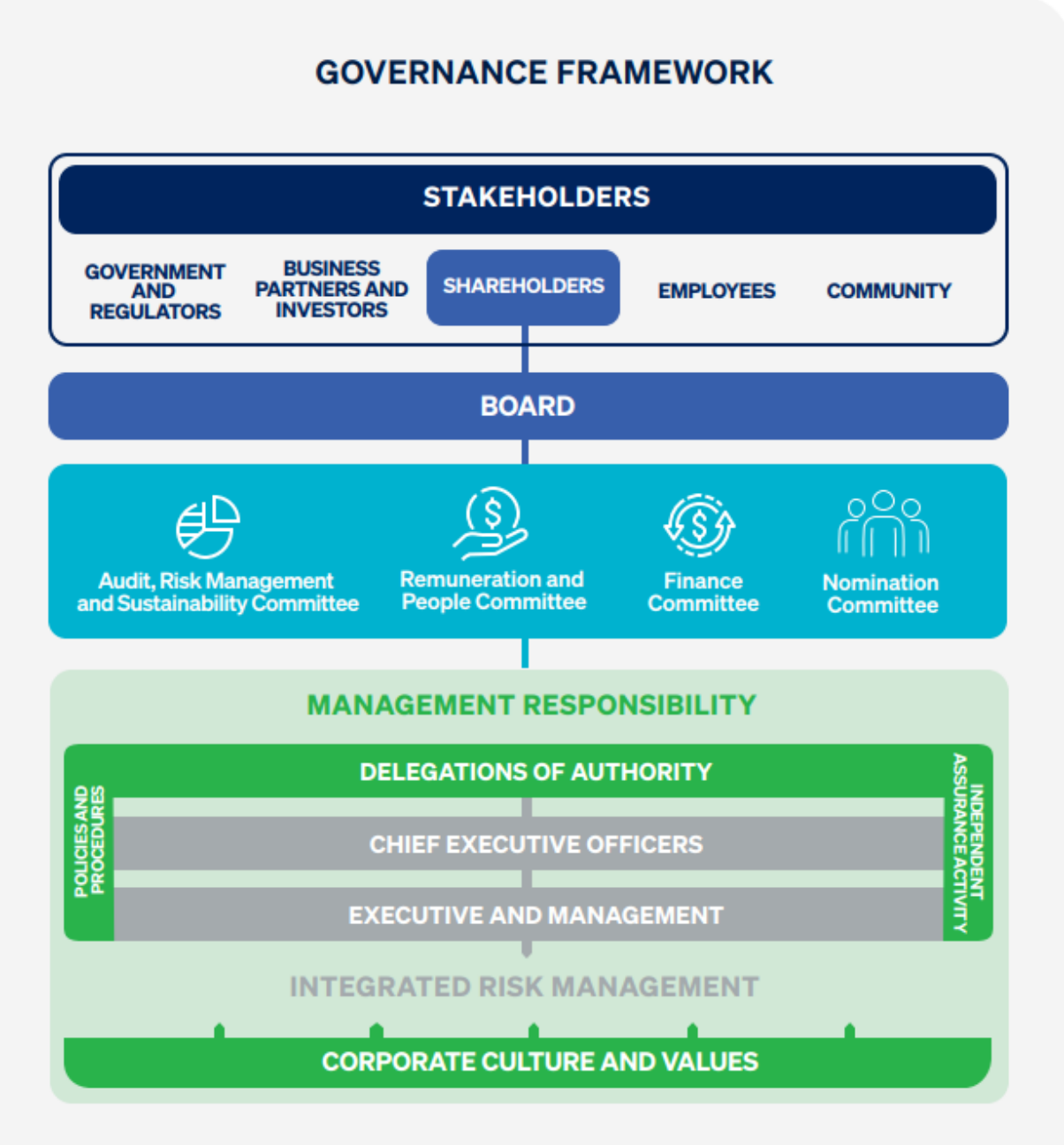
Good corporate governance is critical to the long-term sustainable success of Fortescue.

Good governance is the collective responsibility of Our Board of Directors (the Board) and all levels of management. Fortescue seeks to adopt leading practice and contemporary governance standard and apply these in a manner consistent with our culture and values.

