



2023 Sustainability Report

Delivering for a
sustainable future



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This document also describes Aurizon's approach to scenario analysis of long-term coal scenarios, bulk scenarios, containerised freight scenarios and ESG targets. The scenario analysis that informs this document was undertaken by Aurizon, supported by expert third party review and analysis. The scenario analysis is based on the information available at the date of this document and/or the date of Aurizon's planning processes or scenario analysis processes. There are inherent limitations with scenario analysis and it is difficult to predict which, if any, of the scenarios might eventuate. Scenarios are neither predictions nor forecasts and do not constitute definitive outcomes for Aurizon. We do not assign probabilities and future performance may be outside of the ranges presented. Scenario analysis and the outcomes of those scenarios rely on assumptions that may or may not be correct or eventuate, or be impacted by additional factors to the assumptions disclosed.

Statements about the future

This document contains “forward-looking statements”. The words “expect”, “anticipate”, “likely”, “intend”, “should”, “could”, “may”,

“predict”, “plan”, “propose”, “will”, “believe”, “forecast”, “estimate”, “goals”, “aims”, “target”, “may imply” and other similar expressions are intended to identify forward-looking statements. Indications of, and guidance or outlook on, future states of affairs are also forward-looking statements. The forward-looking statements are not based on historical facts, but rather on current beliefs, assumptions, expectations, estimates and projections of Aurizon. Accordingly, these statements are subject to significant business, economic and competitive risks, uncertainties and contingencies associated with the business of Aurizon (both known and unknown) which may be beyond the control of Aurizon, which could cause actual results, developments or trends to differ materially, including but not limited to competition, industry downturns, inability to enforce contractual and other arrangements, legislative and regulatory changes, sovereign and political risks, ability to meet funding requirements, dependence on key personnel and other market and economic factors. Neither these statements nor past performance are guarantees, predictions or indications of future performance. Except as required by applicable regulations or by law, Aurizon is not under any obligation to update these forward-looking statements (or scenario analysis) to reflect events or circumstances that arise after publication. Aurizon makes no representations as to the accuracy or completeness of any such statement or that any scenarios discussed will be achieved. Aurizon cautions against reliance on any forward-looking statements or guidance.

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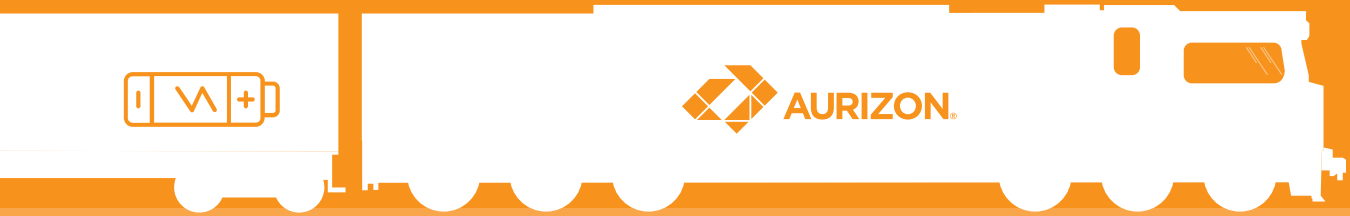


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Acknowledgement of Country

We acknowledge the Traditional Custodians of this land and pay our respects to the Elders past, present and future, for they hold the memories, the traditions, the culture and hopes of Aboriginal Australia. We must always remember that under the ballast, sleepers, rail systems and office buildings where Aurizon does business, the land was and always will be traditional Aboriginal land.

Delivering for a sustainable future



The first freight locomotive, built in Australia, **powered by batteries**

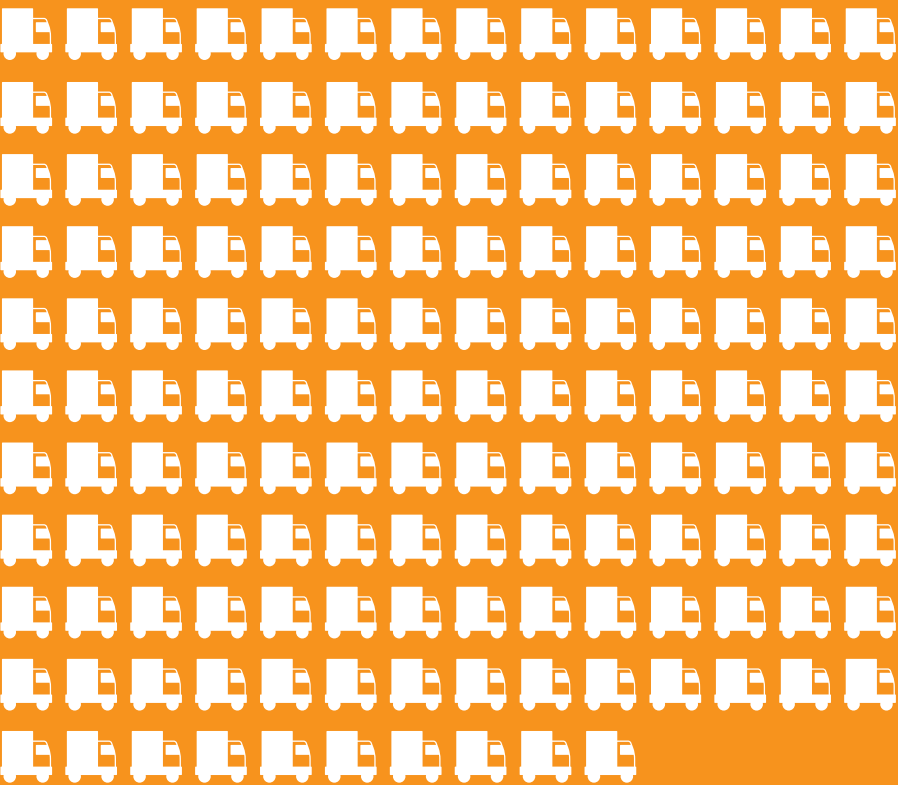
The zero-emissions capable prototype is a core initiative as Aurizon moves to decarbonise its business; see page 53.



Net **Zero** operational emissions target

Aurizon is committed to a target of net-zero operational emissions (scope 1 and 2) by 2050¹.

For more about our investment in innovative solutions and the progress we have made towards our commitments and emission targets, see our Climate change and Environment chapters, starting on page 52.



150 equivalent semi-trailer trucks per single freight train

For more on our continued advocacy for rail in the transition to a low-carbon economy, see page 19.





Planting
more than
50,000
trees

on a 118 hectare site has the potential
to generate -1,300 Australian Carbon
Credit Units per annum.



Over
570
charities

have been supported by
the Aurizon Community
Giving Fund, since its
inception in 2011.



More than
86%
of employees

live and work in
regional Australia.

0.6%
decrease



in Aurizon's operational emissions intensity
compared to the prior year.

For more about our emissions, see our
Climate change and Environment chapters,
starting on page 52.

\$1.7
billion

spent with suppliers
across Australia.



¹ ESG-related aspirations and targets described in this document are discussed in detail in the risk section of the Directors' Report, as well as prior Aurizon Sustainability Reports and Aurizon's Climate Strategy and Action Plan, available at www.aurizon.com.au/sustainability. These documents describe the important assumptions which underpin these aspirations and targets, as well as applicable risks to their achievement (which are further described on page 27 of this document).





Managing Director and CEO message

*Andrew Harding,
Managing Director And CEO*

On behalf of Aurizon, I am pleased to share Aurizon's tenth Sustainability Report, demonstrating the significant progress we have made with key sustainability initiatives during the past 12 months. These initiatives are helping build a stronger and more sustainable business that collectively benefits our employees, communities, customers and stakeholders.

As Australia's largest integrated rail freight business, we recognise the importance of providing transparency in how we are managing the risks and opportunities in relation to our environmental, social and governance matters.

Aurizon is committed to achieving a target of net-zero operational emissions by 2050, with a range of long- and short-term initiatives underway. You can read more about these initiatives in this report, together with our Climate Strategy and Action Plan, which is available on our website.

The decarbonisation pathway requires a long-term focus and a comprehensive understanding of emerging low-carbon technologies. From its inception in 2020, our \$50 million Future Fleet Fund will support the work needed in this space over the subsequent decade.

One of the standout initiatives, a first for Australia, is the work we commenced in mid-2023 on a prototype for a zero-emissions capable freight locomotive. Our diesel locomotive fleet is responsible for the majority of our greenhouse gas emissions, so this is an exciting project as we aim to develop the next generation of low-carbon freight solutions for our customers.

Another key initiative to support commercial sustainability in the decades ahead is our strategic pivot to further grow our Bulk and Containerised Freight businesses. We have made significant investment during the past year to support this growth in emerging, non-coal markets. We are now well positioned in these markets, and able to leverage Aurizon's large network of rollingstock assets, rail haulage expertise and a national footprint.

At Aurizon we are committed to protecting our people, our customers and the communities in which we operate. During 2023, we continued to focus on embedding our safety strategy,

by simplifying systems and processes, understanding and controlling risk, and building leadership and the capability of our people. This extends to supporting our employees' mental wellbeing with a number of key initiatives, which you can read more about inside.

While I am pleased to report an improvement in our key operational safety metrics, we remain concerned with the number of level crossings incidents that occurred during the year. We are determined to work with the community to do more to protect our drivers. While there is already a range of measures to support level crossing safety, we are working across three broad areas — engineering and technical; advocacy with regulators and government; and education and awareness — in order to see further improvement on level crossing safety.

As a business it is important that we contribute to the communities in which our employees live and work. Through our Community Giving Fund, we provide cash grants to eligible community organisations with projects focused on community safety, environment, education or health and wellbeing. This year, 69 deserving groups benefitted, bringing the total number of local charities we have supported since 2011 to more than 570.

We acknowledge and respect the Traditional Owners of the land and the communities where our operations are based. Our third Reconciliation Action Plan, released in 2022, sets out the actions we are taking to achieve our vision and to contribute to our nation's reconciliation efforts.

We are committed to effectively managing our environmental performance and recognise that we are responsible for helping our local communities and supply chains to deliver environmental value through effective management of environmental risks.

We will continue to engage in responsible dialogue with our customers, our communities and stakeholders as we work together to achieve sustainable growth.

I am proud to be on this journey with our incredible people as we forge a stronger and more sustainable business for now and into the future.

On behalf of Aurizon, I am pleased to share our tenth Sustainability Report.

What we do

Aurizon (ASX: AZJ) is Australia's largest integrated rail freight business.

Our everyday business is built on moving a nation. We move a comprehensive range of commodities, including mining, agricultural, industrial and retail products for a diverse range of customers across Australia. We provide customers with integrated freight and logistics solutions across an extensive national rail, road and port network that traverses Australia.

With our fleet of around 700 locomotives and 15,000 wagons, we transported around 250 million tonnes of Australian bulk commodities and around 100-thousand Twenty-Foot-Equivalent (TEUs) of containerised freight in Financial Year (FY) 2023, connecting miners, primary producers, and industry with international and domestic markets.

We hold the long-term lease and operate one of the world's largest coal rail networks, the

Central Queensland Coal Network (CQCN), a critical piece of infrastructure supporting about 90% of Australian metallurgical coal export volume. We also hold the long-term lease and operate the nationally significant north-south rail infrastructure from Tarcoola to Darwin. Our rail, road and port services operate in Queensland (QLD), New South Wales (NSW), Victoria, South Australia (SA), Western Australia (WA) and the Northern Territory (NT).

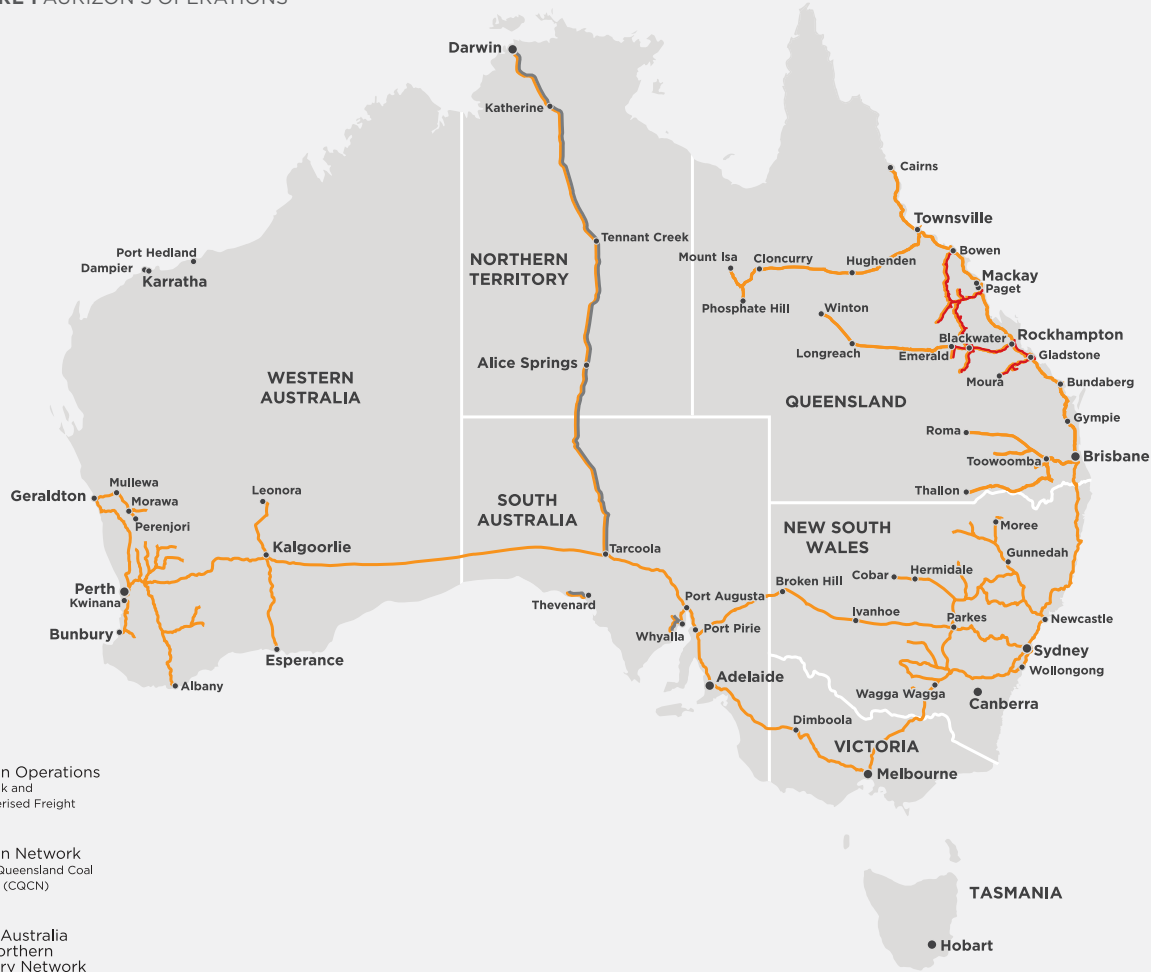
What we deliver

Our key operational areas are Operations (Coal, Bulk, Containerised Freight), and Network.

Operations

Our Coal business provides a critical service to Australia's \$127 billion² export coal industry, the nation's largest source of export revenue in FY2023. We haul around half of Australia's export coal volume. As a supply chain partner for our customers, we transported 185 million tonnes of coal in FY2023.

FIGURE 1 AURIZON'S OPERATIONS



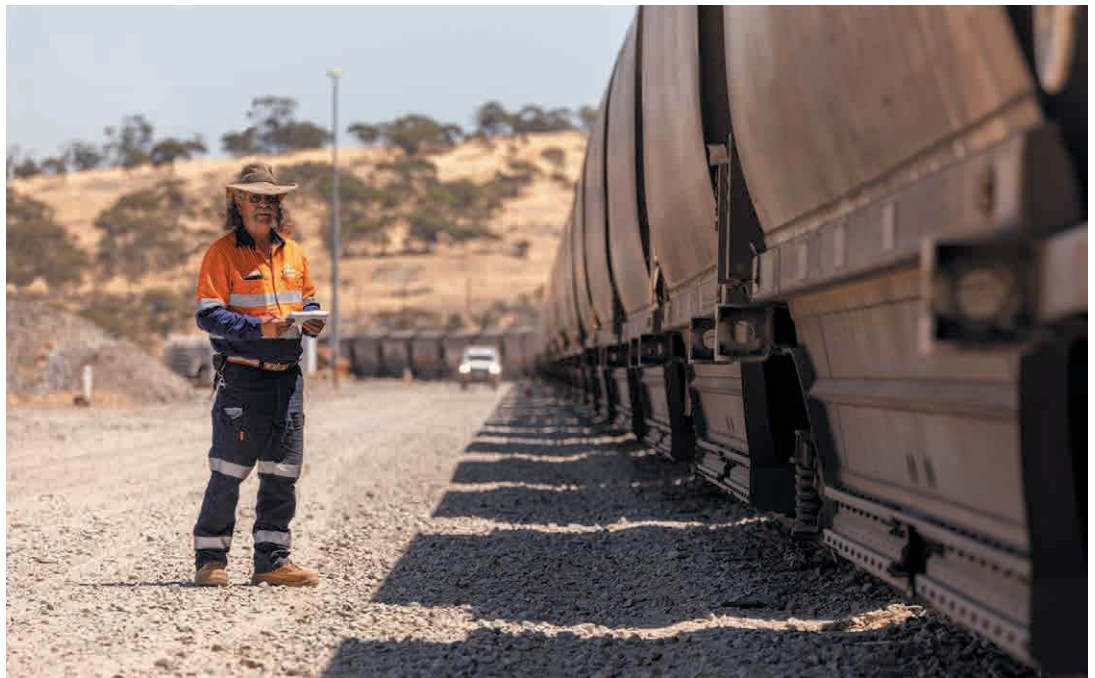
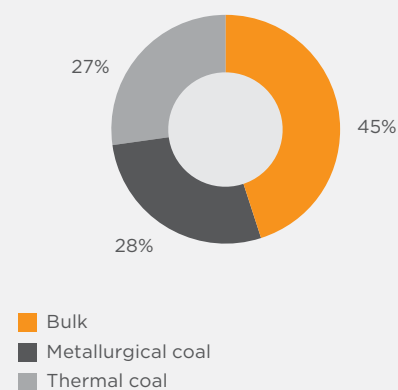


FIGURE 2 OPERATIONS REVENUE FY2023³



Coal hauled is split almost evenly between metallurgical coal and thermal coal, with demand linked to Asian steel production and energy generation, respectively. We connect mines in the Newlands, Goonyella, Blackwater, Moura, and West Moreton systems in QLD, and the Hunter Valley and Illawarra coal systems in NSW, with domestic customers and coal export terminals. We are the only rail operator with services to all six coal export ports on Australia's east coast. Our Coal business continues to invest in and develop initiatives that give our customers greater insight into their ordering, rail planning and daily activities. With a strong contract book, we aim to improve Return on Invested Capital (ROIC) and preserve

cash flows for the Coal business while safely providing excellent service for our customers.

The nature of Aurizon's haulage contracts provides greater certainty for our future revenue streams, as well as greater commercial and operational certainty for all stakeholders across the supply chains in which we operate.

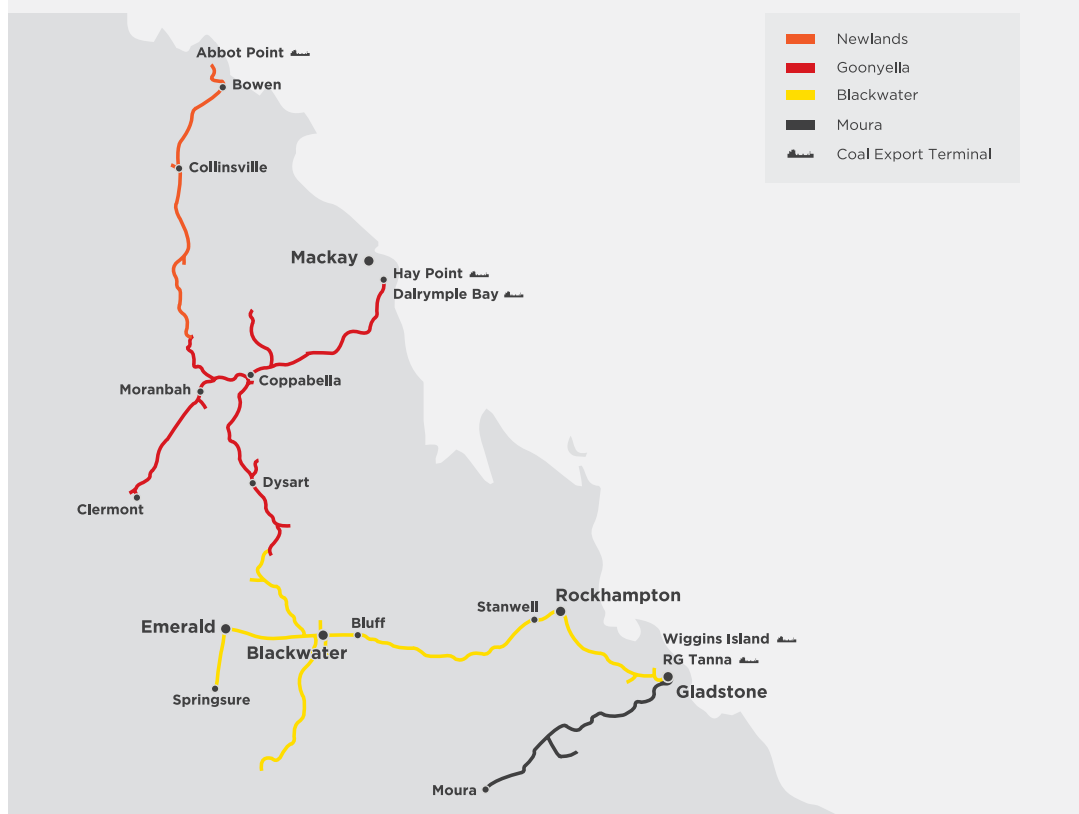
The growth of Bulk and Containerised Freight has provided a more diverse haul-type and geographic exposure, with non-coal revenue now comprising 45% of non-Network revenue (figure 2) — up 11 points from FY2022.