Our overall approach to corporate governance is outlined in the FY23 Corporate Governance Statement, available on our website at www.fortescue.com

The Board is responsible for oversight of all sustainability matters, including climate change, receiving regular updates through the Audit, Risk Management and Sustainability Committee (ARMSC). The ARMSC is a Board committee that operates under a Board-approved charter, consisting of a minimum of three non-executive directors, in which the Chair is an independent director and independent directors form the majority. The committee meets quarterly and receives updates on climate change, decarbonisation and sustainability at each meeting.

Collectively, our directors have a diverse and relevant range of skills, backgrounds, knowledge and experience to ensure effective governance of the business. To the extent that any skills are not directly represented on the Board, they are augmented through management and external advisors. Specific climate and sustainability related skills and experience of the Board include understanding the business challenges, strategy and options associated with managing human rights risks. Board members such as Penny Bingham-Hall and Jean Baderschneider have specific experience in the management of climate related issues.



8.1 Policy

Fortescue's strong action to address climate change is embedded throughout the business. We operate under our Climate Change Policy, cementing our commitment to realising the goals of the Paris Agreement.

Our Climate Change Policy sets out our strategy for industry-leading emission reduction targets, developing our global portfolio of renewable green hydrogen and green ammonia operations and decarbonising our own operations, amongst other commitments. Our Climate Change Policy is updated biannually, or when a significant advance is identified.

A significant advance was published in our FY23 Climate Change Report, with the commitment to eliminate voluntary carbon offsets for Scope 1 and 2 emissions from FY24

onwards. Offsets have been shown to be troubled by extensive concerns about quality, lack of additionality and an inability to deliver real reductions in emissions. In FY23, voluntary offsets cost Fortescue US$6.2 million. The elimination of voluntary offsets will allow us to better focus such resources on solutions that reduce fossil fuel use. Through Fortescue Energy, we will provide a viable alternative to fossil fuels. An update to our Climate Change Policy will follow to fully embed this commitment within the business.

We recognise the interconnection of climate change with other environmental and socioeconomic topics, specifically the climate and human rights nexus as well as the biodiversity, climate, energy and water nexus. Other internal policy relating to climate change includes:

- Human Rights Policy: Fortescue is committed to respecting and supporting the human rights of all people including our employees, the communities in which we operate, those within our supply chains and those who may be impacted by our activities. Our approach to sustainability is founded on respect for human rights. Refer to Section 7 for further details.
- Free, Prior and Informed Consent Position Statement: Fortescue acknowledges and respects the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the human rights principles it upholds, including the principle of Free, Prior and Informed Consent (FPIC). We strive to obtain and maintain the FPIC of affected Indigenous Peoples across all phases of an activity's lifecycle.
- Environment Policy: Fortescue is committed to being a leader in safeguarding the environment and taking accountability for our impacts. Our mission to decarbonise our operations and provide opportunities for global decarbonisation through the creation, use and sale of green energy will have environmental and community benefits including air quality, ecosystem function, pollution abatement and will promote economic development.
- Our Water Working Group is currently developing a Water Policy outlining our commitment and strategy, which is expected to be released during FY24, laying the foundation for a consistent approach to water management across Fortescue.

8.2 Risk management

The Audit Risk Management and Sustainability Committee (ARMSC) is responsible for the oversight of Fortescue's response to climate risk matters.

From FY25, we will comply with International Financial Reporting Standards (IFRS) S2 Climate Related Disclosures. This standard builds on the framework of the TCFD and we are working to implement systems and process to meet the more detailed and quantitative disclosure requirements, including disclosure of the current and anticipated financial effects of climate change over the short, medium and long term. This work will be aligned with the enterprise-wide Risk Management Framework and will include the further identification and management of climate-related risks and opportunities.

Over 200 risks associated with our Decarbonisation program were identified through a series of 15 workshops involving over 100 people. These are managed by business owners and all captured in our Corporate Risk Management system. Progress in managing these risks and are reported to the Board regularly and key program risks are discussed by the Decarbonisation Steering Committee and Board regularly.

8.3 Management authorities

8.3.1 Sustainability Committee

At the management level, the Sustainability Committee is responsible for monitoring and coordinating our overall response to ESG and climate change, ensuring risks are managed and considered from a whole of business perspective. The CEO (or delegate) chairs the committee which comprises executives and technical experts from across the business, including the areas of Finance, Environment, Investor Relations, Sustainability, Risk Management, Energy and Procurement and Logistics. The Sustainability Committee meets at least four times a year and provides updates and advice to the ARMSC on a range of issues.

8.3.2 Decarbonisation Steering Committee

The Decarbonisation Steering Committee comprises the Fortescue Metals and Fortescue Energy CEOs and CFOs and additional executives as required depending on the topics for discussion. The Decarbonisation Steering Committee endorses capital investment decisions in advance of these progressing to the Board; makes decisions on solution selection; reviews program progress, including updated capital estimates and provides guidance and direction to the Decarbonisation program leadership.

An internal audit of the decarbonisation program governance was completed during FY23, with all required actions planned to be closed during FY24.

8.3.3 Day-to-Day management

Our CEOs are accountable for the implementation of our Climate Change Policy and driving progress against our climate change targets across Fortescue.

The day-to-day implementation and coordination of our climate change activities is undertaken by our Sustainability team in close collaboration with other areas of the business. Our Sustainability team includes climate change specialists that provide guidance and advice to the business on relevant matters.

Other teams across Fortescue’s operations also undertake key climate related activities including Environment, Investor Relations, Decarbonisation, Finance, Sales and Marketing, Shipping and Risk Management.

8.4 Executive remuneration

Targets related to achieving decarbonisation program milestones and quantifiable emissions reductions have been built into employee and executive short term incentive plans from FY24 onwards. In addition, the three-year executive long term incentive plans have contained targets related to emissions reductions since FY21.

9 ENGAGEMENT

9.1 Stakeholder engagement

Investor interest in sustainability, including climate change, continues to grow. We value opportunities to better understand the interests and concerns of our investors and are committed to ongoing engagement.

This year there was particular focus on our industry-leading decarbonisation plan, emission reduction targets, FFI green projects and our Sustainability Financing Framework. Fortescue remains committed to sustainability in all aspects of our business.

9.2 Policy engagement

Addressing climate change requires strong international collaboration, including between governments and the private sector. Fortescue seeks to work with policy-makers globally, both directly and through partnerships, to promote initiatives that can support rapid decarbonisation. When engaging on issues related to climate and energy policy, we advocate for swift, ambitious and well-considered action in line with the goals of the Paris Agreement. This includes engaging with governments regarding:

- Setting binding short and medium term climate targets that align with 1.5°C climate scenarios
- Establishing a price on carbon through effective forms of carbon taxation
- Creating a level-playing field for green energy to compete by removing government support for fossil fuels (such as subsidies)
- Using mandates and regulation to create demand for green energy and products
- Providing incentives to kick-start new technologies and fuels, such as green hydrogen
- Collaborating with the private sector to research, develop and manufacture new clean technologies
- Ensuring climate financing is available to support green energy projects globally, including in the developing world
- Removing roadblocks to the rapid scale up of renewable energy, such as infrastructure gaps, permitting delays and trade barriers.

Government and policy engagement is coordinated and overseen by Fortescue's External Affairs function, which reports directly into our executive leadership. This ensures that all government engagement is managed in a way that is consistent with the vision and direction from the Board.

Fortescue has welcomed and provided input to recent policy moves such as the adoption of the US Inflation Reduction Act (IRA), the further strengthening of the EU's climate ambitions and binding decarbonisation targets, and Australia's Hydrogen Headstart programme.

10 ADVOCACY

Fortescue places a significant degree of importance on high-impact advocacy to shape government policy, inform public audiences on emerging climate impacts and rally industry counterparts to join us in accelerating climate ambition.

We have used our voice at multilateral forums and events to encourage stronger global action on climate, from both governments and the private sector.

Global advocacy at Fortescue is led by the Executive Chairman, Dr Andrew Forrest AO, alongside key executives including:

- Elizabeth Gaines, Global Ambassador
- Dino Otranto, Fortescue Metals CEO
- Mark Hutchinson, Fortescue Energy CEO.

In 2023, Fortescue has targeted key regional and high-level audiences to drive forward this agenda with leading presences at:

- the **Climate Finance Mobilisation Forum** with President Biden and His Majesty The King
- the **Africa Climate Summit** as part of the UN Regional Climate Week framework headed to COP 28
- the **Boao Asia Forum**
- **Climate Week NYC** alongside the UN General Assembly High-Level Week.

Fortescue considers its membership of the UN Race to Zero Coalition is a significant enabler of credible advocacy and we look forward to strong continued collaboration through the High-Level Champions.