Our Bulk business includes haulage of a range of bulk commodities, such as iron ore, bauxite, alumina, base metals, rare earths, grain, livestock and fertiliser-related products. During FY2023, our Bulk business delivered 68 million tonnes of commodities. The business also provides supply chain services to customers, including ballast cleaning, hook-and-pull, and port services.

In QLD, we service the North-West Minerals Province from Mount Isa to the Port of Townsville, including bulk storage and handling services as part of Aurizon Port Services (APS). We also service the south-west regions of the state. In NSW, the Bulk business holds long-term leases at the Port of Newcastle, with ship-loading facilities adjacent to rail lines. To support the strong export industry in WA, we continue to deliver our customers' products to the ports of Geraldton, Esperance, Fremantle, Kwinana, Bunbury and Albany.

² Australian Bureau of Statistics.

³ Revenue (FY2023) is the sum of the Coal (excluding all track access) and Bulk (net of track access expense) business units and excludes the Network business unit. Coal revenue allocated (metallurgical/thermal) based on estimated volume split.

FIGURE 3 AURIZON'S CENTRAL QUEENSLAND COAL NETWORK (CQCN)

We operate and manage the CQCN under 99-year leases from the QLD Government.

In SA and the NT, our new Bulk Central business provides bulk freight services and operates the 2,200 kilometre (km) Tarcoola-to-Darwin railway line. This geographic expansion gives Aurizon greater exposure to commodities associated with new economy markets.

Our customers' needs drive our broader focus on Bulk logistics (not just rail) to offer an integrated service with production-to-port capability.

Our Containerised Freight business provides rail linehaul services for customers in Australia's growing interstate freight market. This includes the transportation of vital supplies for communities across Australia, including retail and supermarket goods, perishables and refrigerated goods, vehicles, machinery and equipment.

The business leverages Aurizon's large network of rollingstock assets, rail haulage expertise and a national footprint, with operations in every mainland state and the NT. Aurizon continues to invest in the growth of this business, with new locomotives, wagons, and terminal and port services infrastructure.

In early 2023, Aurizon Containerised Freight secured an 11-year contract with cornerstone customer Team Global Express (TGE) for the delivery of rail linehaul services connecting Perth, Adelaide, Melbourne, Sydney and Brisbane. This large-scale contract will provide rail capacity on these key routes, not only for

TGE, but a range of other customers seeking linehaul services between Australia's major capital cities.

Network

We operate and manage the CQCN under 99-year leases from the QLD Government. These leases commenced in 2010. The CQCN connects over 40 mines to five export terminals, as well as to domestic customers (figure 3).

The CQCN is a critical part of the global supply chain, with around half of all global seaborne export metallurgical coal (used for steel production) travelling across the network. This 2,670 km multi-user track network comprises four major coal systems: Newlands, Goonyella, Blackwater and Moura.

The Goonyella Abbot Point Expansion (GAPE) is the connecting link for the Newlands and Goonyella systems. Around 70% of volume hauled across the network is considered metallurgical coal (the other 30% is thermal coal), with demand linked to Asian steel production. Access to our rail network is managed under a process approved by the competition regulator, the Queensland Competition Authority (QCA).

Our strategy

Our Strategy in Action framework, defined by our purpose, vision and values, continues to guide Aurizon's pursuit of value creation and service delivery for customers and communities across Australia (figure 4), with a particular emphasis on safety and exploring opportunities to decarbonise our fleet in support of net-zero operational emissions by 2050⁴.

Our Strategic Levers, which help us prioritise key drivers of value, also remain fundamental in how we execute on these priorities throughout the organisation.

Our strategic priorities are periodically reviewed by management and the Board and are adjusted to reflect our view of the current and future external environment and our organisational goals.

Optimise: Progressing

major transformation efforts

Major transformation efforts continue to support efficiencies within our cost base to enhance competitiveness, with delivery

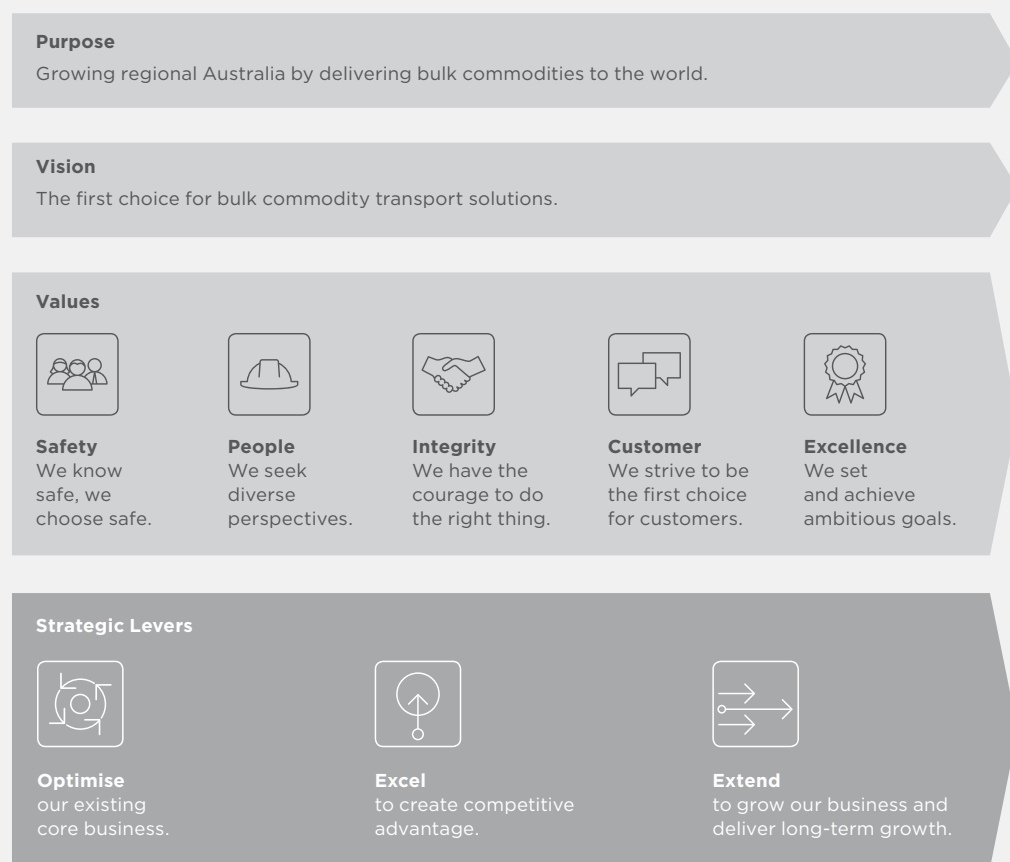
of significant benefits across fleet safety and maintenance, network scheduling and corporate areas of the business.

TrainGuard supervisory braking control has now been deployed on 18 consists in the Blackwater corridor with Driver-Only Operations implemented. TrainGuard technology will provide a step-change in safety and productivity outcomes for our Coal business through reduction of Signals Passed at Danger (SPADs) events and less schedule disruption.

Above Rail Asset Management (ARAM) and Project Precision (renamed Disciplined Train Operations) have both transitioned to Business as Usual (BAU) and continue to deliver significant value.

As multi-year transformation programs, ARAM is improving maintenance strategies, planning and execution, and driving improved asset availability and reliability, while Disciplined Train Operations is releasing capacity and improving asset productivity in CQCN to deliver time back to the schedule and to enable deferral of fleet renewals.

FIGURE 4 AURIZON'S STRATEGY IN ACTION FRAMEWORK



⁴ ESG-related aspirations and targets described in this document are discussed in detail in the risk section of the Directors' Report, as well as prior Aurizon Sustainability Reports and Aurizon's Climate Strategy and Action Plan, available at www.aurizon.com.au/sustainability. These documents describe the important assumptions which underpin these aspirations and targets, as well as applicable risks to their achievement (which are further described on page 27 of this document).

The success of these projects demonstrates Aurizon's ability to execute and embed critical transformational processes across our business that optimise our operations today and provide a platform for continuous improvement.

Excel: Optimising capital proactively

In FY2023, we have continued to optimise fleet value generation via fleet cascading and proactive investments to support growth and maximise enterprise value. We also continue to explore opportunities to decarbonise our fleet in support of our ambition of net-zero operational emissions by 2050⁵.

The operational and strategic flexibility provided by Aurizon's portfolio of rollingstock assets (the largest in Australia) has supported the transfer of 16 locomotives and 93 wagons conversions from Coal to Bulk since FY2021. These redeployments are supporting customer hauls and driver training across the country, capturing new volumes and driving higher capital productivity and cash flows.

We are also progressing plans to adapt fleet assets to support our net-zero journey with the announcement of our Battery Electric Locomotive (BEL) prototype project.

In this project, over the next 18 to 24 months, a conventional diesel locomotive will be stripped down, retrofitted and converted to a battery-based platform. This project will provide insight into the broader opportunities that may be available within our fleet portfolio to introduce other fuel platforms at a more efficient cost than currently available for original equipment manufacturer (OEM) alternatives. Our proactive approach to managing fleet assets ensures our resilience throughout the cycle, but also provides opportunities to proactively invest to support growth and adapt our fleet to the needs of the future while sustaining competitive advantage and return of value to shareholders over the long term.

Extend: Growing our Bulk and Containerised Freight businesses

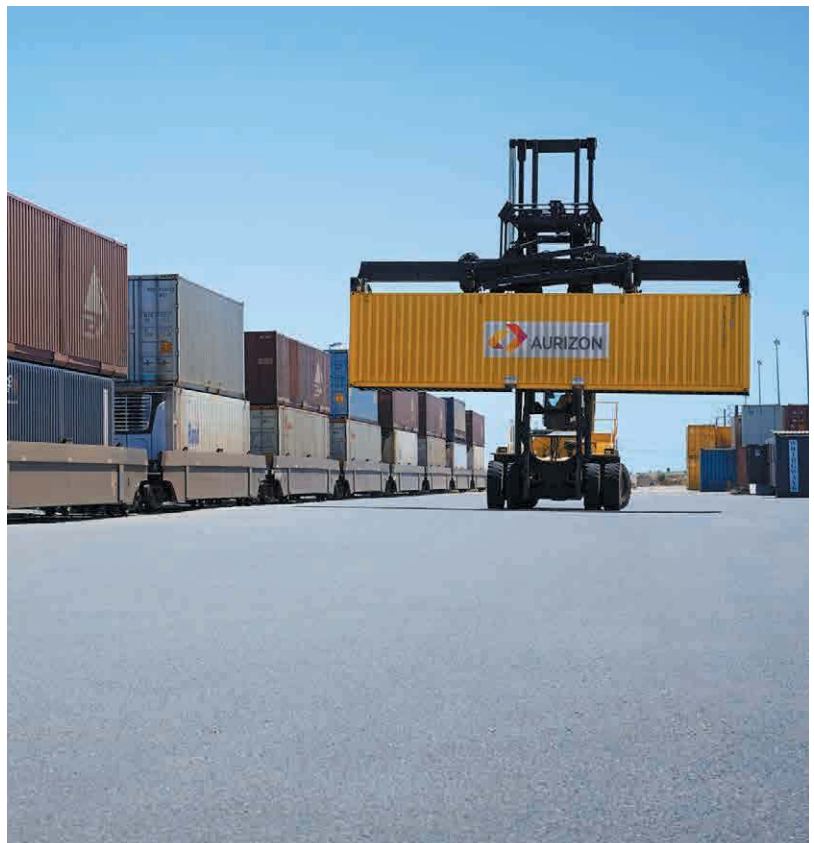
We have articulated the strategy to build on the stable cash generative platform of our existing Network and Coal businesses and to drive towards our aspiration of doubling Bulk earnings by FY2030. While our strategy remains largely the same today, at our Investor Day in July, we announced an increased Bulk aspiration and also articulated the FY2030 aspiration for the new Containerised Freight business.

Our revised Bulk aspiration is to achieve a 25% to 30% share of the estimated addressable bulk market of approximately \$1.7 billion (Earning Before Interest, Taxes, Depreciation and Amortisation (EBITDA)) in FY2030, or approximately \$400m to \$500m implied EBITDA. This compares favourably to our previously stated market share aspiration

of 20% to 25% at Investor Day in 2021⁶. It is driven by the increase to our market share following the acquisition of One Rail Australia, overall growth in key bulk markets, and visibility of growth opportunities nationally, including those in SA and the NT, regions where Aurizon previously had no footprint. In February this year, we announced the start of the Containerised Freight business, which is enhancing national supply chains. The combination of the containerised freight capability in the Central Corridor region, and the full National Interstate schedule will provide capacity of up to about 350,000 TEUs per annum. The development of National Interstate services is well underway, with capacity ramping up to support the 11-year TGE contract targeting annual volumes of about 140,000 TEUs. Furthermore, at Investor Day, we announced an additional 100,000 TEU of capacity from 2025 that includes Stage 1 of our land-bridging concept that will use regional ports (and rail, including Bulk Central track infrastructure) to create new supply chains for customers, bringing total planned containerised freight capacity to about 450,000 TEUs. Beyond this, our aspiration is to move more than 500,000 TEUs annually by FY2030⁷, with implementation of incremental capacity assessed in a staged approach in response to demand from freight owners and shippers.

As Aurizon capitalises on these opportunities, growth in Bulk and Containerised Freight could reduce thermal coal revenue exposure to 10-20% by 2030⁸.

In February this year, we announced the start of the Containerised Freight business that is enhancing national supply chains.



AURIZON INVESTOR DAY

In July 2023, we held an Investor Day in Darwin, NT, detailing our strategy to continue to deliver sustained value for investors and customers as Australia's leading integrated rail freight service provider. The Investor Day presentation, in addition to the transcript and webcast, is available on the Aurizon website.

Australia's leading integrated rail provider



- 5,130 km track infrastructure
- ~700 locomotives
- ~15,000 wagons



Network and Coal businesses are resilient, generating free cash flow



Consistently returned capital to shareholders, with \$5 billion returned since FY2016

Updated Bulk aspiration



Aspiration to achieve a 25-30% market share of an estimated \$1.7 billion addressable bulk (EBITDA) market at FY2030*



Greater market share and operational synergies unlocked from One Rail acquisition



Significant exposure to new economy commodities

Containerised Freight aspiration, including a national land-bridging solution



FY2030: >500 thousand TEU annual volume*^



Initial focus on safe and efficient services as Containerised Freight schedule ramps up



Darwin's proximity to Asia combined with Aurizon's existing assets make it a logical land-bridging opportunity

* Aurizon Investor Day (July 2023) full presentation available on Aurizon website. The presentation includes important cautionary language in respect of 'aspirational statements' in addition to market share, whereby Aurizon secures part of an available range of organic and inorganic growth. There is a risk that Aurizon does not secure the assumed part or any of the available market growth.

^ Aurizon Investor Day (July 2023) full presentation available on Aurizon website.

5 See footnote 4.

6 Aurizon Investor Day (June 2021) full presentation available on Aurizon website, including important statements about the future and scenario analysis targets.

7 Refer to Aurizon Investor Day (July 2023) slide 30, full presentation available on Aurizon website, including important information about 'aspirational statements and utilisation'.

8 Revenue is the sum of the Coal (excluding all track access), Bulk (net of track access expense) and Containerised Freight business units and excludes the Network business unit. Coal revenue allocated (metallurgical/thermal) is based on estimated volume split.

OUR EXPOSURE TO FUTURE-FACING COMMODITIES

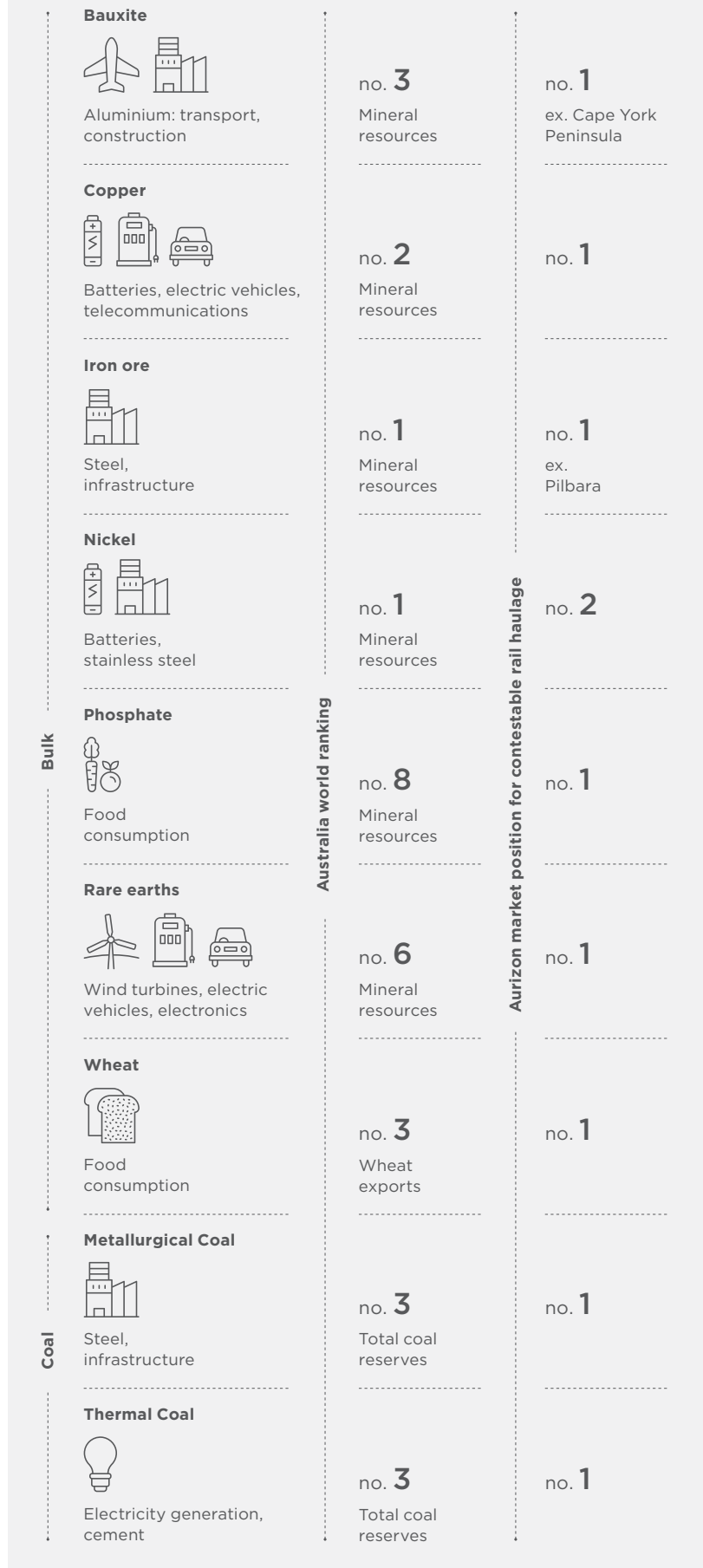
As Australia's largest freight rail provider, Aurizon has market-leading positions in key commodities essential for decarbonisation, infrastructure, urbanisation, population growth and rising standards of living (figure 5).

The growth in new economy markets is expected to support our leading position in key commodity-rich regions of Australia, with strong exposure to future-facing commodities, such as bauxite, copper, nickel, phosphate, rare earths, and grain.

Source:

Geoscience Australia, Australia's *Identified Mineral Resources 2022*, except for Coal (*BP Statistical Review of World Energy Report*, 2021 and 2022) and Grain (Australian Government – Department of Agriculture, Fisheries and Forestry: *Snapshot – Australian wheat exports January 2023*, International Grain Council 2020/21). Aurizon Operation's Australian market position for contestable rail haulage is based on Aurizon estimates.

FIGURE 5 EXPOSURE TO NEW ECONOMY COMMODITIES⁹



How Aurizon creates value

We create tangible and sustainable value for our primary stakeholders, including our employees, customers, communities, and investors (figure 6).

FIGURE 6 HOW AURIZON CREATES VALUE

Stakeholder	Description	Value created in FY2023
Employees	We provide stable employment and rewarding career development in a safe and high-performing work environment, as well as the opportunity to contribute to the economic prosperity of Australia.	— Over 5,700 people employed. — \$977 million in wages and benefits paid.
Customers	We deploy our significant asset base, capital investments and industry-leading expertise to provide reliable, safe and efficient bulk transport solutions for our customers via rail, which generally achieves better sustainability outcomes than road haulage.	— 253 million tonnes of bulk commodities and about 100,000 TEU transported at an estimated value of over \$80 billion for our customers¹⁰.
Community	Our key role in bulk supply chains enables economic prosperity and growth for all Australians. We help sustain regional communities by providing employment and economic benefits in areas where we operate.	— More than 86% of our employees live in regional areas. — \$294 million in taxes collected and paid¹¹. — \$1.7 billion spent with suppliers.
Investors	Our integrated business model provides a defensive stream of earnings from our regulated track infrastructure (the CQCN), while our rail haulage business benefits from stability in Australia's metallurgical and thermal coal exports and growth in haulage volumes of other new economy bulk commodities.	— Aurizon's capital allocation framework is designed to maximise shareholder value and has returned \$5 billion to shareholders since FY2016.

We provide employment and economic benefits in areas where we operate.



⁹ Mineral resources and production ranking (minerals): Geoscience Australia, *Australia's Identified Mineral Resources 2022*, except for Coal (BP Statistical Review of World Energy Report (2021 and 2022) and Grain (Australian Government – Department of Agriculture, Fisheries and Forestry: *Snapshot – Australian wheat exports January 2023*, International Grain Council 2020/21).

¹⁰ Estimated value of customers' product, as calculated by Aurizon.

¹¹ Excludes PAYG income taxes included in wages and benefits paid.

How we operate

Our business model supports sustainable business practices and enables us to operate efficiently and effectively.

We have worked hard to build a stronger, more sustainable business in recent years, and are committed to being open and transparent on the environmental, social and governance (ESG) aspects of our business. We aim to continuously improve and ultimately create value for the benefit of our employees, customers, communities and investors.



Our approach to sustainability

Our approach to reporting

We keep stakeholders informed of our corporate governance and financial performance via announcements to the Australian Securities Exchange (ASX) and our website. Investors can access copies of announcements to the ASX, notices of meetings, annual reports, policies, investor presentations, webcasts, and transcripts of those presentations on our website. In addition, we take a direct approach to reporting ESG disclosures to our stakeholders with the publication of our annual Sustainability Report.

We recognise that our climate change disclosures are one of the key interests to stakeholders. Since 2017, we have aligned our climate-related disclosures to the Task Force on Climate-related Financial Disclosures (TCFD), as recommended by the Financial Stability Board. This framework enables consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders. Our response to climate-related risks is outlined in the Governance and risk chapter of this report.

In FY2021, we published our first Climate Strategy and Action Plan¹² (CSAP). The strategy builds on our existing work in reducing our carbon footprint, as detailed in our Sustainability Report each year since 2014. We recognise that we all have a responsibility to act on climate change – government, business, and the general community – so we can achieve an effective transition to a low-carbon future. As Australia's largest integrated rail freight business, we can have a significant and positive influence on the decarbonisation of Australian rail freight supply chains, as supported by our target of net-zero operational emissions by 2050¹³. Progress on our emissions reduction efforts is outlined in our Climate change chapter. The greenhouse gas (GHG) emissions data (Scope 1, 2 and 3) provided in the chapter has also been independently assured, and a statement of limited assurance is included in this report.

A lower carbon future must go together with business sustainability, customer service and economic development. We are a crucial part of the supply chains for Australia's agricultural, industrial and resource sectors.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, which includes the Sustainable Development Goals (SDGs). The 17 goals and related targets act to address significant ESG issues across the globe. We began mapping our operations against the SDGs in our 2018 Sustainability Report. Acknowledging that our business contributes to some SDGs more than others, we continue to focus on the five goals that are most aligned with our business, our values, and our operational environment.

GOAL 3

Good health and well-being



We continue to develop and adopt safe practices, enabling us to build a resilient operation, an adaptive workforce, and agile systems of work to deliver safer outcomes. We will continue to make sure we are well placed to work with our people, our customers, and the communities in which we operate, providing safe and reliable rail operations now and into the future.

At Aurizon, 'we know safe, we choose safe' – whether this applies to physical or psychological aspects of work. Everyone working with or for Aurizon should feel and be safe at work.

We continue to work with our people on promoting mental wellbeing at work. We have been delivering on our Mental Wellbeing Strategy for several years – focusing on support mechanisms and promoting leadership awareness and mental health peer support. Further examples of our continued efforts include:

- providing leadership tools and training in our Just and Fair Culture training packages
- embedding Aurizon's Values and Framework
- developing employee engagement tools – such as the People Insights Survey
- developing our Employee Value Proposition
- improving how safety events are investigated – focusing on broader learning and sharing – which will continue to be enhanced with a new Event Learning Framework
- reviewing and implementing rosters that improve work-life balance
- establishing Inclusion and Diversity Reference Groups.

The current focus of our strategy is understanding the hazards at work that can affect mental health. This is in line with our continued focus on protecting and supporting the mental wellness of our workforce, as well as using the Model Code of Practice as issued by Safe Work Australia.

GOAL 5

Gender equality



We continue to increase the diversity of our workforce, recognising diversity is a lever for better business performance and for growing our business sustainably. We continue to drive change across our business with our Gender Balance Action Plan and through numerous initiatives. In FY2023, we have made strong progress in delivering on these initiatives. Two key highlights are:

- developing the remuneration standard to support greater awareness and transparency of remuneration processes
- increasing representation of women in senior roles with the appointment of two females into Group Executive positions through our internal succession process.

Aurizon continues to reduce our gender pay gap, with the base pay gap reducing from 4.12% to 1.71% from 2022 to 2023. Over the same reporting period, the total remuneration gap has reduced from 8.66% to 6.54%. Our current female representation is 21.3%, which falls short of this year's target of 24%. This can be attributed to the shift in workforce composition due to acquisition of our Aurizon Bulk Central business, which has a female representation of 4.5%. We are confident we will progress and embed our gender balance initiatives in the newer parts of our business over the coming years.

¹² Aurizon's Climate Strategy and Action Plan, released in October 2020, is available on our website. See footnote 4.

¹³ See footnote 4.

GOAL 8

Decent work and economic growth



With the acquisition of One Rail Australia, our operational footprint now spans all mainland Australian states and the NT. Most of our staff live and work in regional centres across QLD, NSW and WA. Strong and economically stable communities are the backbone of a healthy regional Australia, and we are committed to continuing to develop strong local relationships with businesses and suppliers across our regional footprint.

In FY2023, we have spent approximately \$1.7 billion with suppliers from across our operations. This figure, however, does not consider the further economic benefits of our workforce living and working in regional communities.

GOAL 9

Industry, innovation and infrastructure



As a capital-intensive business, we aim to ensure our assets and infrastructure are high quality, reliable, sustainable, and resilient. Our CSAP is underpinned by a range of targeted initiatives and investments to build supply chain resilience, decarbonise our operations, and contribute to a low-carbon freight transport sector in Australia. Our Fleet Decarbonisation team is making significant progress in establishing forums for collaboration with key peers, manufacturers, and research organisations focused on developing, trialling, and implementing low-carbon technologies for Australia's heavy haul freight sector.

We see collaboration and partnerships as the key to achieving step-change emissions reductions through technology investment and innovative energy pathways. In May 2023, Aurizon unveiled a flagship decarbonisation initiative under our CSAP – a Battery Electric Locomotive capable of zero emissions. In partnership with Progress Rail, one of our existing 4000-Class diesel locomotives will undergo a battery conversion, potentially paving the way for the transformation of our business and supply chains across the country. We are committed to investing in the ongoing development of modern freight locomotives using renewable energy. This exciting project has the potential to unlock major benefits for Aurizon, environmentally and commercially. In addition, it has the potential to deliver large benefits for the community – cutting the nation's carbon footprint, reducing road congestion, and improving safety.

GOAL 13

Climate action



As Australia's largest integrated rail freight business, we recognise our role and responsibility in helping to reduce global GHG emissions. We accept the scientific consensus on climate change and support the objective of finding a pathway to limit global warming to less than 2°C, aligned to the Paris Agreement. We also acknowledge the Intergovernmental Panel on Climate Change's (IPCC) Special Report on the impacts of global warming of 1.5°C above pre-industrial levels.

Supporting this goal, we have also set an emissions intensity reduction target of 10% by 2030¹⁴, and will invest \$50 million over 10 years through our Future Fleet Fund, targeting low-carbon technologies across our operational fleet.

Aurizon has developed a Future Fleet Strategy, comprising three proposed modular end-state solutions capable of providing low- or zero-emission solutions for our customers across a range of our service routes.

Material priorities and relevant stakeholders

As part of our BAU processes, we engage directly with our key stakeholders (figure 7). Our approach to stakeholder engagement involves formal and informal mechanisms that are tailored to our audience and the engagement outcomes being sought. Understanding our material impacts is necessary to develop our strategy and to operate sustainably. Addressing these impacts is also key in continuing to create sustainable value for our stakeholders. We strive to ensure that our Sustainability Report reflects significant economic, environmental and social priorities that may influence strategic decision-making and business performance. As such, we continuously assess the material issues that affect our business, our stakeholders, and our operating environment. Report content has been informed by our material priorities, as outlined in table 1.

FIGURE 7 KEY STAKEHOLDERS

Communities
Customers
Employees
Financiers and insurers
Governments
Industry analysts
Industry groups
Investors
Joint venture partners
Non-government organisations
Rail network providers
Regulators
Suppliers
Traditional owners and custodians
Unions

We engage directly with our key stakeholders through formal and informal mechanisms.



14 From a 2021 baseline on a basis of tonnes of carbon dioxide per net tonne kilometre. See footnote 4.

TABLE 1 MATERIAL PRIORITIES

Material Priority	Description	Chapter
Business model	How the structure of our business supports sustainable business practices and enables us to operate efficiently and effectively.	What we do
	How we continuously improve through technology advancements, where possible, to reduce resource use, increase productivity, and ultimately create value for the benefit of our employees, customers, communities, and investors.	How we operate
Customers	How we ensure that we are the first choice for our customers' bulk commodity transport solutions by delivering innovative, efficient, and reliable services to help our customers compete in global commodity markets. How we aim to maintain collaborative engagement with our customers to provide competitive solutions.	How we operate
Regulation and policy	How we continue to manage our operations and deliver value through regulatory processes, and advocate for policy improvements in areas such as energy and emissions policies, and rail versus road access pricing.	How we operate Governance and risk
Business integrity and transparency	How we operate with integrity and conduct business ethically through our governance structure and Code of Conduct. How we promote transparency and sustainable procurement practices with our direct suppliers across our supply chain.	Governance and risk
	How we remain transparent in our interactions with internal and external stakeholders.	How we operate
Sustainable governance and risk management	How our governance structure enables the Board to provide oversight and strategic direction with a focus on sustainability and consideration of climate-related risk. How we manage risk within our strategic framework, including identification and mitigation of contemporary and emerging risks, and low-likelihood, high-impact risks.	Governance and risk
Managing climate change impacts	How we manage the climate-related risks to our business in alignment with the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations.	Governance and risk
	How we plan to decarbonise our operations in line with our target of net-zero operational emissions by 2050, through supporting commitments and actions.	Climate change
Safety, health, and wellbeing	How we enable a safe, healthy, and mentally well workplace for our people through our goal of protecting ourselves, each other, and the communities in which we operate – be it through injury prevention, learning from events, promoting mental health, or enabling public safety.	Safety and health
Portfolio resilience and growth opportunities	How we continually monitor and evaluate the demand for and supply of Australian commodities and key market drivers to test the resilience of our business under divergent and plausible long-term scenarios, which in turn are used to inform strategic planning.	What we haul
Environmental management	How we effectively manage our environmental performance by maintaining air quality, avoiding or offsetting impacts on native biodiversity, and minimising noise, waste to landfill, and water use through our operations.	Environment
Employee engagement	How we promote a diverse and inclusive workforce, strengthen organisational capability and talent acquisition and retention, and career mentoring, and invest in knowledge transfer from longstanding employees.	People
Sustaining communities	How we focus on growing regional Australia through our economic contributions and local procurement, and our role in long-term community investment. How we manage our impacts on the communities in which we operate through prioritising community employment opportunities and transparent and collaborative community engagement.	Community

We engage directly with policy development processes that are relevant to our businesses and the industries in which we operate.

Regulation and policy

Engagement on infrastructure and transport policy priorities

The policies and regulations of governments and regulatory bodies have significant impacts on the current and future development, operation and efficiency of transport supply chains. We engage directly with policy development processes that are relevant to our businesses and the industries in which we operate. We also participate in the policy and regulatory work of several industry associations (as outlined in our Governance and risk chapter). During FY2023, Aurizon's Managing Director and CEO, Andrew Harding, continued as the Chair of the Freight on Rail Group (FORG), which represents rail freight operators and infrastructure providers. As part of its advocacy, FORG is engaging with governments and regulators on the benefits of rail, such as:

- **Environment:** rail freight produces 95% less carbon pollution than road freight per tonne kilometre¹⁵.
- **Safety:** rail transport is a far safer mode of transport than road; the freight volume carried by one freight train is equivalent to the volume carried by 150 semi-trailer trucks¹⁶. Over the course of a year, the freight task carried by one train removes the need for thousands of truck journeys on our roads, thereby reducing congestion and enhancing safety outcomes.
- **Productivity:** significant economic and productivity gains are achievable where there are large volumes of freight and/or where the freight is carried over longer distances.



Through direct engagement with federal and state governments, FORG proposed and advocated for policy changes to improve the productivity and utilisation of rail-based supply chains in the following areas.

Decarbonisation

As noted by the Climate Change Authority¹⁷, rail transport performs about half of Australia's total freight transport task, yet rail is responsible for only 4% of transport emissions because it is a far more energy-efficient form of transport than road. Road freight emits up to 16 times more GHG emissions than rail per net tonne kilometre¹⁸. There is an opportunity to deliver emissions reduction benefits in the transport sector by shifting freight from road to rail. Without adequate recognition of the key contribution that rail freight can make to transport sector decarbonisation, the opportunity for rail to contribute to overall transport sector emissions reduction could be lost. Key policy reforms announced over the last 12 months have highlighted the challenges for the rail industry.

Safeguard Mechanism reforms

Aurizon is one of about 145 large enterprises in Australia covered by the Australian Government's Safeguard Mechanism policy. Recent reforms to Safeguard Mechanism require covered entities to reduce their emissions intensity by 4.9% each year, commencing in 2023-24.

Currently, 65% of rail freight (which generates 2.5 million tonnes of emissions) is captured by the Safeguard Mechanism policy, but only 2% of road freight (which generates 36 million tonnes of emissions) comes under the policy. Unless adjustments are made to the Safeguard Mechanism policy to recognise the decarbonisation benefits of moving from road to rail freight, together with policy changes aimed at addressing the regulatory imbalance between rail and road, it is likely that this key emissions reduction policy will increase the cost of transporting freight by rail, but not increase the cost of transporting freight by road. This will result in freight shifting from rail to road, which would contribute to higher emissions, contrary to the objective of the policy. In addition, there is likely to be a negative impact on the cost-competitiveness of export supply chains that rely on rail transportation.

Monitoring the likely negative impacts from the implementation of the Safeguard Mechanism in 2023-24 will continue to be a focus of engagement between Aurizon and other FORG members and the government over the short term.

¹⁵ Deloitte Access Economics 2017, *Value of Rail: The Contribution of Rail in Australia*.

¹⁶ NSW Government: *Consultation Paper: Clean Air for NSW*, 2016.

¹⁷ Climate Change Authority (CCA 2020) *Prospering in a low-emissions world: An updated climate policy toolkit for Australia*.

¹⁸ Deloitte Access Economics for the Australasian Railway Association, *Value of Rail 2020*, November 2020.

Funding programs for the development and commercialisation of technology

Government funding and support programs will make an important contribution to facilitating decarbonisation. Key issues relating to the role of funding programs include the following:

- freight rail uses long-lived assets, including locomotives, which typically have an operational lifespan of 25 to 30 years
- new technologies being developed that substantially reduce emissions, or involve zero emissions, involve high upfront costs, and most new technologies are not expected to be commercially available until after 2030.

Before 2023, several transport decarbonisation funding and support programs were either developed specifically for road transport or have a major road transport focus. Recognising the issues raised by the rail freight industry, the Australian Government announced in May 2023 the creation of an Industrial Transformation funding stream utilising \$400 million from the Powering the Regions Fund, which will be made available for industries, including rail.

FORG has recommended to the government that a similar approach to recognising and providing the opportunity for rail to access and use support for decarbonisation should be provided under other existing funding programs. As well as facilitating emissions reduction benefits available from the use of rail, this approach could also contribute to developing emissions reduction technologies and approaches that apply across different transport modes and to multi-modal supply chains.

Ongoing priorities for the rail freight industry regarding decarbonisation policy include:

- further consideration of the detailed implementation of the Safeguard Mechanism to address the expected negative impacts on rail freight
- focused engagement on mode shift and the development of the following initiative:
 - the establishment and introduction of a mode shift scheme that enables rail freight operators to earn Australian Carbon Credit Units (ACCUs) for freight that shifts from road to rail; the scheme is to be informed by and similar to mode-shift incentives developed in other countries
- that government funding and support schemes recognise the benefits of freight customers using rail, and provide equitable access for the rail freight industry.

Interoperability of rail systems

Over the last 18 months, the rail freight industry has worked with governments to identify priorities for improving the productivity of rail freight operations as well as maintaining the core focus on safety. Restrictions and additional costs associated with the interoperability of rail freight operations across different networks are a major impediment to productivity of rail-based supply chains. A lack of interoperability reduces the ability of rail freight operators to respond to the requirements of freight customers and to develop and deliver innovative and timely supply chain solutions when market opportunities become available.

The most important impediments to train operations across different networks include:

- differences in requirements between different rail networks for train operations
- differences in qualification and accreditation requirements for rail employees, particularly train crew (recognising that some network-specific training and accreditation is necessary for train crew)
- existing differences and potential emerging differences in technology relating to train control, signalling and communications for train operations
- significant and, in some cases, excessive delays in obtaining approvals or accreditation for rollingstock to be used across different networks.

Following consultation with rail freight operators during 2022, federal, state and territory governments decided that improving the interoperability of rail freight would be included as one of the key reform priorities to be overseen by National Cabinet, with detailed consideration by Infrastructure and Transport Ministers.

Aurizon has recommended to governments that actions to deliver improvements should be informed by the practical requirements for rail freight operators to deliver services that offer higher productivity, and that are safe and integrated across rail networks managed by different rail infrastructure managers.

Government funding and support programs will make an important contribution to facilitating decarbonisation.



In relation to priority areas for reform, Aurizon has worked with FORG to advocate for the following recommendations:

- improvements relating to qualifications and accreditation for train crew and other skilled roles in rail should reduce the burden on qualified personnel, by improving mutual recognition of accreditation where that is reasonably possible and allow greater mobility for skilled people across different rail networks and regions, and across different roles
- streamlining rollingstock approval regimes should include a specific focus on reducing timeframes for approval and accreditation processes
- new rail technology systems, including train control, signalling and communications systems, should be developed to allow one in-cab unit or screen in a locomotive, enabling the train crew to use the one unit and system when operating across different rail networks. Interoperable technology solutions that enable the use of one in-cab unit should be cost-effective for freight operators.

Governments have agreed to the development and implementation of performance-based standards as one of the ways to foster improvement. The new standards will focus on digital train technology with the objective of having a single on-board interface for drivers and crew, and the streamlining of rollingstock approvals. FORG will be contributing to the development of the performance-based standards and to additional actions to remove or address the main barriers to interoperability.

Aurizon will continue working closely with others in industry to advocate that governments level the playing field for rail to enable rail freight to increase the volumes of freight carried on key regional corridors, and to realise the benefits that rail freight offers to customers and the communities in which we operate.

Regional policy

Aurizon is a founding member of Regional Australia Council 2031 (RAC2031) with other leading Australian companies to give a greater voice and support to the future development of regional Australia. RAC2031 is an initiative of the Regional Australia Institute. More than 86% of our employees are based in regional and remote areas.

The Regional Australia Institute is the nation's first and only independent regional economic think tank specialised in developing and communicating the knowledge, policy and practical solutions required to lift the prosperity of people in regions and Australia overall.

An important benefit of our involvement in RAC2031 is the access to and insights provided from evidence-based research. This helps member companies like us, as well as policy makers and the general community, better understand the drivers of regionalisation across Australia.

As a member of RAC2031, we are working to inform policy decisions by governments to contribute to regionalisation, focusing on helping employees and their families to be able to have the services and community infrastructure they need when living and working in regional Australia. This is an important aspect of our vision to contribute to the further development and growth of regional communities.

The research by the Regional Australia Institute will inform the policies of federal and state governments as well as future decisions of our Company.

Governance and risk

We see risk management as a value-adding process for our business to sustain and enhance performance for shareholders, customers, employees, and the broader community.

This is achieved through establishing the culture, processes and structures to realise potential opportunities while managing adverse effects (figure 8). We consider a wide range of social, environmental and economic risks within our strategic planning by applying high-quality, integrated risk assessments to support informed decision-making.



Effective governance for sustainability

We believe corporate governance is a critical pillar on which our business objectives and, in turn, shareholder value must be built. The Board has adopted a suite of charters and key corporate governance documents that articulate the policies and procedures our business follows in pursuing our objectives.

Board skills and experience

Our Board is structured to include a range of skills that enable the effective governance of our business. We carefully consider the character, experience, education and skill set as well as interests and associations of potential candidates for appointment to the Board, and we conduct appropriate checks on the suitability of candidates before their appointment. Our Board members possess a range of skills and experience across areas such as strategy, transactions, technology, sustainability, industry, government, and community relations and governance (see the Aurizon FY2023 Annual Report for more detail). In FY2023, we announced the appointment of two new Directors and the renewal of existing Board membership.