Fortescue is proud to have been a founding member of President Biden's First Movers Coalition, the Amazon Climate Pledge and the Green Hydrogen Catapult. We are also a strong founding partner of the Green Hydrogen Organisation. Taken together, our work to rally industry counterparts helps drive forward agreed international workstreams and deliver practical action to drive technology cost reductions capable of enhancing widespread adoption of green energy.

Fortescue is strongly of the view that climate action must be inclusive and interdisciplinary. To further that objective, we engage closely with universities and leading think tanks to elevate climate science and ensure public awareness of its projections.

In 2023 to date, Fortescue has engaged with a range of leading academic institutions including:

- University of Oxford (Smith School, Trinity College and Rhodes House)
- University of Cambridge (Cambridge Zero and Kings College)
- University of Exeter
- Delft University of Technology (TU Delft)
- MIT (School of Engineering)
- Harvard University (Kennedy School)
- Brookings Institution

- University of California (Los Angeles)
- University of California (Santa Barbara)
- University of California (Berkeley)
- Stanford University
- University of Western Australia.

Fortescue has also undertaken broad-based, inclusive and creative advertising campaigns to target infrequently reached audiences with compelling and informative information on climate science and practical action necessary to abate it. These included campaigns spanning social media, print media, high visibility billboards, public transportation systems, sky-drone shows and opinion pieces in key news outlets.

We recognise the imperative on business to act and take responsibility, but also that this can only be truly effective when supported and enabled by government action and smart climate policy.

10.1 Our public commitments

Fortescue demonstrates its commitment to sustainability through its support of policies and public commitments including:

- The United Nations Global Compact (UNGC) which requires a comprehensive approach to sustainability and the UN Sustainable Development Goals (SDGs.).
- The UN Guiding Principles on Business and Human Rights, UN Declaration on the Rights of Indigenous Peoples, and the Voluntary Principles on Security and Human Rights, all of which commit Fortescue to the highest standards on human rights.
- Australian Indigenous engagement and support with over A$4b to Indigenous-owned companies since 2011 through the Billion Opportunities program. Fortescue is also the second largest employer of First Nations Australians.
- Gender Equality.
- Biodiversity: achieving a net positive impact on biodiversity, which in part aligns to the UN Kunming Montreal biodiversity framework.

Fortescue is also a member/signatory of the Climate Leaders Coalition; UN Race to Zero Coalition; and the World Economic Forum First Mover's Coalition.

10.2 Memberships

We are members of a broad range of industry groups and associations, allowing us to contribute in a coordinated way to the development of effective policy frameworks, share best practice and access information and insights on material topics.

Associations and organisations are assessed against specific criteria before membership is recommended. All memberships must be approved by the relevant CEO or an approved delegate.

Criteria considered in the selection and approval of memberships includes:

Selection and approval criteria	
Value proposition	Benefits of joining and value to Fortescue.
Policies and public positions	Alignment of the association's policies and public positions with our Values, objectives and policy framework, particularly regarding climate change, environmental stewardship, sustainability, diversity, human rights, employment of First Nations peoples and community engagement.
Conditions of joining and ongoing obligations	Internal commitment needed to meet conditions of memberships and ongoing obligations or standards.
Members	Existing members of the association, reputation and potential risks.
Governance	Strong governance demonstrating the association's competency, diversity, skills and experience.
Management	Internal dedicated Executive to manage relationship and obligations.

This year, we participated in over 70 industry groups and associations, contributing $2 million in fees.

In FY22, we discontinued previous memberships with DomGas Alliance and the New South Wales Mineral Council, due to climate policy misalignments. Several memberships were discontinued in FY23, though none as a result of policy misalignment. One membership currently remains under investigation for potential misalignment with our policies and public positions.

Our FY23 Industry Association Report is available at www.fortescue.com

10.3 Research and collaboration

Given the considerable challenge in achieving our targets, we have initiated a range of partnerships with research organisations, not for profit organisations and consortiums to accelerate this work. We also fund research for other key areas of interest, including biodiversity and environmental stewardship.

In FY23, we contributed over A$10.5 million to science and technology research and over A$4.6 million to biodiversity and conservation research. We consider all our research organisations and partnerships for FY23 to be generally aligned with our Values and commitments. You can find more on our partnerships in our FY23 Industry Association Report on our website www.fortescue.com.