FIGURE 8 AURIZON'S COMMITTEE STRUCTURE¹⁹



Committees and meetings

Our Board provides oversight and strategic direction to sustainability and has ultimate responsibility for our Company's consideration of climate-related risk. It is guided by our Audit, Governance and Risk Management Committee (AGRMC) and Safety, Health and Environment Committee (SHEC) as part of our risk framework and broader corporate strategy and planning. The AGRMC includes several members of the Board, including the Chairman, and is responsible for reviewing our governance policies, framework and compliance. The SHEC is responsible for reviewing and making recommendations to the Board on matters relating to safety, health, and environmental performance and policies.

The Board understands that climate change is one of the key interests for stakeholders. Following the launch of the CSAP, the cross-functional CSAP Committee has continued to guide the implementation of the CSAP and to align initiatives under the three key pillars: manage risk and build resilience; deliver decarbonisation; and create carbon abatement opportunities. A range of sustainability-related topics, including climate change, are discussed frequently at Board meetings. During FY2023, the Board:

- provided guidance and approval of the Sustainability Report
- oversaw progress and implementation of the CSAP
- reviewed a range of enterprise risks, including environment- and climate-related risks
- was directly engaged in reviewing the scenarios for consideration under our Strategy in Uncertainty framework, as well as developing plans and initiatives to position the organisation to mitigate risks and take advantage of opportunities. This strategic process is repeated at least annually to ensure that our strategic priorities are continually updated so we can proactively respond to emerging market dynamics and opportunities.

Embedding sustainability into decision making

The AGRMC Charter acknowledges the need for the Board and, in turn, management to maintain effective risk management to identify and manage risks. This includes, but is not limited to, contemporary or emerging risks, such as conduct risk, digital disruption, and cyber risks, and climate change and sustainability risks. A copy of the charter is available in the Governance section of our website. In that regard, climate change

risk is incorporated into our Enterprise Risk Management Framework and is therefore specifically considered during investment decisions. Our Executive Committee and AGRMC regularly review and update the enterprise risk profile that applies the Enterprise Risk Management Framework to identify and rate enterprise-level risks for our Company. Aurizon's approach to enterprise risk management is aligned to ISO 31000 2018 Risk Management Guidelines. The internal management process governing investment decisions, the Aurizon Investment Standard, also requires that management considers climate change risk and carbon pricing on a materiality basis in decisions to recommend capital investment.

Managing sustainability performance through targets and monitoring

We continue to manage our progress as an organisation by monitoring our performance against key sustainability targets and objectives. Examples include (but are not limited to):

- a net-zero operational emissions (Scope 1 and 2) by 2050²⁰ target
- an additional emissions intensity reduction target of 10% by 2030²¹ to maintain an emphasis on using existing capabilities and assets in the near term
- two primary safety metrics to measure safety outcomes across the enterprise: Total Recordable Injury Frequency Rate (TRIFR); and the Serious Injury and Fatality Frequency Rate actual and potential (SIFR(a+p))
- gender representation on the Board
- representation of women in senior executive roles
- representation of women in the workforce
- representation of Aboriginal and Torres Strait Islander men and women in the workforce.

At the start of the performance year, the Board determines individual strategic measures for the Managing Director and CEO. These measures are based on our strategy of continuing to optimise, excel and extend the business. Relevant measures are subsequently cascaded to the Executive Committee and throughout the organisation. Aligned with the CSAP, climate change objectives are incorporated into MD and CEO and Key Management Personnel remuneration through individual deliverables in the Short-Term Incentive Award.

¹⁹ Other Aurizon Committees not shown include the Nomination and Succession Committee, and the Remuneration and People Committee. For more information about our committee structures, see the Aurizon FY2023 Annual Report.

²⁰ See footnote 4.

²¹ From a 2021 baseline of tonnes of carbon dioxide per net tonne kilometre. See footnote 4.

Government and regulatory engagement

Our Corporate Affairs Team manages a program of regular engagement with federal and state governments, federal and state Members of Parliament (MPs) (including opposition MPs), and with local governments. Corporate Affairs also supports ongoing engagement between business units and regulators. This engagement program was implemented over the last financial year; some engagement was modified to use video and/or teleconference in response to COVID-19 restrictions.

Industry association memberships

We are a member of several industry associations and participate in some government industry forums alongside other companies.

We hold these memberships for the following purposes:

- to contribute to the development and advocacy of policy and regulatory settings that promote and facilitate efficient and competitive infrastructure development, and that enable investment in new mining and resource project developments and efficient and cost-effective supply chain operations
- to enable engagement with customers and other industry stakeholders on policy and regulatory priorities
- to share updated information on emerging macroeconomic and policy and industry issues.

We regularly review our participation in industry associations and government industry forums to ensure our involvement continues to be aligned with these purposes, and is an efficient and effective use of Company time and resources.



Conduct

Our Values and Code of Conduct embody what it means to work at Aurizon. We expect our employees to be fit for work, work safely, act professionally, to be lawful, ethical and fair, and to use our systems, equipment, property and tools appropriately. Before employment, all employees are made aware of the Code and are required to complete online training modules to ensure a thorough understanding and continuous adherence.

We want to be known for how we treat each other and foster a working environment with a shared understanding of respectful behaviour, and how our people feel empowered to stand up for each other.

Our Code of Conduct has a strong link to our values of Safety, People, Integrity, Customer and Excellence. We set expectations for our employees to speak up when our values are not demonstrated. We regularly review our policies to support our operations and how we work.

Building on our Code of Conduct, Aurizon's Conflict of Interest Policy provides employees with more information about how to manage potential, perceived, or actual conflicts of interest at work. We promote our Whistleblower Hotline as a confidential avenue for employees to speak up. Our Whistleblower Policy details the protections we provide whistleblowers and our strong commitment to complying with laws and to maintaining the highest ethical standards throughout all our business conduct. Copies of our Code of Conduct, Whistleblower Policy, and Anti-Bribery and Anti-Corruption Policy can be accessed on the Governance page of our website.

Our values and Code of Conduct embody what it means to work at Aurizon.

How we manage risk

Risk management framework

We foster a risk-aware culture through a combination of leadership focus, training and the application of high-quality, integrated risk analysis and management. The consideration of risk features heavily in our thinking, from the framing of strategy through to informing decision-making at the front line. Our Enterprise Risk team, together with all leaders in the business, closely monitors the environment in which we operate to ensure key risk exposures and situational developments are well understood and proactively managed. The Aurizon FY2023 Annual Report provides detail of elevated enterprise risks.

The primary focus of all key decision-making remains the welfare of our people, continuity of services to our customers, and regard for the communities in which we operate.



Contemporary and emerging risks

Data privacy and cyber security

The rapidly evolving cyber threat landscape continues to challenge industry. Malicious attacks causing business interruptions, nationally and internationally, are increasing, and we monitor these events closely. We are uplifting our capability to manage the threat landscape, making our business more robust.

We review and update our cyber security strategy and controls regularly, with a focus on cyber risk management. This includes assessing and updating preventative controls, and building response and recovery capability. We will continue to develop cyber-smart people and processes for Aurizon to run reliable and resilient operations.

The changes to the *Security of Critical Infrastructure Act 2018* have resulted in additional obligations for our industry. We continue to work closely with state and federal governments, and our peers in the industry, to strengthen cyber risk management across the freight and logistics sector.

Supply chain risk

Building resilient supply chains and effective inventory management is critical to ensure optimal levels of supply, to minimise costs, and ensure Aurizon's operational assets are appropriately maintained to enable uninterrupted service delivery.

Several events have affected supply chain reliability, including the global pandemic, evolving international trade relations tensions, labour shortages, and constraints on raw materials. These risks are manifesting with increasing supply chain costs and lead times, and delays in obtaining goods and services.

Aurizon is approaching the risk by:

- engaging directly with suppliers
- diversifying supplier bases
- refreshing inventory management approaches
- strengthening inventory levels
- monitoring emerging supply chain risks.

We understand the importance of managing ESG considerations with our suppliers. Our Supplier Code of Conduct outlines our expectations of existing and future suppliers against five key principles: Safety; Business Integrity; Labour and Human Rights; Communities; and Environment. The code is available on our website in the supplier portal.

Managing modern slavery

Aurizon understands that modern slavery and human trafficking can occur in many forms, and recognises that we may be exposed to modern slavery risks in our supply chain that we may not be able to fully mitigate. The Company is committed to operating responsibly and has standards and processes in place to minimise and address modern slavery risks. Aurizon is also committed to providing transparency on its modern slavery risks and how they are being addressed.

More information is contained in the Modern Slavery Statement on the Aurizon website.

Managing climate change risk

The impacts of climate change are broad and systemic. Aurizon's value chain, industry and the global economy face direct and indirect impacts. Transition risks relate to a wide set of changes in policy, law, markets, technology and prices that are necessary to achieve the transition to a low-carbon economy and will affect the demand for the commodities we haul. Acute physical risks related to extreme weather events will also continue to affect our business through supply chain disruptions.

In the longer term, trends, such as average summer temperature increases and extended periods of high temperature, have the potential to disrupt the supply chain through heat stress and associated precautionary measures, such as track speed restrictions.

Since 2017, we have incorporated recommendations from the Financial Stability Board's Final Report: Recommendation of the Task Force on Climate-related Financial Disclosures (TCFD) in our annual Sustainability Report. Table 2 describes the recommended disclosures under the TCFD framework and the respective content in this report. Tables 3 and 4 summarise our response to climate-related risks and opportunities.

Our CSAP outlines our position on climate change. It is underpinned by long-term strategies and associated actions to mitigate climate risk and to take advantage of climate-related opportunities, including a target of net-zero operational emissions by 2050²².

Although our business is exposed to transition and physical risks, we are also well positioned to take advantage of climate-related opportunities.

The CSAP is built on three key pillars:

1. Manage risk and build resilience.
2. Deliver decarbonisation.
3. Create carbon abatement opportunities.

Under the 'Manage risk and build resilience' pillar, we commit to continually assess and enhance our processes for managing climate-related risk and leveraging opportunities in the way we manage our business and key assets, by:

- continuing to develop scenario analysis for use in key decision-making processes to consider transition risks over short-, medium- and long-term time horizons
- continuing to enhance capability to assess physical risk to key assets and operations
- embedding consideration of climate-related risk into risk frameworks and investment standards.

Scenario analysis is conducted under our Strategy in Uncertainty framework, which takes climate-related transition risks into consideration for key decisions, including around acquisitions and capital investments. The key drivers used in our scenario analysis are outlined in our What we haul chapter. Our management of climate-related physical risks is addressed in table 3 Response to climate-related risks.

For the second pillar of 'Deliver decarbonisation', we commit to achieving net-zero operational GHG emissions by 2050²³, to take a leading role in accelerating decarbonisation of Australia's freight sector, and contribute to decarbonising the supply chains in which we participate, by:

- establishing the \$50 million Future Fleet Fund (to be dispensed over 10 years)
- implementing our Tracking Towards Net-Zero Operational Emissions initiatives
- establishing partnerships and forums for customer and industry collaboration
- continuing advocacy for rail's significant role in the transition to a low-carbon economy.

In the third pillar, 'Create carbon abatement opportunities', we commit to increase the proportion of carbon-neutral energy into our energy mix, and investigate opportunities to invest in and/or generate carbon offsets with environmental and social co-benefits, by incorporating our Tracking Towards Net-Zero Operational Emissions initiatives and prioritising:

- cost-effective renewable energy to augment supply to our electrified rail infrastructure and real estate portfolio²⁴
- high-quality, credible, verified and co-beneficial carbon offset portfolio development.

OPERATIONAL RISKS RELATING TO OUR COMMITMENTS AND EMISSION TARGETS

Australian and international governments will continue to evolve expectations on emissions reduction, management and reporting. Aurizon has set targets for the reduction of emissions; however, with a large, complex and multi-year decarbonisation program, there are risks relating to:

- the ability to reduce those emissions as committed to the market;
- the availability of technology at scale to meet those ambitions;
- the availability and efficiency of renewable energy to power the transition;
- reliance on third parties, including the implementation of government policy, to facilitate the transition costs such as decarbonisation technologies, energy sources or ACCUs; and
- the targets, or actions taken in progressing towards those targets, not being considered sufficient to key stakeholders.

These risks and the evolution of such expectations could result in increasing operational costs to Aurizon, damage to our social licence, shareholder action or litigation or other reputational impacts.

TABLE 2 CORE ELEMENTS — TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

Core element	TCFD Recommended Disclosure	Index
Governance	Board's oversight of climate-related risks and opportunities.	Chapter: Governance and risk Effective governance for sustainability (page 22)
	Management's role in assessing and managing climate-related risks and opportunities.	
Strategy	Climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Chapter: Governance and risk Response to climate-related risks and opportunities (page 28)
	Impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	
	Resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Chapter: What we haul (page 40)
Risk Management	Organisation's processes for identifying and assessing climate-related risks.	Chapter: Governance and risk Effective governance for sustainability (page 22)
	Organisation's processes for managing climate-related risks.	Chapter: Governance and risk Response to climate-related risks and opportunities (page 28)
	How processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Chapter: Governance and risk Effective governance for sustainability (page 22)
Metrics and Targets	Metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Chapter: Governance and risk Response to climate-related risks and opportunities (page 28)
	Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	
	Targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Chapter: Climate change (page 52)

22 See footnote 4.

23 See footnote 4.

24 Potential barriers to efficient renewable energy sources may include delays in advancement and/or a lack of reliable renewable energy sources available within the market, lack of infrastructure necessary to support renewable energy sources (particularly in regional areas), and reliance on third parties (including the implementation of government policy) to facilitate the transition.

TABLE 3 RESPONSE TO CLIMATE-RELATED RISKS

Risk	Description	Risk type	Potential impact to business	Strategic planning and risk management	Metrics
Thermal coal demand	Demand for seaborne thermal coal is subject to energy policy and fuel-mix decisions driven by energy costs, energy security, and regulation of GHG emissions.	Transition: Market, Policy & Legal, and Technology Risk level: High	Approximately one quarter of Coal & Bulk revenue and around 30% of Network revenue is related to the haulage of thermal coal. Time horizon: Medium to long-term	— The nature of our contracts provides greater certainty for our future revenue streams; 79% of the Coal business portfolio has a remaining contract life of 3+ years (as at 30 June 2023). — Continue to use scenario analysis to resilience test our fleet capacity, capital investments, haulage opportunities and impairment testing. — Continue to develop Bulk and Containerised Freight haulage opportunities, including the identification (and execution) of fleet cascade opportunities from the Coal fleet to support Bulk growth. — Aurizon's aspiration to grow Bulk and Containerised Freight (as shared at the July 2023 Investor Day) may result in share of Operations' revenue derived from thermal coal to reduce to 10-20% by 2030²⁵.	— Coal demand and supply projections and scenario analysis (refer to our What we haul chapter). — Asian economic growth and climate policies. — Current and planned fleet of coal-fired generation and steel capacity in coal import nations. — Developments in hydrogen-based steelmaking projects (and other emerging lower carbon processes), including cost and infrastructure requirements. — Capital investment in Australian coal sector. — Development (and regulatory approvals) of new Australian coal mines. — Coal supply from competing nations and associated trade flows.
Metallurgical coal demand	Demand for seaborne metallurgical coal is subject to economic development, steel-intensive growth, method of steel production (including emerging lower carbon processes), import reliance, and regulation of GHG emissions.	Transition: Market, Policy & Legal, and Technology Risk level: Moderate	Approximately 30% of Coal & Bulk revenue and around 70% of Network revenue is related to the haulage of metallurgical coal. Time horizon: Long-term		
Australian coal supply	Australia's supply of metallurgical and thermal coal to seaborne export markets is subject to factors such as global competitiveness, operating coal mine production, and domestic climate policies.	Transition: Market, Policy & Legal, and Technology Risk level: Low to moderate	Over half of Australia's coal exports using our below rail Network and/or carried by our Coal business. Time horizon: Medium to long-term		
Changes in investor expectations	Investor concern over climate-related risks may result in: — An inability for our business and customers to gain licences, funding or insurance for coal mining and transport. — Increased risk of litigation/ social action against our business and customers.	Transition: Reputation and Legal Risk level: Moderate to high	A withdrawal (or reduction) of licences, funding or insurance will limit our growth opportunities. Higher cost/time requirements associated with litigation. Time horizon: Short, medium, and long-term	— Taking action, as articulated in our CSAP commitments. — Access a broad range of capital markets and diversify funding sources and/or extend tenure, where possible. — Maintain open and transparent communication with stakeholders, including climate-related disclosures. — Continue to advocate for Australian commodities.	— Composition of Aurizon revenue (by commodity group). — Environmental planning approval timeframes. — Capital investment in mining capacity. — Developments in climate-related litigation.

TABLE 3 CONTINUED RESPONSE TO CLIMATE-RELATED RISKS

Risk	Description	Risk type	Potential impact to business	Strategic planning and risk management	Metrics
Carbon emissions management and reporting	Carbon liability under GHG emissions regulation (statutory) and targets (voluntary).	Transition: Policy & Legal Risk level: Low to moderate	Safeguard baseline exceedances because of recent legislation reforms will necessitate offsetting with ACCUs. Australian and international governments continue to evolve expectations on emissions management and reporting. Evolving GHG emissions-related policy and regulation could increase operational cost. Inadequate strategic effort, commitment of resources, technological challenges, and reliance on third parties (including the implementation of government policy) to facilitate the transition could impede decarbonisation progress and increase carbon liability. Time horizon: Short, medium and long-term	— Implement CSAP targets and initiatives focused on operational decarbonisation through improved operational efficiency, renewable energy integration, and adoption of low-carbon fleet technologies. — Support accelerated development and uptake of low-carbon fleet technologies through research, collaboration and investment. — Monitor and engage with government climate policy agendas, and advocate for a positive policy outcome for rail and energy-efficient freight services. — Develop and implement ACCUs purchasing strategy to ensure Aurizon has sufficient supply to meet its carbon liability while decarbonisation technologies are developed, scaled and deployed.	— Fleet/operational energy and emissions intensity. — Renewable energy penetration (grid, contracted and behind the meter). — Scope 1, 2 and 3 emissions. — Electricity consumption by source. — Procured goods and services. — Waste generation and disposal type. — GHG regulation. — Direct investment and collaboration with peers, researchers and manufacturers on acceleration of low-carbon technology development for Australian heavy-haul freight sector. — Purchase and retirement of ACCUs to meet Safeguard compliance obligations.

25 Revenue is the sum of the Coal (excluding all track access), Bulk (net of track access expense) and Containerised Freight business units, and excludes the Network business unit. Coal revenue allocated (metallurgical/thermal) is based on estimated volume split.

TABLE 3 CONTINUED RESPONSE TO CLIMATE-RELATED RISKS

Risk	Description	Risk type	Potential impact to business	Strategic planning and risk management	Metrics
Climate change resilience and adaptation	Operational disruption and damage arising from more severe extreme weather and related events, such as flooding, erosion, bushfires and annual average summer temperature increases.	Physical: Acute & Chronic Risk level: Moderate to High	May result in loss of revenue due to extreme weather events affecting mining operations/ production volumes, transport and port activities across the supply chain. May result in higher costs associated with remedial actions to ensure asset availability. Time horizon: Short, medium and long-term	— Continue to design infrastructure to recover quickly from extreme weather events, including positioning inventory such as ballast, flood rock, rail and formation material. — Implement appropriate rail network operations strategies during extreme weather events (e.g. speed restrictions) to avoid potential for weather-related incidents. — Annual seasonal planning for extreme weather events. — Localised real-time monitoring of track temperatures. — Use robust climate models to complete forward-looking assessment of climate-related factors to understand potential impacts of climate change on the capacity and availability of the CQCN and other fixed assets. — Engage policymakers regarding competitiveness of low-impact transport modes and enabling infrastructure (e.g. electrified rail) to ensure consistent treatment of transport systems within policy.	— Current/projected temperatures through our Network's remote monitoring system. — Reflection of forward-looking climate models in scenario analysis (e.g. network capacity and asset resilience).
Talent to support transition	Aurizon's ability to transition to net-zero is hindered or prevented as a result of workforce and talent challenges: — Shortage of qualified candidates/or experts in the marketplace. — Inability to attract and retain employees with the necessary skillsets. — Inadequate training available to upskill existing employees.	Transition: Policy, Technology, Reputation Risk level: High	May result in financial losses or may cause delays in meeting our climate commitments. Time horizon: Medium to long-term	— Analysis to determine required skillsets and roles. — Upskill existing staff and future candidates with the appropriate skills. — Engagement of external experts and consultants. — Explore and engage opportunities via partnership agreements.	— Direct investment and collaboration with peers, researchers and manufacturers on acceleration of low-carbon technology development for Australian heavy-haul freight sector. — Government, industry and customer funding and support for first-of-type projects.

TABLE 3 CONTINUED RESPONSE TO CLIMATE-RELATED RISKS

Risk	Description	Risk type	Potential impact to business	Strategic planning and risk management	Metrics
Decarbonisation technology	Challenges arise in decarbonising the fleet due to: — Lack of suitable equipment in market, cost to convert existing assets, supporting infrastructure and technologies requiring significant at-risk prototyping investment. — Lack of raw materials and maturity of end-to-end supply chain for critical items needed in development and manufacturing. — Dependency on an equipment manufacturing sector, constrained by availability of inputs, requiring significant funding and the scale of global demand impacting supplier participation, inflating costs or suitability of technology for development. — Unproven sustainability of innovative technologies. — Absence of regulatory support and supply of transitional solutions, such as renewable diesel, bio fuels. — Lack of available renewable energy to power the transition. — Lack of, or changes to, Government policy and customer incentive to address their Scope 3 emissions or policies relating to fuel and energy. — Reliance on third parties (including the implementation of government policy) to facilitate the transition.	Transition: Policy & Legal, and Technology Risk level: High	May result in financial losses or may cause delays in meeting our climate commitments. Time horizon: Medium to long-term	— An experienced senior subject-matter expert appointed to lead Pillar 2 – Deliver Decarbonisation of CSAP. — Future Fleet Fund – \$50m to progress and prove prototype development. — Aurizon leading and participating in Australian rail industry collaboration on Engineering and Safety Standards. — Renewable energy project initiatives. — Engagement with Australian Government and regulators about emissions mechanisms, rail production variables, accounting standards and fuel quality standards. — Customer engagement to raise awareness of decarbonisation pathways and to explain the challenges and interdependencies between the technology and the implementation timescales. — Developing partnerships with customers, manufacturers and suppliers.	— Fleet/operational energy and emissions intensity. — Renewable energy penetration (grid, contracted and behind the meter). — Direct investment and collaboration with peers, researchers and manufacturers on acceleration of low-carbon technology development for Australian heavy-haul freight sector. — Government, industry and customer funding and support for first-of-type projects.

TABLE 3 CONTINUED RESPONSE TO CLIMATE-RELATED RISKS

Risk	Description	Risk type	Potential impact to business	Strategic planning and risk management	Metrics
Efficiency and availability of renewable energy	Barriers to efficient renewable energy sources as a result of: — Delay in advancement and/or a lack of reliable renewable energy sources available within the market. — Inadequate and/or immature technology. — Lack of infrastructure necessary to support renewable energy sources, particularly in regional areas. — Government instruments and policies relating to traditional or renewable energy sources. — High cost of investment to transition to renewable energy. — Reliance on third parties (including the implementation of government policy) to facilitate the transition.	Transition: Policy & Legal and Technology Risk level: High	May result in financial losses or may cause delays in meeting our climate commitments. Time horizon: Medium to long-term	— Renewable energy project initiatives. — Engaging with suppliers and project developers to increase renewable energy mix within the procurement framework. — Engagement with government regulators and energy suppliers regarding timing and regional focus of 'greening the grid' initiatives.	— Renewable energy penetration (grid, contracted and behind the meter). — Electricity consumption. — Operational GHG emissions.

TABLE 4 RESPONSE TO CLIMATE-RELATED OPPORTUNITIES

Opportunity	Description	Opportunity type	Potential impact to business	Aurizon's approach	Metrics
Renewable energy and energy efficiency	Alongside greater renewable energy penetration across the grid, renewable energy contracting, photovoltaic (PV) installation and energy capture offer cost neutral/positive decarbonisation outcomes for electrified assets.	Energy source & markets	Faster decarbonisation of electric fleet and fixed assets. Lower energy costs. Time horizon: Medium-term	— Install solar PV arrays across our largest operational depots. — Identify opportunities to increase renewable energy mix within energy procurement frameworks by engaging with suppliers and project developers.	— Electricity consumption. — Renewable energy penetration (grid, contracted and behind the meter). — Operational GHG emissions (absolute and intensity).
Development and/or expansion of low-emissions goods, energy sources and services	Our direct investment in fleet decarbonisation technologies (low-carbon energy supply, fuels, battery and hydrogen) could result in enhanced engagement and partnerships with participants across Australia's freight transport sector.	Products & services	Increased customer value proposition and alignment of supply chain decarbonisation objectives (e.g. by offering low-carbon freight transportation services). Faster development of low-carbon technologies for our own use and potential adoption across Australia's freight transport sector. Time horizon: Medium to long-term	— Continue to implement our Tracking Towards Net-Zero Operational Emissions initiatives (supported by the establishment of a \$50m Future Fleet Fund, and the creation of forums for collaboration and partnerships to accelerate the development of low-carbon technologies).	— Operational GHG emissions (absolute and intensity). — Capital investment in low-carbon energy supply chains (e.g. green hydrogen) and storage (e.g. battery technology).
Access to new markets	There are continued growth opportunities for our Bulk business in line with higher demand for the raw materials required for low-carbon, renewable energy, and storage technologies.	Markets & resilience	The global clean energy transition will continue to drive significant consequences for mineral demand over the next two decades, incentivising the development of new mines and downstream processing in Australia, creating opportunities for our Bulk business. Time horizon: Short, medium and long-term	— Provide end-to-end bulk haulage services in key mineral corridors augmented by integrated port services.	— Bulk business growth and share of bulk market profit pool.
Carbon markets	Carbon market growth presents an opportunity to create high-quality offsets to augment direct abatement initiatives.	Markets	Less exposure to carbon costs by augmenting direct abatement initiatives with high-quality offsets to help address hard-to-abate emissions (linked to availability of low-carbon technology for the Australian rail freight sector in the near-term). Time horizon: Medium-term	— Assess opportunities to build a carbon offset portfolio by engaging with project developers to either acquire or originate high-quality carbon offsets with environmental and social co-benefits aligned to key sustainability objectives.	— Regulation of GHG emissions. — Operational GHG emissions (absolute and intensity). — ACCUs supply/demand.

Safety and health

All our efforts support our goal of protecting ourselves, each other, and the communities in which we operate.

During FY2023, we have continued to embed our Safety Strategy through priorities focused on building and implementing simple systems and processes, understanding and controlling safety hazards, and building leadership and capability with a strong in-field presence.



Driving Safety in Action – our strategic approach

Safety in Action is the core of our safety strategic approach at Aurizon. Our approach remained unchanged in FY2023.

Safety in Action (figure 9) leverages three key components that enable our people to be safe at work:

- Well-designed, planned, and resourced work
- Informed by risk
- Executed by engaged and enabled people.

Safety in Action adds value to our teams as we continue to focus on our safe systems of work, and develop and adopt safe practices, enabling us to build a resilient operation, an adaptive workforce, and agile systems of work to deliver safer outcomes.

We will continue to ensure we are well placed to work with our people, our customers, and the communities in which we operate, providing safe and reliable operations now and into the future.

A core focus for us is engagement with our teams through the continued rollout of Leading for Safety, our award-winning safety leadership program. Leading for Safety equips operational

FIGURE 9 SAFETY IN ACTION





Safety in Action is the core of our safety strategic approach at Aurizon.

leaders with skills to effectively lead Safety in Action, supported by an ongoing coaching phase that aims to challenge our leaders to apply their newly learned or enhanced skills to tackle a safety problem.

In FY2023, one of the more significant changes in the Safety Strategy was the implementation of the Critical Control Management Project. This project has provided consistency and confidence in our critical controls throughout our operations, and focuses our attention on high-consequence low-likelihood events that have the potential to cause serious injury or fatality by implementing controls that have been identified to prevent such events. Using Beakon, our Safety Reporting System, we have tech-enabled in-field assurance tools to understand the effectiveness of controls against our critical risks.

In preparation for FY2023, we had focused on the continued implementation of Safety in Action and the initiatives that will continue to enhance performance with a focus on embedding. Importantly, we know that the foundations of our strategy are resonating with our people.

Employee health and wellbeing

In FY2023, we continued to promote and embed the initiatives we rolled out in FY2022 for physical and psychological health of our employees.

Mental Wellbeing initiatives

In FY2023, we continued to prioritise our employees' mental wellbeing and embed different elements of our Mental Wellbeing Strategy.

To expand Aurizon's Peer Support Network, we ran 10 extra Mental Health First Aid training workshops and trained more than 160 Mental Health First Aiders at different locations in Aurizon. Quarterly refresher courses are offered to Peer Supporters who require support or debriefing.

We also provided training on mental health to over 40 leaders and managers to increase their understanding on mental health problems, how to identify early signs of mental illness and how to deal with them. The training will continue over the next year.

Through our Proactive Injury Intervention Program, we provided instant psychological support to our injured workers, and supported their families and colleagues through our Employee Assistance Program.

With the commencement of psychosocial risk management legislation in most states, we ran a psychosocial risk assessment pilot for our train crew in NSW and QLD. This was achieved by engaging with an external provider, using their purpose-built psychosocial risk assessment tool.

The result of this risk assessment will help reshape our Mental Wellbeing Strategy in FY2024 and beyond, and the lessons learnt will help with running the risk assessment for other parts of our business.

Proactive Injury Intervention Program

We launched the Proactive Injury Intervention Program in FY2022 to provide immediate access to physiotherapy, counselling and GP telehealth consultations for our injured workers. This includes four sessions of GP consultation, four sessions of physiotherapy, plus four sessions of counselling immediately after injury and before the workers compensation claims process starts.

We continued to provide regular training for our leaders to promote the program and encourage access to the resources available.

In FY2023, about 130 injured workers used the program for a variety of injuries. While the injuries were mainly musculoskeletal, it was encouraging to see some workers use the program for psychological injuries. Our employees can lodge a workers compensation claim at any stage while using the services; only

25% chose to do so, and 10% had to lodge a claim because they reached the cap for sessions provided. About 65% of injuries were resolved in the program, demonstrating the importance of early intervention and treatment.

Health monitoring for crystalline silica

In 2018, we started health monitoring for our Network employees exposed to crystalline silica. Since then, the program has continued with annual spirometries. The second round of five-yearly imaging was completed this year with low-dose high-resolution CT scans instead of chest X-rays.

With the commencement of new Code of Practice for Construction and Manufacturing in QLD, we have engaged an external consultant to conduct further dust monitoring across the business. Workers identified as being exposed to crystalline silica will be added to our Health Monitoring Program.

SAFETY METRICS: DEFINITIONS

Serious Injury and Fatality (SIF)

A work-related actual incident or near miss with potential to result in a fatality, a life-threatening or life-altering physical injury or illness.

Serious Injury and Fatality Frequency Rate (SIFR(a+p))

The number of SIF events (actual or potential) sustained by employees and contractors per million hours worked.

Total Recordable Injury Frequency Rate (TRIFR)

The number of instances of Lost Time Injuries, Medical Treatment Injuries, and Restricted Work Injuries sustained by employees and contractors per million hours worked.

Recording our safety performance

We record and investigate safety incidents to help us learn and improve. Our key operational safety metrics in FY2023 included:

- Serious Injury and Fatality (SIF) incidents, both actual SIF events and events with SIF potential
- Total Recordable Injury Frequency Rate (TRIFR).

Serious Injury and Fatality (SIF)

To focus on managing what matters, we identify and learn from events that have the potential for (or did cause) serious injury or fatality. These are the events we want to and do talk about - promoting a learning culture and reducing the risk of harm. During FY2023, Aurizon (excluding Bulk Central) reported 19 SIF potential events and one SIF actual event. This event occurred within our track laying operations, resulting in a hand injury to an Aurizon worker. A detailed investigation took place with several work process actions subsequently implemented.

Total Recordable Injury Frequency Rate (TRIFR)

In FY2023, our TRIFR (excluding Aurizon Bulk Central) was 8.36 injuries per million hours worked, which is an improvement of 2% on FY2022 (figure 10). Incident severity continues to reduce, with soft tissue injuries (low-severity body strains) being the most common. In FY2023, there were 87 recordable injuries, against 83 reported in FY2022. In FY2023, our Lost Time Injury Frequency Rate was 3.46, a slight improvement of 0.9% on FY2022, which was 3.49.

During FY2023, Aurizon transitioned the Bulk Central business unit into its current reporting definitions and performance measures in readiness for combined enterprise reporting from 1 July 2023. Bulk Central TRIFR for FY2023 is 10.26 compared to 4.09 in FY2022, representing a significant deterioration. The increase is substantially because of a single event in June 2023 when a heavy vehicle pulled into the path of an Aurizon train at a protected level crossing outside of Katherine, NT, resulting in injuries to all four train crew.

Supporting our focus of reducing injuries, several local-led injury prevention and management initiatives have continued to be delivered.

Moving to FY2024, we will continue to focus on embedding our enhanced injury management program holistically to improve our proactive and reactive injury management strategies.

To focus on managing what matters, we identify and learn from events that have the potential for serious injury or fatality.

FIGURE 10 TOTAL RECORDABLE INJURY FREQUENCY RATE (TRIFR)

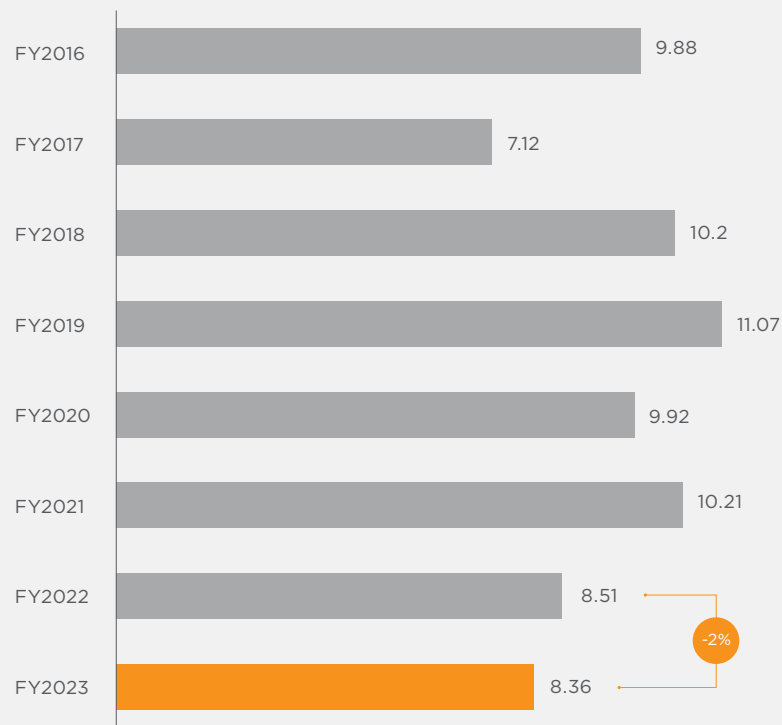
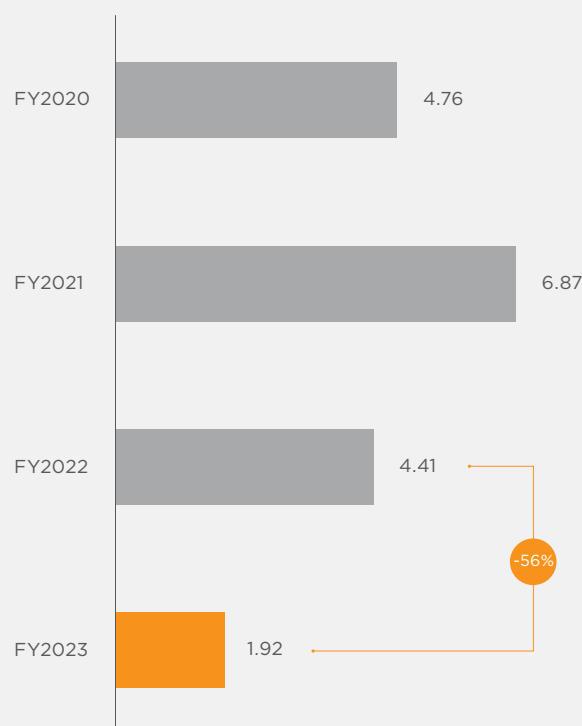


FIGURE 11 SERIOUS INJURY AND FATALITY FREQUENCY RATE (SIFR(A+P))



Serious Injury and Fatality Frequency Rate (SIFR(a+p))

SIFR(a+p) is a measure that focuses on serious injuries or fatalities or events that have the potential to cause serious injury or fatality to our people. SIFR(a+p) is an all-encompassing measure across all aspects of our operations – including rail, ports, terminals, road transport and broader infrastructure. The measure will continue to direct our efforts at preventing SIF events across all of Aurizon's operations. The FY2023 SIFR(a+p) (excluding Aurizon Bulk Central) is a total of 1.92 incidents per million hours worked (figure 11). Bulk Central SIFR(a+p) for FY2023 is 6.41 and is the first period Bulk Central has been using this measure.

The significant contributor to SIF events come from our risk of vehicle collision or rollover. In FY2023, we have focused on reducing SIF events by concentrating on the critical controls of our key activities across our operations, which included the roll out of the Critical Control Management Project. Aurizon has a strong focus on a learning culture, which is evident through the implementation of the new Event Learning Framework to focus on a culture of trust, learning and accountability.

Aurizon continues to progress several strategic initiatives, including TrainGuard, to strengthen safety performance for Aurizon Operations in Central QLD, along with improving yard safety interfaces.

CASE STUDY: LEARNING TEAMS IMPROVING WAYS OF WORK

To become a learning organisation, we recognise the need to be innovative and learn from everyday work. We use the Human & Organisational Principles in our Learning Teams' approach to help us elevate our thinking. Learning Teams are an opportunity to learn from those doing the work to help co-create opportunities.

Throughout FY2023, we have undertaken a range of learning opportunities; one focused on the Drive for Growth Project to help obtain efficiencies in the way we attract, recruit, educate and retain train drivers to support our growing operations across the business.

Another Learning Teams run in WA has focused on a collaborative effort between Arc Infrastructure and Aurizon stakeholders working together to prevent Signals Past at Danger (SPAD) events and to generate operational and safety improvements to support the movement of grain.

Keeping our communities safe

At Aurizon, our Safety goal is to protect ourselves, each other, and our communities. In FY2023, we continued to actively participate in industry-wide efforts to help reduce rail safety incidents, including through our participation in the Rail Industry Safety and Standards Board's (RISSB) development, consultation, and working groups.

We also acknowledge and respect our responsibility to improve level crossing safety for everyone in the many communities in which we operate. In FY2023, we continued to attend quarterly meetings of the Queensland Level Crossing Safety Group, which are organised and chaired by the Department of Transport and Main Roads (DTMR). Aurizon also attends the Operational Railway Crossing Protection Sub-Committee meetings facilitated by Main Roads WA, as well as the South Australian Level Crossing Advisory Committee facilitated by the Department for Infrastructure and Transport. At these meetings, various road and rail safety strategies and initiatives are considered and developed.

During FY2023, Aurizon as a member of FORG has actively participated in the Freight Train Visibility review by the Australasian Centre for Rail Innovation (ACRI). This work has included the modification of CBH locomotives to improve visibility of the fleet while also trialling several industry-leading concepts to improve visibility of rollingstock. Many of these concepts are already present on Aurizon-owned assets; however, new additions such as beacon lights were trialled on CBH locomotives as part of a co-ordinated work group chaired by the rail regulator, Office of the National Rail Safety Regulator (ONRSR).



What we haul

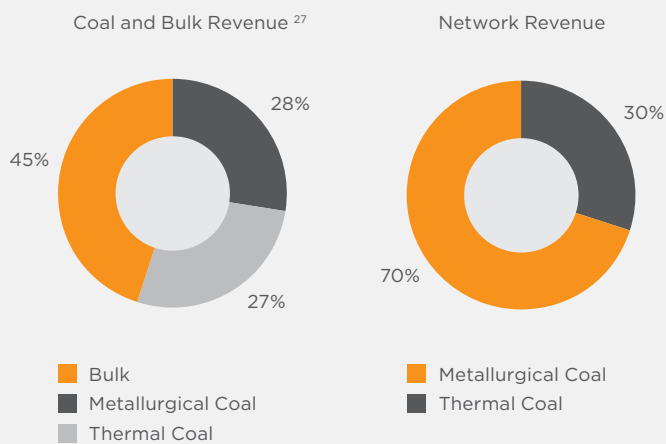
Australia holds significant mineral resources to supply current and new economy markets²⁶. Our business is linked to the demand for and supply of these commodities, almost entirely destined for export markets in Asia.

We draw upon scenario analysis to test market drivers and to evaluate capital, fleet and haulage opportunities.

Commodities we haul

About half of our earnings and assets belong to the Network business, which is our regulated infrastructure in Central QLD. The CQCN is critical infrastructure supporting around 90% of Australian metallurgical coal export volume. The other half of the group is the sum of our Coal and Bulk businesses operating across Australia. Besides metallurgical and thermal coal, we haul iron ore, alumina and bauxite, copper, nickel, cobalt and lithium, and rare earth elements, grain and fertiliser-related products, and containerised freight.

FIGURE 12 AURIZON'S REVENUE BY COMMODITY GROUP (FY2023)



Bulk

Demand for bulk commodities is driven by infrastructure development; however, growth opportunities are emerging from new economy markets and increasing global food consumption. Summarised below are key bulk commodities required and Australia's position to meet this demand.

Infrastructure development

Iron ore: Iron ore is a bulk commodity that is key to the production of steel, which is largely used in the construction, machinery and automotive sectors, but also plays a critical role in clean energy technology. China represents over two-thirds of global iron ore trade²⁸. Australia is the largest exporter of iron ore²⁹ and the lowest cost (on average) export nation on a delivered basis to China³⁰.

Aluminium and bauxite: Due to its light weight, aluminium is ideal for transport applications. Bauxite is the primary mineral for alumina and, ultimately, aluminium production. Australia is the world's largest producer³¹ of bauxite and is ranked third for bauxite resources³².