APPENDIX A RACE TO ZERO CHECKLIST

Minimum criteria required for participation in the Race to Zero campaign[3]

Meta-criteria	Starting line practices / Leadership practices	Report reference
Pledge	Pledge at the head-of-organisation level to reach (net) zero GHGs as soon as possible, and by 2050 at the latest, in line with the scientific consensus on the global effort needed to limit warming to 1.5C with no or limited overshoot, recognising that this requires phasing down and out all unabated fossil fuels as part of a global, just transition.	Section 3
	Set an interim target to achieve in the next decade, which reflects maximum effort toward or beyond a fair share of the 50% global reduction in CO_2 by 2030.	N/A – our real zero Scope 1 and 2 target is for 2030
	Targets must cover all greenhouse gas emissions: 1. Including scopes 1, 2 and 3 for businesses and other organisations; 2. N/A 3. N/A 4. Including land-based emissions.	Section 3 Noting, land-based emissions to be considered in future.
	Target absolute zero or net negative emissions Reduce emissions to absolute zero with no remaining residual emissions, or go further and ensure your activities remove more GHGs than they produce.	Section 3
	Adopt inclusive boundaries Widen the scope of your target to include cumulative emissions, especially where these are significant (for all actors) and / or consumption emissions (for cities, states, and regions).	For future consideration
	Alongside your pledge, set additional and separate targets to mitigate emissions beyond your value chain or territory These additional targets must supplement, not substitute for value chain or territorial mitigation targets, and should clarify what will be achieved via reductions versus removals. These targets should prioritise what is most needed to reach net zero emissions at a global level.	For future consideration
	Set specific targets for short-term reduction of methane and other GHGs Pledge to reduce methane emissions by at least 34% by 2030, in line with the IPCC's 6th Assessment Report, and make near-term pledges to reduce other high global warming potential GHG emissions.	For future consideration, unlikely to be a priority for Fortescue.
	Protect nature Pledge to halt deforestation and protect biodiversity, making your activities consistent with climate resilient development. Pledge to make finance consistent with climate resilient development including ending deforestation and conversion of other natural ecosystems, and respecting biodiversity.	Section 6, Environment Policy
	Contribute to 2030 Breakthroughs Set sectoral targets in line with the 2030 Breakthroughs or more ambitious sector targets.	Section 5.1
Plan	Within 12 months of joining, publicly disclose a Transition Plan, City/Region Plan, or equivalent which outlines how all other Race to Zero criteria will be met, including what actions will be taken within the next 12 months, within 2-3 years, and by 2030.	This Plan

[3] Race to Zero Criteria 3.0 - Google Docs

Meta-criteria	Starting line practices / Leadership practices	Report reference
	Support a just transition Explain how you will support communities affected by both climate impacts and the climate transition, and strengthen their participation in achieving the global goal of halving emissions by 2030, seeking to address injustices and build towards a more equitable future.	Section 7
	Integrate nature Drawing on the Convention on Biological Diversity, integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.	Section 6
	Empower stakeholders Explain what actions you will take to empower other stakeholders in your community and beyond to achieve their own targets, embracing the spirit of radical collaboration. Include how you will support the Sustainable Development Goals. Identify in your plan how you will help build the resilience of, and drive funding to, developing countries to achieve a just, inclusive transition.	Section 9
Proceed	Take immediate action through all available pathways toward achieving (net) zero, consistent with delivering your interim targets. Where relevant, contribute to sectoral breakthroughs.	Section 5
	Contribute beyond your own value chain In addition to following a science-aligned net zero pathway to reduce your own emissions and neutralise any residual emissions that remain, contribute toward global (net) zero through beyond value chain mitigation efforts, such as the purchase and retirement of high-quality carbon credits (emission reductions, avoidance or removals) that do not substitute for nor delay emissions reductions necessary to meet the Pledge.	Section 2.5 Voluntary carbon credits are not part of Fortescue's transition plan.
	Prioritise emissions-intensive sectors Take immediate action to protect standing forests and avoid and reduce emissions in the most GHG-intensive activities and sectors, while not neglecting longer-term efforts. Align to the 2030 Breakthroughs sectoral targets.	Section 5
	Scale up climate solutions Proactively grow activities that contribute to the achievement of global net zero, such as new technologies, business models, policy approaches, and community practices.	Section 5
	Empower your ecosystem Empower those in your ecosystem to implement Race to Zero plans, including through financing, capacity building, knowledge-sharing, and access to resources. In particular for financial institutions, scale-up investment in emerging markets and developing countries.	Section 5
Publish	Report publicly progress against both interim and longer-term targets, as well as the actions being taken, at least annually. Report in a standardised, open format, and via platforms that feed into the UNFCCC Global Climate Action Portal.	This Plan Annual Climate Change Report CDP Climate Change
	Report on progress in and beyond your value chain Outline progress both regarding within-value-chain emissions reductions and investment made / action taken outside of your value chain. Report on how you have allocated resources and capacities to achieve the short-term and longer-term targets.	This Plan Annual Climate Change Report CDP Climate Change