New economy markets

Copper, nickel, cobalt and lithium: The use of copper and nickel is currently supported by demand from the automotive, technology and infrastructure sectors. The greater uptake of electric vehicles (EVs) is expected to expand the use of these commodities as well as cobalt and lithium³³. The International Energy Agency (IEA) projects global sales of EVs to grow from almost seven million vehicles in 2021 to over 30 million in 2030 (Stated Policies Scenario)³⁴. Australia is well positioned to supply this emerging mineral demand, ranking in the

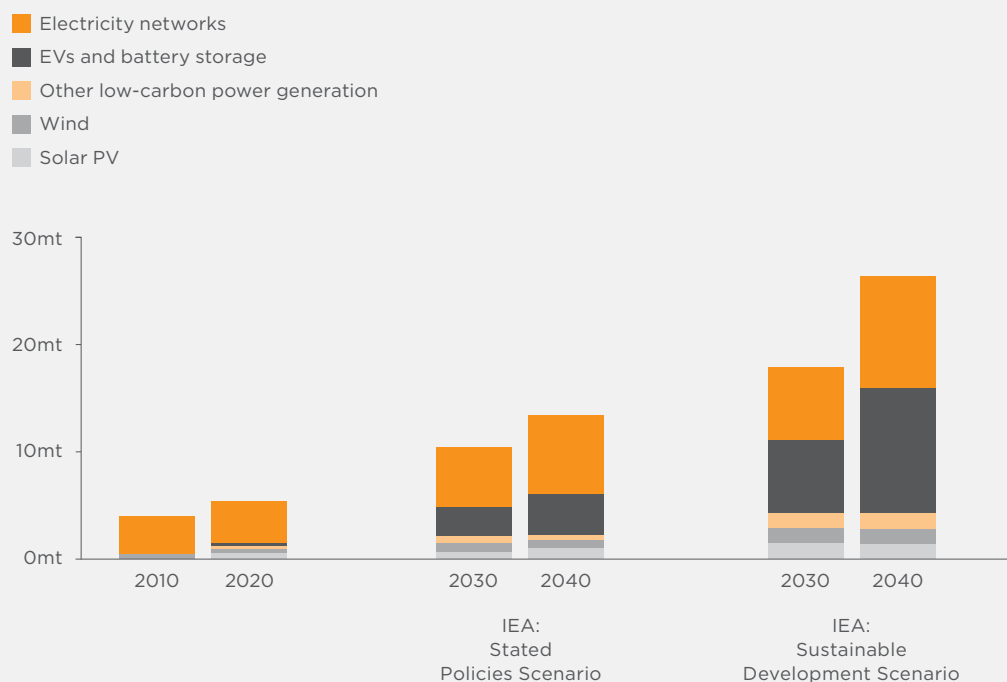
top two countries globally for the largest resources in copper, nickel, cobalt and lithium³⁵.

Rare earth elements: Rare earth elements, such as praseodymium and neodymium, are growing in importance in many domestic, medical, industrial and strategic applications. Rare earth elements can be used in many applications, including EVs, wind turbines, smartphones and computer components. Australia is ranked sixth in the world for rare earth resources, and fourth in production³⁶.

The IEA projects total mineral demand from clean energy technologies to double by 2040 in the Stated Policies Scenario, and to quadruple in the Sustainable Development Scenario from current demand (2020)³⁷. Minerals include cobalt, copper, lithium, nickel, and rare earth elements (figure 13).

The greater uptake of electric vehicles (EVs) is expected to expand the use of these commodities as well as cobalt and lithium.

FIGURE 13 TOTAL MINERAL DEMAND FROM CLEAN ENERGY TECHNOLOGIES³⁸



26 Mineral resources and production ranking (minerals): Geoscience Australia, *Australia's Identified Mineral Resources 2022*, except for Coal (BP Statistical Review of World Energy Report, (2021 and 2022)) and Grain (Australian Government – Department of Agriculture, Fisheries and Forestry: *Snapshot – Australian wheat exports January 2023*, International Grain Council 2020/21).

27 Revenue is the sum of the Coal and Bulk business units (excluding track access) and excludes the Network business unit.

28 Office of the Chief Economist, *Resources and Energy Quarterly* (March 2023).

29 Office of the Chief Economist, *Resources and Energy Quarterly* (March 2023).

30 Minerals Council of Australia, *Australian Iron Ore: Where Quality Meets Opportunity* (February 2021).

31 Geoscience Australia, *Australia's Identified Mineral Resources 2022*.

32 Geoscience Australia, *Australia's Identified Mineral Resources 2022*.

33 International Energy Agency, *The role of critical minerals in clean energy transition* (May 2021).

34 International Energy Agency, *Global Electric Vehicle Outlook 2022*.

35 Geoscience Australia, *Australia's Identified Mineral Resources 2022*.

36 Geoscience Australia, *Australia's Identified Mineral Resources 2022*.

37 International Energy Agency, *The role of critical minerals in clean energy transition* (May 2021).

38 Total mineral demand from clean energy technologies: International Energy Agency (IEA), *The role of critical minerals in clean energy transition*. Key minerals included cobalt, copper, lithium, nickel and rare earth elements.

Global food consumption

The United Nations estimates that the world population will increase from 8.0 billion in 2022 to 9.7 billion by 2050³⁹.

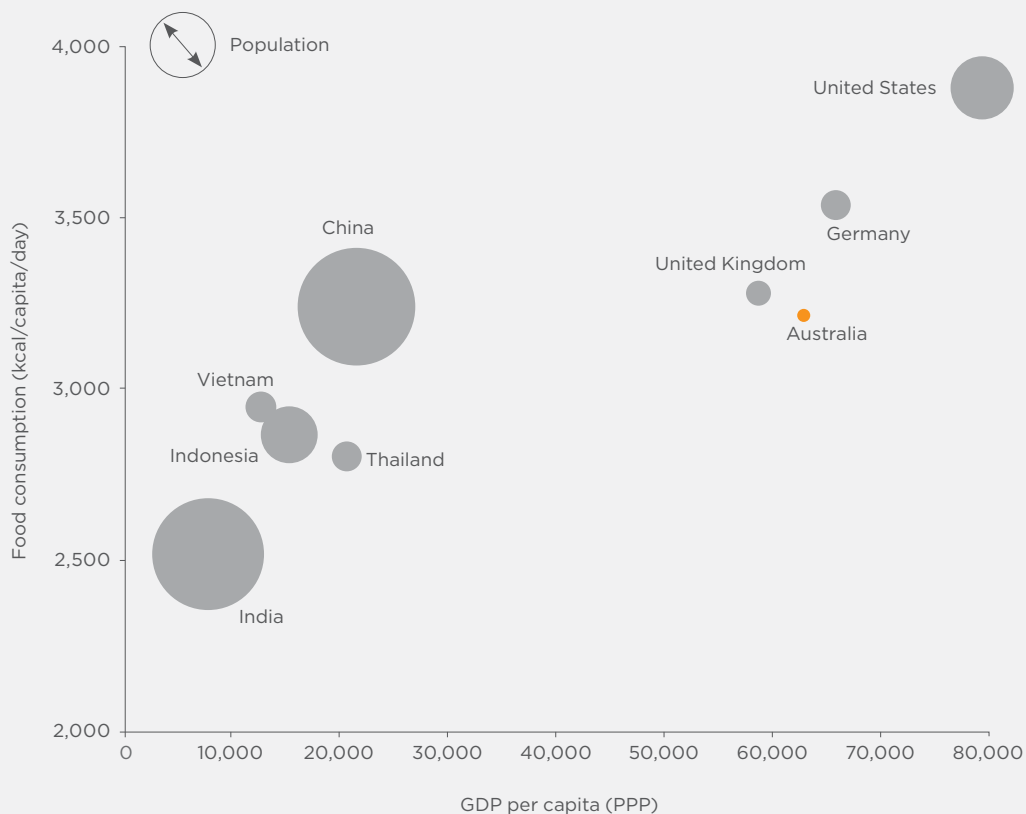
Food consumption is expected to increase because of this absolute growth in population and the impact of growing income, which leads to more calorie-intensive diets (figure 14). Australia's agriculture industry contributes to global food demand, with around 70%⁴⁰ of total agricultural produce exported. Combining domestic and exports markets, Australian farmers produce enough food to feed an estimated 80 million people⁴¹.

Crops: On average, Australia has produced 43 million tonnes of crops per annum over the past two decades; about 60% of this volume was exported⁴². WA and NSW are the two largest crop-producing states (around one-third share, respectively)⁴³. Over the same period, wheat was Australia's dominant crop – an average annual production of 24 million tonnes, of which about 65% was exported. In 2022-23, Australia was the second largest country for wheat exports behind Russia with 32 million tonnes, representing around 15% of global trade⁴⁴.

Fertilisers: In response to limited growth in arable land, global fertiliser consumption (kilogram per hectare of arable land) increased by 44% from 2000 to 2020⁴⁵, driving future opportunities for phosphate and potash projects development in Australia.

On average, Australia has produced 43 million tonnes of crops per annum over the past two decades.

FIGURE 14 FOOD CONSUMPTION (CALORIE CONSUMPTION PER CAPITA)⁴⁶

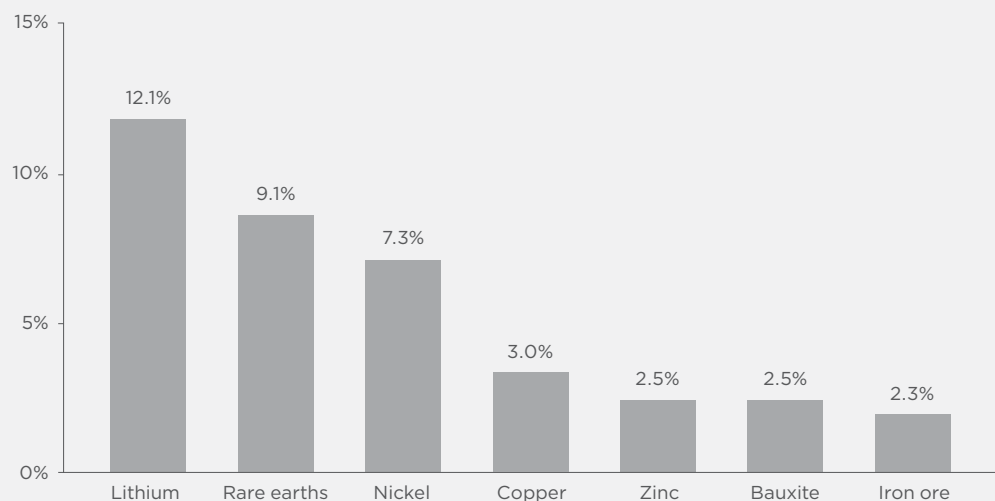




Australian commodity export volume growth

In addition to projected export volume growth of key Australian commodities (figure 15), the Australian Government (Office of Chief Economist) holds a list of 189 major projects⁴⁷ (resource commodities, excluding coal and uranium), of which 103 are at the feasibility stage and 38 are committed, which supports Australian supply growth in the longer term. Further supporting resource project development, in 2022, Australian exploration expenditure for base metals reached a record of \$989 million⁴⁸ and Australian capital expenditure for metal ores was \$21 billion, a nine-year high⁴⁹.

FIGURE 15 AUSTRALIA SUPPLY GROWTH (CAGR 2022-2028), SELECTED COMMODITIES⁵⁰



39 United Nations, Department of Economic and Social Affairs: *World Population Prospects 2022*.

40 Department of Agriculture, Fisheries and Forestry, *Delivering Ag2030 (April 2022)*.

41 Department of Agriculture, Fisheries and Forestry, *Delivering Ag2030 (April 2022)*.

42 Department of Agriculture, Water and the Environment, *Crop Report (March 2023) and Agricultural commodities (March quarter 2023)*.

43 Department of Agriculture, Water and the Environment, *Crop Report (March 2023) and Agricultural commodities (March quarter 2023)*.

44 USDA, *Grain: World Markets and Trade – May 2023*, marketing years.

45 The World Bank Data (Food and Agriculture Organization), Years: 2000 to 2020.

46 GDP (Purchasing Power Parity; current international dollars): International Monetary Fund (2022 data). Population: International Monetary Fund (2022 data). Food Supply: Food & Agriculture Organization of the United Nations (kcal/capita/day, 2020 data).

47 Office of the Chief Economist, *Resources and Energy Major Projects Report (December 2022)*.

48 Australian Bureau of Statistics. Selected base metals include copper, silver, lead, zinc, nickel and cobalt.

49 Australian Bureau of Statistics. Metal ore mining commodities include iron ore, bauxite, copper, gold, mineral sands, nickel, silver-lead-zinc, and other metal ores.

50 Office of the Chief Economist, *Resources and Energy Quarterly (March 2023), Outlook for Selected Critical Minerals: Australia 2021*.

Coal

We play a significant role in Australia's coal supply chain, with approximately over half of Australia's coal exports using our below rail Network and/or hauled by our Operations. Because about 85% of Australian coal production is exported⁵¹, global seaborne trade markets drive current (and future) demand

for Australian product. In FY2023, 89% of Australian coal exports were destined for Asia⁵².

Although metallurgical and thermal coal are similar in terms of the method of extraction and preparation, the different properties of the two coal types mean that there are distinct markets and, therefore, drivers of future demand.

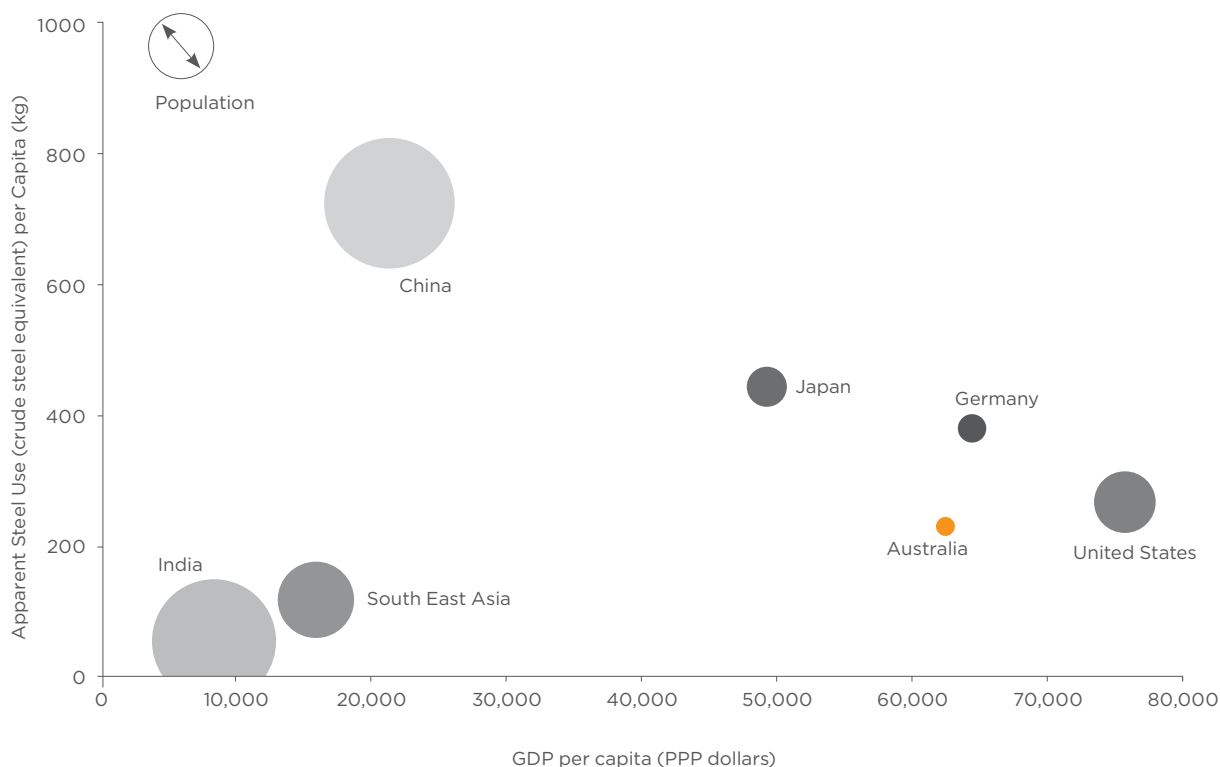
COAL TYPES

Metallurgical coal (or coking coal) is primarily used to produce steel, an integral link with economic development driving construction of urban infrastructure. Crude steel is produced primarily in blast furnace-basic oxygen furnaces (BF-BOF), which accounted for around 1.4 billion tonnes of crude steel production (72% of total global crude steel production) in 2022⁵³. In this process, metallurgical coal is used to make coking coal, which is subsequently added to the blast furnace (along with iron ore) in the production of steel. Metallurgical coal is generally subdivided into hard coking coal, semi-hard coking coal, semi-soft coking coal, and pulverised coal injection (PCI), the latter injected directly into blast furnaces. It takes about three-quarters of a tonne of metallurgical coal to produce one tonne of crude steel⁵⁴.

Steel-intensive growth in India is expected to be the largest driver of seaborne trade demand over the coming decades. Despite already being the world's second largest steel producer (behind China) with production of 125 million tonnes in 2022⁵⁵, India is considered to be at an early stage of development. In 2022, India's apparent steel use (finished steel) per capita was 81 kilograms (kg) against a global average of 222 kg⁵⁶.

Faced with a deficiency of high-quality metallurgical coal, India turns to the seaborne market (and primarily Australia) for over 90% of demand⁵⁷. India is already Australia's largest metallurgical coal export nation, with export volume of 43 million tonnes in FY2023, representing 28% of total trade⁵⁸.

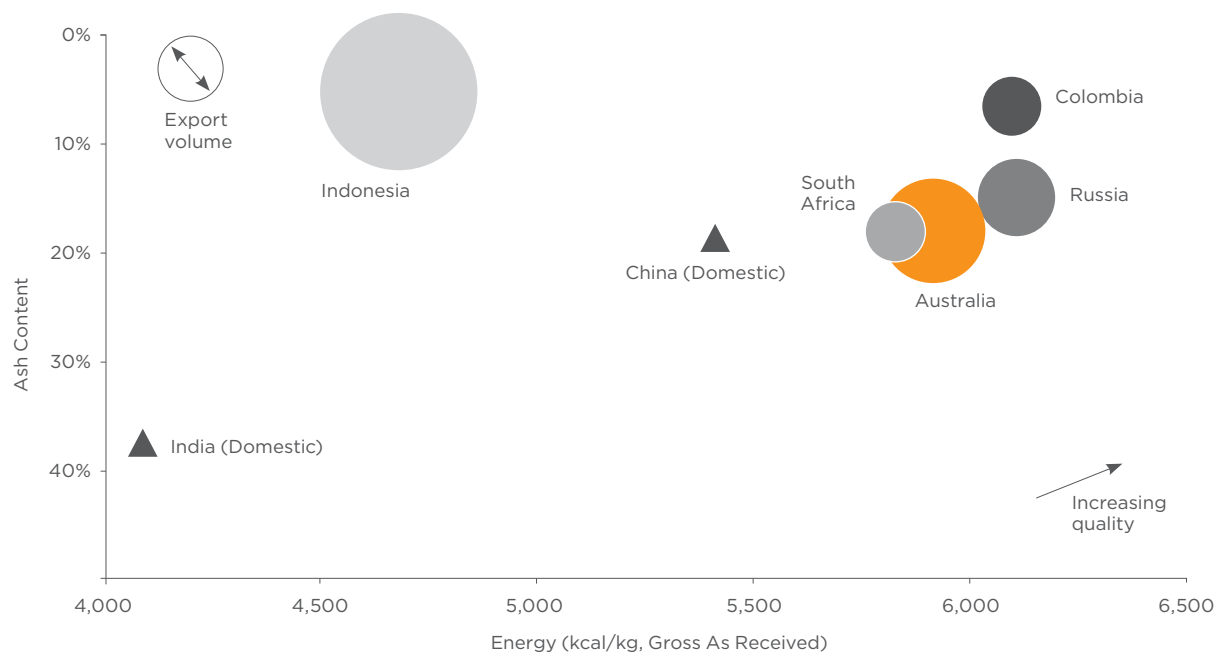
FIGURE 16 APPARENT STEEL USE (CRUDE STEEL EQUIVALENT) PER CAPITA | GDP PER CAPITA^{59,60,61}



Thermal coal (or steam coal) is primarily used as a heat source to generate energy, holding a 36% share of global generation in 2021⁶². Around 350,000 tonnes of coal equivalent are required per terawatt hour of generation⁶³. Beyond energy generation, thermal coal is also a vital raw material in chemical and construction industries. Coal is used as a source of energy in cement production, where about 200 kg of coal is needed to produce one tonne of cement⁶⁴. For thermal coal, it is expected that global consumption (2022: 6.9 billion tonnes⁶⁵) will reduce in the decades ahead⁶⁶. However, rather than global consumption, the demand for Australian coal is dependent on the seaborne trade market that is 15% of global consumption⁶⁷ and is increasingly dominated by Asian trade, which

accounts for 83% of global seaborne import volume⁶⁸. Against an expected retirement age of 40 years⁶⁹, the average age of coal-fired generation capacity in Asia is just 14 years⁷⁰. Finally, the quality of thermal coal is an important consideration. On average, Australia's export thermal coal has high energy content and relatively low ash content, which result in less coal consumption per kilowatt hour (kWh) of power station output, which reduces carbon dioxide (CO₂) emissions in comparison to lower quality coals. Beyond coal quality, the IEA notes that out of the 10 largest coal-producing countries, Australia has the third lowest emissions intensity for the production and transportation of coal. This is less than half of Russia's emissions intensity, and about one-third lower than the United States⁷¹.

FIGURE 17 THERMAL COAL ENERGY AND ASH CONTENT⁷²



51 Office of the Chief Economist, *Resources and Energy Quarterly* (March 2023).

52 Australian Bureau of Statistics.

53 World Steel Association, *World Steel in Figures 2023*.

54 World Steel Association, *Steel and Raw Materials* (Fact Sheet).

55 World Steel Association, *World Steel in Figures 2023*.

56 World Steel Association, *World Steel in Figures 2023*.

57 India Ministry of Coal, *Coal Directory of India (2021-22)*. Wash domestic coal (only) used in calculation.

58 Australian Bureau of Statistics.

59 World Steel Association.

60 Indian Government: National Steel Policy (2017).

61 GDP per capital (current prices, purchasing power parity, international dollars) – International Monetary Fund (2022). Population – International Monetary Fund (2022). Apparent Steel Usage & Apparent Steel Use per Capita – World Steel Association (*Steel Statistical Yearbook 2021*). South East Asia (Select nations): Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam.

62 International Energy Agency, *World Energy Outlook 2022*.

63 Global average in 2021, International Energy Agency, *World Energy Outlook 2022*.

64 World Coal Association, *Coal Facts*.

65 International Energy Agency, *Coal Information* (July 2023).

66 International Energy Agency, *World Energy Outlook 2022*.

67 International Energy Agency, *Coal Information* (July 2023).

68 International Energy Agency, *Coal Information* (July 2023).

69 International Energy Agency, *World Energy Investment 2018*.

70 S&P Global Market Intelligence World Electric Power Plants Database (March 2023) as at 2023, capacity weighted.

71 International Energy Agency, *World Energy Outlook 2019*.

72 Wood Mackenzie.

ALTERNATIVES TO METALLURGICAL COAL IN STEEL PRODUCTION

In the long-term, the steel industry is anticipated to decarbonise through increased efficiency, maximised use of recycled steel (scrap), and a breakthrough low-carbon steel-making technology⁷³. In relation to breakthrough technology, green hydrogen (in addition to molten oxide electrolysis) is currently seen as the most viable. Although not yet operating on a commercial scale, the process uses hydrogen as either an alternative injection material to PCI or as a reductant to produce Direct Reduced Iron (DRI). In addition to an abundance of green hydrogen, the decarbonisation of the steel industry needs capital for electrolyser capacity, replacement/conversion of BF-BOF capacity, and hydrogen transport.

Furthermore, DRI production generally requires the highest quality iron ore, in the form of lump or pellets, which is likely to require new deposits to be developed and pellet plant capacity to be built. To produce (just) two million tonnes of hydrogen-based steel, McKinsey & Company estimates⁷⁴ that 144,000 tonnes of green hydrogen is needed, combined with 900 MW of electrolysis capacity, which is six times the size of the largest current operational green hydrogen plant⁷⁵.

Carbon capture (and subsequent storage or use) has the potential to have a critical role in decarbonisation generally, given the ability for the technology to be applied across multiple industries. The process requires the capture of CO₂ and subsequent transport to a suitable storage and/or utilisation location. Although considered a proven technology⁷⁶, there are still challenges to overcome before reaching commercial scale⁷⁷.

The impact of the above indicators, and other factors that may emerge, on the uptake of alternative methods of steel production is uncertain. Consequently, there is a risk (both upside and downside) to metallurgical coal demand. For more information about this risk, see table 3, Response to climate-related risks.

The steel industry is anticipated to decarbonise through increased efficiency, maximised use of recycled steel, and a breakthrough low-carbon steel-making technology⁷³.

Containerised Freight

Our Containerised Freight business provides rail linehaul services for customers moving vital supplies for communities across Australia, including retail and supermarket goods, perishables and refrigerated goods, vehicles, machinery and equipment.

The Containerised Freight business leverages Aurizon's large network of rollingstock assets, rail haulage expertise and a national footprint, with operations in every mainland state and the NT. Aurizon continues to invest in the growth of this business, with new locomotives, wagons and terminal and port services infrastructure.

The large-scale 11-year contract Aurizon Containerised Freight secured with TGE in early 2023 will provide the rail capacity on these key routes, not only for TGE but a range of other customers seeking linehaul services between Australia's major capital cities.



Focusing on the first 10 years of the scenario projection period, under all but one scenario, there is flat to moderate growth in coal export volume.

Enterprise strategic planning

As part of our Strategy in Uncertainty framework, we undertake scenario analysis to enable the business to evaluate capital, fleet and haulage opportunities, and importantly, sustainability in the context of climate change risks (figure 18). A key component of this analysis is understanding the drivers of demand and supply for the commodities we haul. This process considers opportunities and risks that emerge over the medium to long term, where the timing and magnitude is less certain. In addition to the fundamental drivers of Australian coal and bulk commodities (figure 19), we also consider more subjective factors, such as government policy and trade considerations.

Our management team and Board are directly engaged in identifying the scenarios for consideration, as well as developing plans and initiatives to position the organisation to mitigate risks and take advantage of opportunities.

This strategic process is repeated at least annually to ensure that our strategic priorities are continually updated to proactively respond to emerging market dynamics and opportunities. The most recent scenarios for coal export volumes are shown in figure 20.

Focusing on the first 10 years of the scenario projection period, under all but one scenario, there is flat to moderate growth in coal export volume. However, there is naturally greater divergence in the second decade – export volumes fall under three of six scenarios over that 10-year period.

For Bulk volumes, the most recent scenarios are shown in figure 21. All scenarios demonstrate positive growth over the projection period, with the Rapid Decarbonisation scenario providing upside to Current Economics (base case), with clean energy technologies driving demand for critical minerals, in addition to increased demand for high grade iron ore (magnetite) for low-carbon steelmaking.

For Containerised Freight, the expanding interstate east-west and north-south containerised freight market is expected to continue its trajectory underpinned by Australia's economic growth. The Bureau of Infrastructure and Transport Research Economics (BITRE) forecasts the Australian interstate non-bulk rail freight volume to grow at a compound annual growth rate (CAGR) of 2.5% between 2020 and 2050 in its base scenario (figure 22). Given the importance of this new market to Aurizon, further analysis will be developed to support strategic planning.

FIGURE 18 WHERE WE USE *STRATEGY IN UNCERTAINTY* SCENARIOS



73 World Steel Association, *Climate change and the production of iron and steel*.

74 McKinsey & Company, *Decarbonisation challenge for steel* (June 2020).

75 Baofeng Energy Group, Ningxia Hui Autonomous Region, China.

76 Carbon capture and storage: one tool, many opportunities, <https://ecos.csiro.au/carbon-capture-and-storage-one-tool-many-opportunities/>

77 McKinsey & Company, *Scaling the CCUS industry to achieve net-zero emissions* (October 2022).

Financial application of scenarios

The application of the Strategy in Uncertainty scenarios in cash flow modelling highlighted the levers available to preserve free cash flow under volume downside scenarios:

- operating expenditure efficiency
- capital expenditure optimisation
- incremental free cash flow via fleet cascade opportunities
- asset disposal.

The flexibility of our fleet capacity enables our business to respond to shifting market dynamics and supports our focus on capital productivity and free cash flow. Modelling of our scenarios at a detailed level for commodity type, mine and rail corridor enables us to stress test key decisions. The modelled cash flow scenarios indicated resilience across the business over the 20-year period, and identified the opportunity for the Bulk business to target new markets and expand across supply chains, including port and terminal services. Under scenarios where decarbonisation is accelerated, the clean energy technology required in this transition will increase demand for Bulk commodities, such as iron ore, copper, nickel, lithium, cobalt, vanadium, and rare earth elements.

External scenarios

As well as developing our own long-term outlook for seaborne coal demand, we consider scenarios developed by external organisations, such as the IEA. One recommended disclosure from the TCFD is to consider different climate-related scenarios, including a 2°C or lower scenario. Although the Task Force does not recommend the use of a specific scenario, we continue to draw upon the best known and

most widely used scenarios produced by the IEA in the annual release of the World Energy Outlook (WEO). This is used for comparison with our internal scenarios. In addition to the (central) Stated Policies Scenario, the IEA has also provided the Announced Pledges Scenario and the Net-Zero Emissions by 2050 Scenario (NZE). The Announced Pledges Scenario assumes that all aspirational targets announced by governments are met on time and in full, including long-term net-zero and energy access goals. The NZE Scenario shows a pathway to achieve net-zero carbon emissions by 2050 globally and is consistent with the 'stabilisation of global temperature at 1.5°C above pre-industrial levels'. Included in the NZE Scenario is a global phase-out of unabated coal power plants by 2040, with the remaining coal plants still in use being retrofitted with technology, such as CCUS. Note: the IEA replaced the Sustainable Development Scenario (SDS) with the NZE Scenario in the WEO 2022.

In the WEO 2022 Announced Pledges Scenario, the IEA projects global trade to reduce by 60% in 2050 compared with 2021. Similarly, Australian coal exports reduce by 63% across the same period, representing a CAGR of -3.4%. This scenario would align between our Mine/Regulatory-Constrained Australia and Rapid Decarbonisation scenarios. In the NZE scenario, global coal trade is projected to decline by 90% between 2021 and 2050, with clean energy technologies progressively and speedily displacing coal. The IEA does not publish the coal trade by country in the NZE Scenario. It is recognised that there is no single pathway in reaching a decarbonised future. For example, the IPCC produced a report in 2018 projecting 90 pathways with at least a 50% chance of limiting warming to 1.5°C in 2100, each with different implications for global coal consumption⁷⁸.

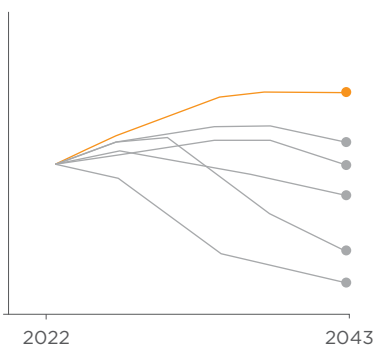
It is recognised that there is no single pathway in reaching a decarbonised future.

FIGURE 19 STRATEGY IN UNCERTAINTY KEY DRIVERS

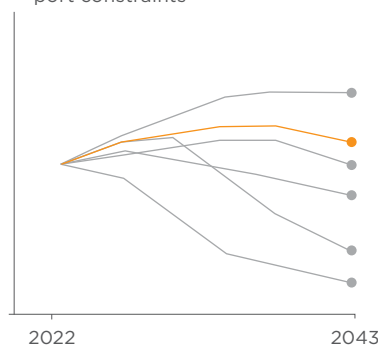
Metallurgical coal demand	Thermal coal demand	Australia coal supply	Australia bulk demand
— GDP — Climate policy — Crude steel production — Scrap availability — Steel production method — Domestic coal supply/import reliance	— GDP — Climate policy — Energy intensity — Energy generation and capacity mix — Coal-generation fleet pipeline — Domestic coal supply/import reliance	— Operating coal mine production — Trade flows — Export infrastructure — Global competitiveness — Domestic coal requirements — Climate policy — Coal mine project pipeline	— Infrastructure development — Food consumption — Energy transition — Australia mine projects pipeline — Australia mine life — Convertible road volumes (to rail)

FIGURE 20 STRATEGY IN UNCERTAINTY COAL VOLUME SCENARIOS⁷⁹**Commodity Strong**

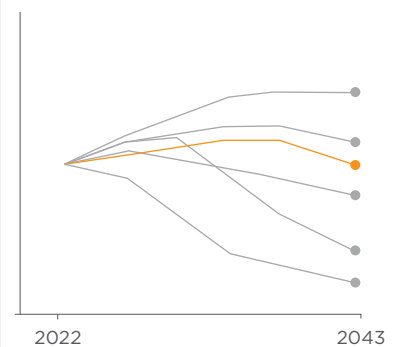
- High case seaborne demand driven by accelerated GDP growth
- No new climate change policies implemented
- Lower scrap availability, supports higher share of BOF-BF in crude steel production in Asia (China at 75% share and India at 70%)
- No Australian mine/port constraints

**Current Economics**

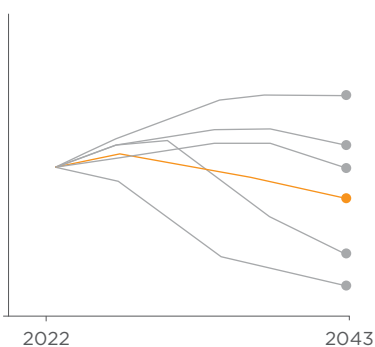
- BOF-BF share of crude steel production retained as dominant method of steel production in Asia
- India's GDP growth across the period is projected at 5% CAGR. Government 2030 steel production target (255mt) achieved a decade later
- Coal-fired power plants maintain typical economic life and new capacity limited to those under construction
- No Australian mine/port constraints

**Australia Market Share Loss**

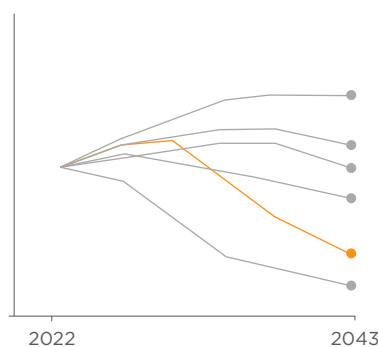
- Major coal exporters gain share in global coal trade at the expense of other export nations (including Australia) supported by new infrastructure capacity development
- Equivalent GDP and demand trajectory as Current Economics
- No Australian mine/port constraints

**Carbon-Constrained Asia**

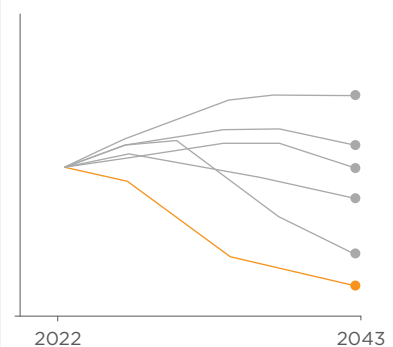
- Lower GDP growth reduces seaborne demand
- China self-sufficient in thermal coal from 2028
- Earlier closure of coal-fired power plants driven by government policy and significant reduction in renewable energy costs

**Mine/Regulatory-Constrained Australia**

- New coal mines limited to probable near-term opportunities
- Existing mine production expansions considered. No port constraint
- Equivalent GDP and demand trajectory as Current Economics

**Rapid Decarbonisation**

- Staggered retirement of global coal-fired electricity capacity, targeting oldest to newest plants. Complete closure by 2033
- ~50% share of steel production is hydrogen-based DRI/EAF by 2050
- BF-BOF share of global steel production reduces to around 10% by 2050

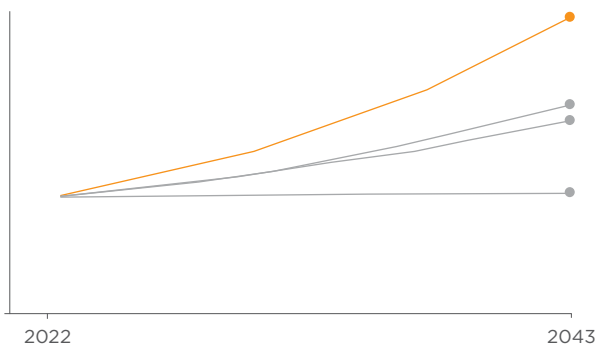


⁷⁸ Intergovernmental Panel on Climate Change (IPCC), *Special Report on Global Warming of 1.5°C* (2018).

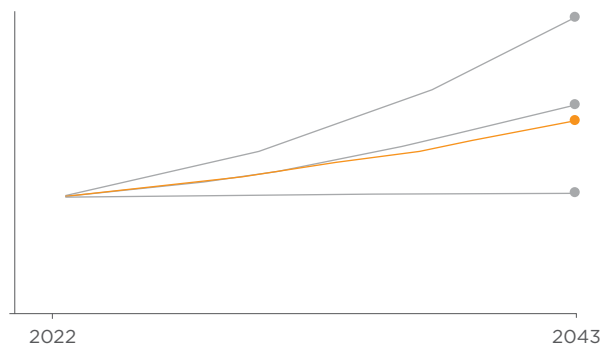
⁷⁹ See disclaimers section at beginning of report with respect to scenario analysis.

FIGURE 21 STRATEGY IN UNCERTAINTY BULK VOLUME SCENARIOS⁸⁰**Commodity Strong**

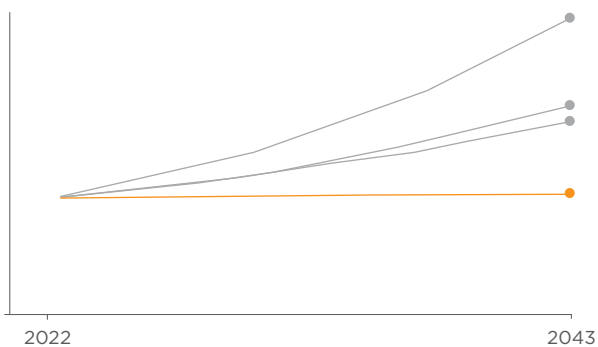
- Stronger GDP growth in Asia
- Low scrap availability reduces use of electric arc furnaces (EAF)
- Food consumption increases significantly per capita
- Commercial battery storage drives mineral demand
- Increased global instability drives investment in Australia
- Favourable growing conditions and effective farm management practices in Australia drive higher crop yields

**Current Economics**

- China steel production remains above 800mtpa over projection period
- India achieves steel production growth of 4 to 5%pa
- Global population growth and limited arable land supports increased use of fertilisers
- Sales of electric vehicles (EVs) reach over 30 million by 2030⁸¹
- Australia maintains strong cost competitiveness
- Favourable growing conditions and effective farm management practices in Australia support sustained higher crop yields

**Australia market share loss**

- Australia's cost competitiveness declines, resulting in loss of market share
- Regulation (mining, environmental and heritage) becomes increasingly stringent in Australia
- Unfavourable growing conditions in Australia and reduced productivity leads to lower crop volumes

**Rapid Decarbonisation**

- Accelerated implementation of climate change policies
- Around 50% share of steel making from hydrogen by mid-century. Magnetite projects prioritised, given high iron content and low impurities
- Strong investment in commercial battery storage in addition to electric vehicles and renewable energy infrastructure drive increased demand for battery minerals and base metals

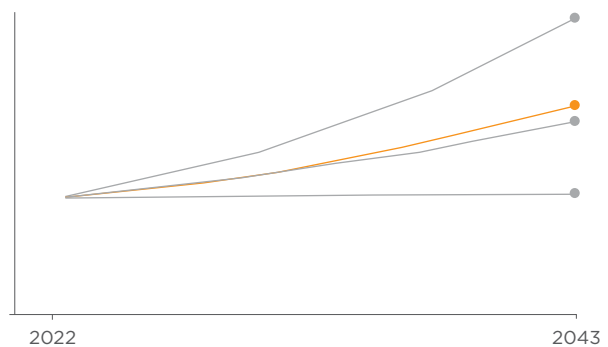
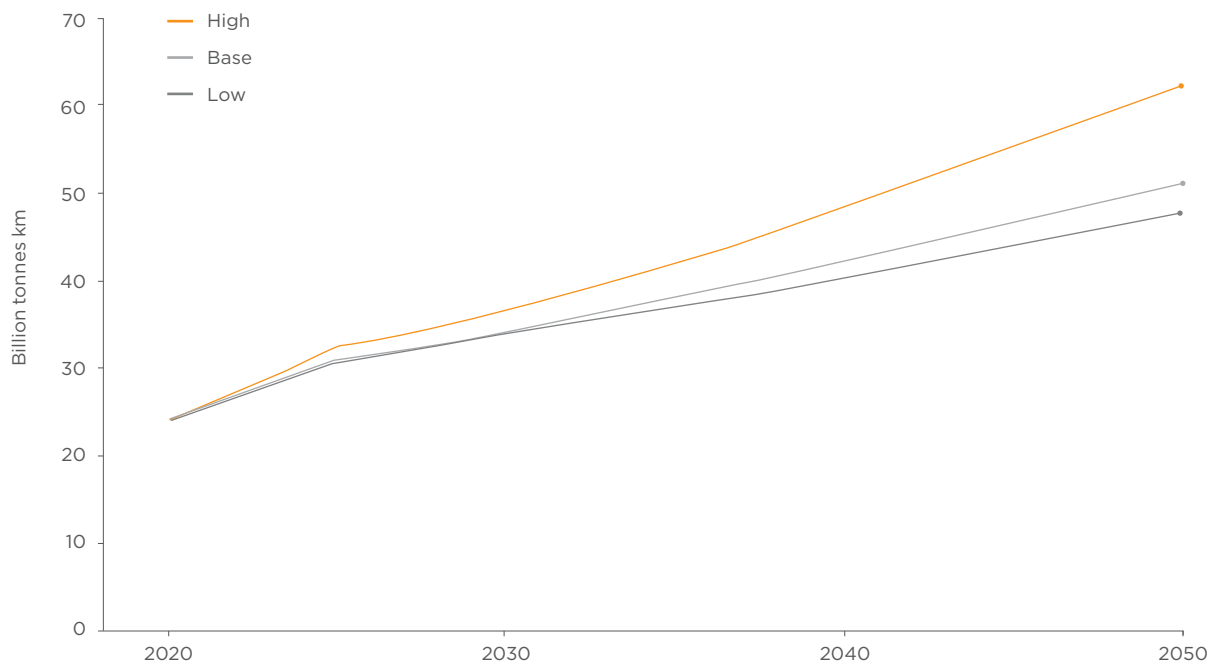


FIGURE 22 CONTAINERISED FREIGHT (BITRE FORECAST): AUSTRALIA INTERSTATE NON-BULK RAIL FREIGHT VOLUME (2020-2050)⁸²

We consider scenarios developed by external organisations, such as the IEA.



⁸⁰ See disclaimers section at beginning of report with respect to scenario analysis.

⁸¹ International Energy Agency, *Global Electric Vehicle Outlook 2022*.