Meta-criteria	Starting line practices / Leadership practices	Report reference
Persuade	Within 12 months of joining, align external policy and engagement, including membership in associations, to the goal of halving emissions by 2030 and reaching global (net) zero by 2050.	Section 10.2 Annual Memberships and Associations Report
	Activate the ambition loop Proactively advocate for your peers, stakeholders, and governments to align their goals and actions to 1.5C. Demonstrate how the implementation of your own ambitious targets creates opportunities for others to follow.	Section 9
	Mainstream (net) zero alignment Advocate for appropriate regulation and facilitating measures to ensure that alignment to 1.5C becomes the default for all actors.	Section 9

DISCLAIMER

Our report contains certain statements which may constitute “forward-looking statements”. Words that may indicate a forward-looking statement include words such as “intend”, “aim”, “ambition”, “commitment”, “aspiration”, “project”, “anticipate”, “likely”, “estimate”, “plan”, “believes”, “expects”, “may”, “should”, “could”, “will”, “forecast”, “target”, “set to” or similar expressions.

Examples of forward-looking statements include: our projected and expected production and performance levels; our plans for major projects including investment decisions; our expectations regarding future demand for certain commodities; the assumptions and conclusions in our climate change related statements and strategies; and our plan to achieve Real Zero as described in this report.

Any forward-looking statements in this report reflect the expectations held at the date of this document. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual decisions, results, values, achievements or performance to differ materially from those expressed or implied in any forward-looking statement. Forward-looking statements are based on assumptions regarding Fortescue’s present and future business strategies and the future conditions in which Fortescue expects to operate. Forward-looking statements are also based on management’s current expectations and reflect judgments, assumptions and information available as at the date of this report. Actual and future events may vary materially from the forward-looking statements made (and the conclusions and assumptions on which the forward-looking statements were based) because events and actual circumstances frequently do not occur as forecast and future results are subject to known and unknown risks such as changes in market conditions and regulations.

Some of the various factors that could cause Fortescue’s actual results, achievements or performance to differ from those in forward-looking statements include: geopolitical and political uncertainty; trade tensions between major economies; the impacts of climate change; supply chain availability and shortages; the impacts of technological advancements including but not limited to the viability, availability, scalability and cost-effectiveness of technologies that can be used to decarbonise our business; our ability to profitably produce and transport minerals and/or metals extracted to applicable markets; the availability of skilled personnel to help us decarbonise and grow our businesses; new ore resource levels, including the results of exploration programmes and/or acquisitions; inadequate estimates of ore resources and reserves; our ability to successfully execute and/or realise value from acquisitions and divestments; our ability to raise sufficient funds for capital investment; disruption to strategic partnerships; damage to Fortescue’s relationships with communities and governments; labour unrest; our ability to attract and retain requisite skilled people; declines in commodity prices; adverse exchange rate movements; delays or overruns in projects; change in tax and other regulations; cybersecurity breaches; the impacts of water scarcity; natural disasters; the ongoing impacts of the COVID-19 pandemic; safety incidents and major hazard events; and increasing societal and investor expectations, including those regarding environmental, social and governance considerations.

Accordingly, forward-looking statements must be considered in light of the above factors, and others, and Fortescue cautions against undue reliance on such statements. Recipients should rely on their own independent enquiries, investigations and advice regarding information contained in this report. Fortescue makes no representation, guarantee, warranty or assurance, express or implied, as to the accuracy or likelihood of the forward-looking statements or any outcomes expressed or implied in any forward-looking statements contained in this report being achieved or proved to be correct.

Except as required by applicable regulations or by law, Fortescue disclaims any obligation or undertaking to publicly update or review any forward-looking statements, whether as a result of new information or future events.

Past performance cannot be relied on as a guide to future performance.