⁸² Bureau of Infrastructure and Transport Research Economics (BITRE), Australian aggregate freight forecasts (2022 update) - Non-bulk rail freight dataset (billion tonne kilometres).

Climate change

As Australia's largest integrated rail freight business, we are investing in innovative solutions to facilitate decarbonisation of the supply chains we support.

This chapter provides an overview of the progress we have made toward our CSAP commitments and GHG emission targets.

Our CSAP commitments

- We will continually assess and enhance climate change considerations in the way we manage our business and key assets.
- We are committed to achieving net-zero operational GHG emissions by 2050⁸³.
- We will take a leading role in accelerating decarbonisation of Australia's freight sector.
- We will contribute to decarbonising the supply chains in which we participate.
- We are committed to increasing the proportion of carbon-neutral energy into our energy mix.
- We will investigate opportunities to invest in and/or generate carbon offsets with environmental and social co-benefits.



We are committed to achieving net-zero operational GHG emissions by 2050⁸⁴.

Planning for the challenges ahead

We see the effective management of physical and transition climate-related risks as the key to a thriving and resilient business. We continue to use scenario analysis to improve decision-making and support our climate-related financial disclosures (refer to our Governance and risk chapter). We are tackling the significant

technical challenges of developing low- or zero-emission locomotives suitable for hauling heavy freight across long distances and in Australia's harsh operating environment. For example, Aurizon's longest haul, from Melbourne to Perth, is almost 3,500 kilometres. On these corridors, there is currently no supporting infrastructure, such as charging stations for batteries or refuelling points for hydrogen.

AUSTRALIAN-FIRST BATTERY-POWERED FREIGHT LOCOMOTIVE INITIATIVE UNVEILED

In May 2023, Aurizon unveiled a flagship decarbonisation initiative under our CSAP – a Battery Electric Locomotive capable of zero emissions. In partnership with Progress Rail, one of our existing 4000 Class diesel locomotives will undergo a battery conversion, potentially paving the way for the transformation of our business and supply chains across the country. We are committed to investing in the ongoing development, demonstration and rollout of modern freight locomotives using renewable energy. This exciting project has the potential to unlock major benefits for Aurizon, environmentally and commercially. In addition, it has the potential to deliver large benefits for the community – cutting the nation's carbon footprint, reducing road congestion, and improving safety. To support the future deployment of Battery Electric Locomotives across the full range of our heavy haul routes, Aurizon will develop, build and trial prototypes of range-extending Battery Electric (BET) and Hydrogen Electric (HET) tenders. Aurizon's Fleet Decarbonisation Roadmap (figure 23) summarises the Emission Reduction and Zero-Emissions Capable Haulage initiatives designed to accelerate decarbonisation of our business and the supply chains we support.



L to R: Lance McCallum, State Member for Bundamba; Hon. Dr Steven Miles, Deputy Premier of Queensland; Colin Kerelchuk, Senior Vice President, Progress Rail; and Andrew Harding, Managing Director & CEO, Aurizon; at the event to announce the first battery-powered freight locomotive to be built in Australia, at Progress Rail's Redbank workshop in Ipswich, Queensland.

Delivering decarbonisation

Since launching our CSAP, we have made significant progress on key decarbonisation initiatives across our national footprint. We are leading the Australian rail industry in developing low-carbon solutions for rail operations, including a dedicated \$50 million Future Fleet Fund. Our decarbonisation efforts are focused on two innovation streams: Emission Reduction (immediate impacts) and Zero-Emissions Capable Haulage (development of our future fleet).

However, there are operational risks associated with a large, complex and multi-year decarbonisation program, such as those relating to:

- availability of technology at scale to meet those ambitions
- availability and efficiency of renewable energy to power the transition
- reliance on third parties, including the implementation of government policy, to facilitate transition costs associated with decarbonisation technologies, energy sources or ACCUs
- targets, or actions taken in progressing towards those targets, not being considered sufficient to key stakeholders.

Emission Reduction Initiatives

We have dedicated teams working to deploy immediate or near-term solutions to reduce emissions from our diesel locomotive fleet while we advance the research necessary to achieve on our 2050 net-zero emissions target⁸⁵. We have made significant progress in reducing the prolonged idling of our locomotives by using reliable starter battery solutions combined with Automatic Engine Stop Start functionality. More details on this and other Emission Reduction initiatives are provided in our Environment chapter.

Zero-Emissions Capable Haulage

We have joined with global technical partners and leading Australian universities to work on renewable energy solutions for locomotives that use batteries or hydrogen fuel cells, or a combination of both. The centrepiece of our Zero-Emissions Capable Haulage program is a prototype of a battery-powered freight locomotive, the first built in Australia, and suitable for heavy haulage requirements in Australia's harsh operating conditions.

83 See footnote 4.

84 See footnote 4.

85 See footnote 4.

FIGURE 23 FLEET DECARBONISATION ROADMAP

Aurizon is committed to deploying current and near-term solutions to reduce our carbon footprint while advancing the research necessary to deliver on our 2050 net-zero emissions target⁸⁶.

Emission Reduction

These deliver immediate, high local-impact, emission reductions for our customers.



Reduce idling

Deployment of Auto Engine Start Stop systems will prevent extended engine use due to prolonged periods of idling by up to 50%.



Zero carbon drop-in fuels

We are exploring the use of zero carbon drop-in fuels. Fuels containing renewable diesel or synthetic diesel could quickly and dramatically reduce carbon emissions by 20-25%.



Train Energy Management

Deployment of Train Energy Management solutions will deliver the consistency needed to optimally drive the new generation of battery electric locomotives but, in the short term, this same technology can deliver over 10% emissions reduction.

Zero-Emission Capable Vehicles

There are three types of vehicles. We will develop, build and trial prototypes to prove technology solutions are fit for purpose, gain experience with the required infrastructure, and progress these prototypes into solutions for our operational business.



Battery Electric Locomotive (BEL)

Platform provided by locomotive OEMs with pantograph charging system and battery technology providing tractive effort and capturing regenerative braking energy.



Battery Electric Tender (BET)

A battery on wheels, provides additional battery capacity to the BEL, extending mid-range haulage tasks, which account for about 50% of our operations.



Hydrogen Electric Tender (HET)

Hydrogen storage and fuel cell charger on wheels, charges BEL during operation, extending the range of the longest haulage tasks with the highest energy demands.

Our Future Fleet Strategy

Aurizon has developed a Future Fleet Strategy comprising three proposed modular end-state solutions capable of providing low- or zero-emission solutions for our customers across our service routes (figure 24).

Renewable energy

In June 2022, Aurizon entered into an Energy Supply Agreement (ESA) with Queensland's clean energy retailer CleanCo Queensland to provide electricity to Aurizon Network for the next five years.

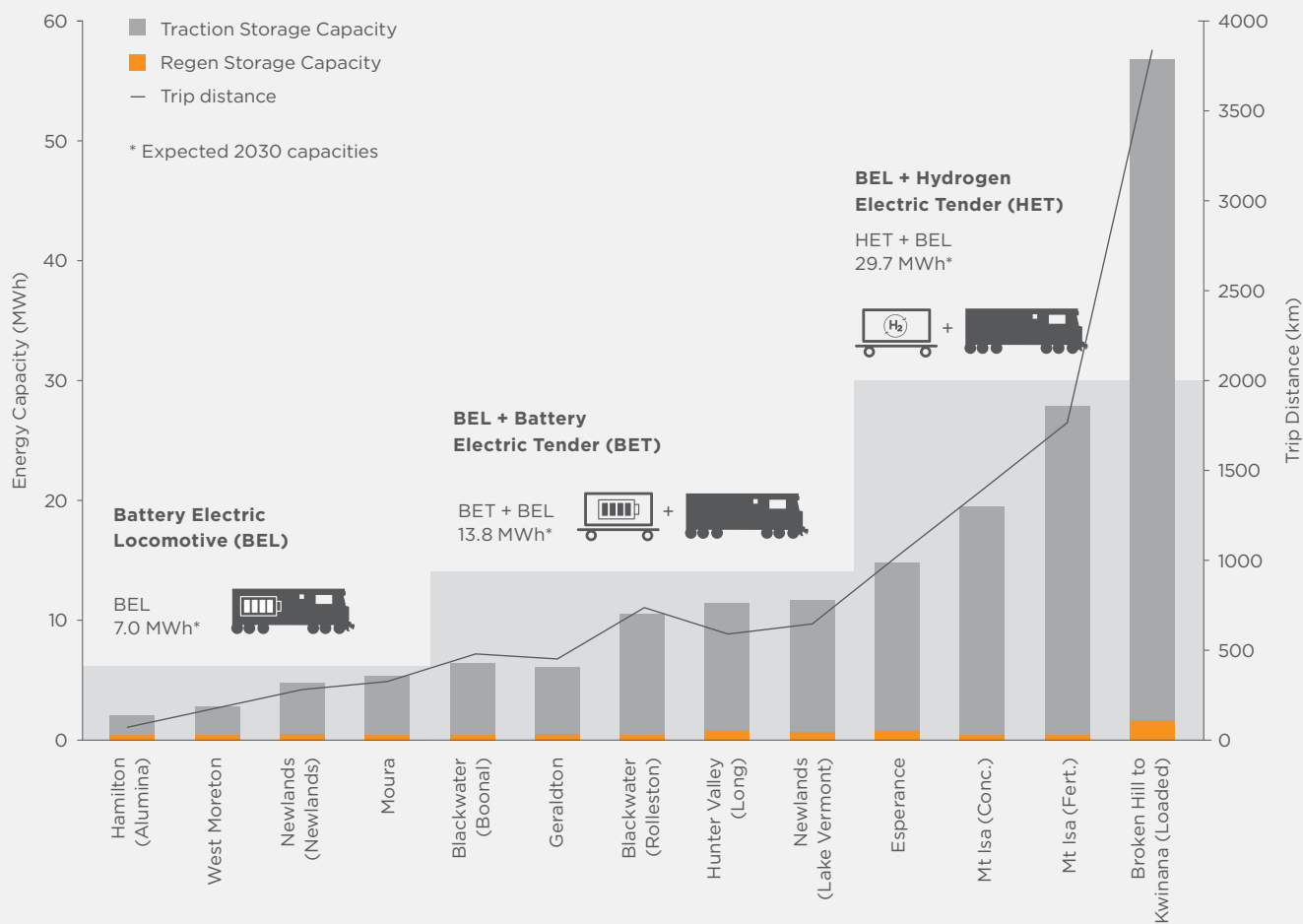
Under the agreement, CleanCo will progressively ramp up to supply 25% renewable energy to Aurizon Network as a fixed block linked to generation from the following projects:

- Western Downs Green Energy Hub, a solar farm near Warwick (from January 2024)

- Kaban Green Energy Hub, a wind farm southwest of Cairns (from January 2024)
- Dulacca Renewable Energy Project, a wind farm west of Toowoomba (from July 2025).

We continue to make significant progress under our Facilities Energy Efficiency Roadmap, installing solar arrays and upgrading yard lighting with LED technology to improve energy efficiency. During FY2023, our total solar generation capacity reached 686 kilowatts (kW), exceeding our CSAP target of 525 kW by 2024. Total behind-the-meter solar generation capacity is planned to reach 1,158 kW during FY2024.

FIGURE 24 OUR FUTURE FLEET STRATEGY



Aurizon is investigating both narrow- and standard-gauge BELs. Independently, BELs can be used to replace a standard Diesel Electric Locomotive, either singularly, or as part of a hybrid consist. They can also be used to capture regenerative braking energy.

BETs are primarily a range extender for the BELs. The intended application is mid-range hauls, with charge flowing from the BET to the BEL. BETs can be charged while on train, or marshalled on and off trains as required, adding flexibility to the number of hauls that can be operated with a BEL. BETs also provide the opportunity to transition our fleet progressively, through incorporation into a hybrid fleet, providing power to Diesel Electric locomotives, and capturing regenerative braking energy.

HETs are another form of range extender for the BEL. A HET provides more capability than a BET, extending the range to Aurizon's longest haulage tasks, with the highest energy demand. Refuelling of HETs en-route may be necessary for the longest hauls that Aurizon operates.

86 See footnote 4.

Safeguard Mechanism reforms

Aurizon is one of two open access rail operators captured under the National Greenhouse and Energy Reporting Regulations 2008 and is a responsible emitter under the Safeguard Mechanism. Open access rail operators regularly compete in contestable markets with road transport operators in key regional freight corridors. Rail transport accounts for half of Australia's freight transport yet is responsible for only 4% of transport emissions⁸⁷. In recent years, while over 65% of rail Scope 1 emissions have been captured under the Safeguard,^{88,89,90} only 2% of road freight Scope 1 emissions have been captured (figure 25).

Aurizon recognises the important role of reforms to the Safeguard Mechanism in enabling Australia to meet its GHG emission reduction targets. Aurizon does, however, note that current settings promote higher emissions from road transport at the expense of lower carbon outcomes from the rail freight industry. Using rail for heavy freight remains a particularly safe and environmentally friendly mode of land freight transport – up to 75% fewer GHG emissions are generated by rail per tonne of freight than road.

Aurizon welcomes the Australian Government's recognition of the important role of rail freight in Australia's net-zero transformation, with the creation of the Industrial Transformation Stream from an allocation of \$400 million from within the \$1.9 billion Powering the Regions Fund. The Industrial Transformation Stream funding will provide grant support to investments made by the private sector that deliver carbon emission reductions in regional Australia, recognising that the development of new emissions reduction technologies involves large upfront costs, and it will be some time before these technologies are commercially viable.

Aurizon looks forward to seeing further details of the Industrial Transformation Stream and how funding will be made available for specific emission reduction initiatives.

On 29 March 2023, the Clean Energy Regulator confirmed acceptance of Aurizon's nomination (submitted June 2022) to transition to a single National Transport Facility, pursuant to NGER Regulations, under Aurizon Operations Limited.

Offsetting hard-to-abate emissions

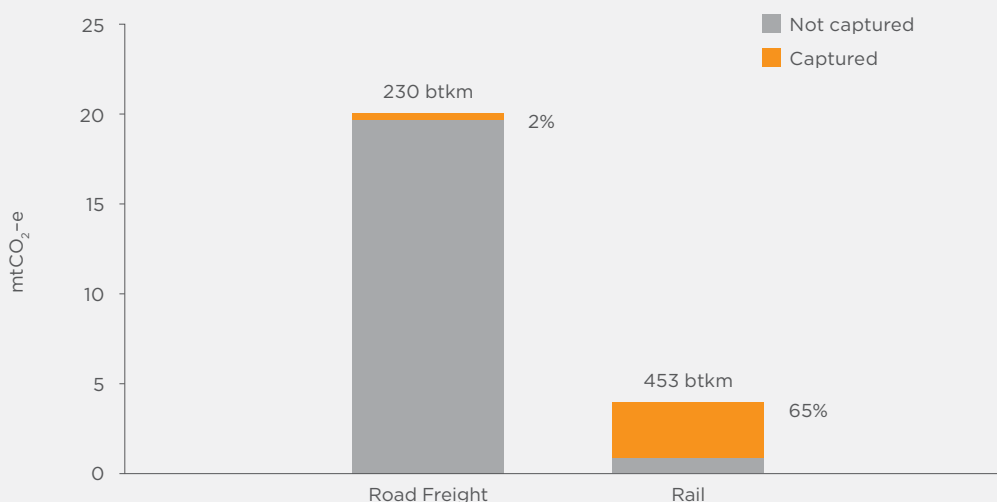
Aurizon's ability to reduce emissions at scale across the supply chains we support relies on the development, trial and commercialisation of future feet solutions.

As these solutions are being developed, Aurizon will be required to purchase carbon offsets to meet our decarbonisation goals and obligations under the Australian Government's Safeguard Mechanism.

Aurizon has developed an ACCUs purchasing strategy that is aligned with the government's proposed review of the Safeguard Mechanism in FY2027. Our participation in the Australian carbon market commenced during FY2021 with an initial transaction to buy approximately 1,000 ACCUs and was augmented in FY2023 with the purchase of another 50,000 ACCUs.

Under the Safeguard Mechanism reforms, which commenced on 1 July 2023, Aurizon is required to maintain its Scope 1 emissions below an annually declining regulated baseline. Failure to do so will expose Aurizon to direct carbon costs and/or regulatory action. Due to current technology constraints, Aurizon will be required to purchase and retire ACCUs to meet its compliance obligations from FY2024.

FIGURE 25 RAIL VERSUS ROAD EMISSIONS, CAPTURED UNDER SAFEGUARD⁹¹



Aurizon has developed an ACCUs purchasing strategy that is aligned with the government's proposed review of the Safeguard Mechanism in FY2027.

GHG emissions

Monitoring our progress

Our total operational GHG emissions (Scope 1 and 2) were 876 ktCO₂-e in FY2023, representing a 4.97% increase from the previous reporting period. The integration of Aurizon Bulk Central (diesel haulage) has driven increased Scope 1 emissions. Conversely, lower coal volumes hauled by the electric fleet in Central QLD has decreased Scope 2 emissions.

Aurizon's operational emissions intensity (OEI) decreased by 0.6% from the previous reporting period to 13.87 kgCO₂-e/'000 NTK. This figure is slightly above Aurizon's FY2021 baseline OEI of 13.58 kgCO₂-e/'000 NTK, largely due to the integration of Aurizon Bulk Central.

Aurizon received external assurance (a statement of limited assurance) covering our Scope 1, 2 and 3 GHG emissions, which is provided at the end of this report. Further information regarding our emissions profile is provided below (figure 26) and summarised in our Sustainability metrics on pages 80 and 81.

Scope 1 emissions

Aurizon's Scope 1 emissions are largely generated by our diesel locomotive fleet and were 591 ktCO₂-e for FY2023, representing an increase of 16.7% from the previous reporting period.

Scope 2 emissions

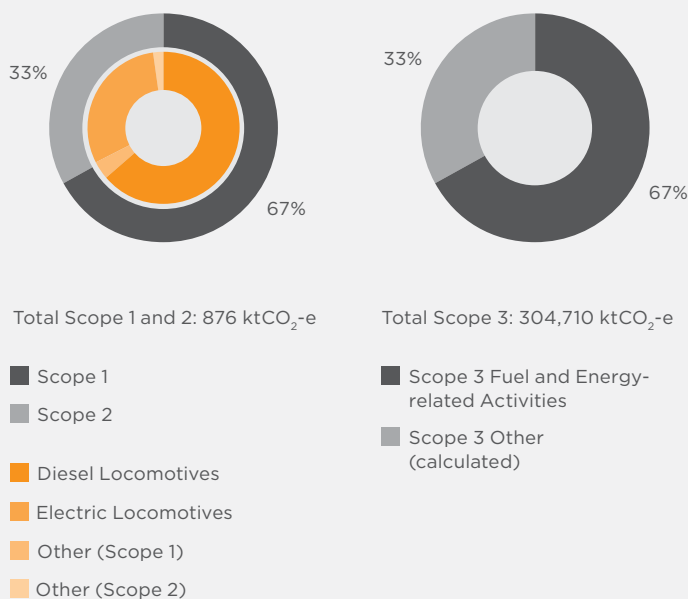
Aurizon's Scope 2 emissions are generated through the purchase of electricity to power our operational facilities and CQCN. Our total Scope 2 emissions⁹² for FY2023 were 285 ktCO₂-e, representing a 13.1% decrease from the previous reporting period.

Scope 3 emissions

The majority of Aurizon's Scope 3 emissions are generated from the activities of our upstream suppliers and were estimated to be 305 ktCO₂-e in FY2023. Aurizon uses an internal basis of preparation, aligned with the GHG Protocol Standard⁹³ to inform our Scope 3 reporting boundary and calculation methodology. We have made changes to our calculation methodology during FY2023 and continue to improve our understanding of the relevant Scope 3 reporting categories for our business. These changes have increased the coverage of captured spend for purchased goods and services, expanding the spend-based emissions estimates, which now includes approximately 20% of our total spend. For comparative purposes, we have recalculated our FY2022 Scope 3 emissions. They are now estimated to be 178 ktCO₂-e, an increase from our previously reported 83 ktCO₂-e. Further detail on our calculation methodology can be found in the Sustainability metrics on pages 80 and 81.

Overall, there has been a 70.9% increase in Aurizon's estimated Scope 3 emissions from FY2022 to FY2023. The main factor driving this difference is a material change in the Scope 3 emission factors applied to Aurizon's fuel consumption. Each year, the Department of Climate Change, Energy, the Environment and Water publishes *National Greenhouse Accounts Factors*, a reference document to estimate greenhouse gas emissions. The 2022 report (published in February 2023) included a significant uplift in the emissions factors for liquid fuels (such as diesel, petroleum-based oils, petroleum-based greases, gasoline and LPG). This has almost tripled Scope 3 emissions for our Fuel & Energy-Related Activities. See the Sustainability metrics on pages 80 and 81.

FIGURE 26 AURIZON'S GREENHOUSE GAS PROFILE (FY2023)



87 Climate Change Australia (CCA 2020) *Prospering in a low-emissions world: An updated climate policy toolkit for Australia*.

88 Bureau of Infrastructure, Transport, Regional Development and Communication (BITRE 2021), *Australian Infrastructure and Transport Statistics: Yearbook 2021*, p.250.

89 Safeguard facility reported emissions 2020-21 (cleanenergyregulator.gov.au)

90 The Grattan Institute (2022), *Practical Policies for Cleaner Freight*.

91 Aurizon's estimations related to designated rail transport facilities under Safeguard with reference to BITRE (3), CER (4) and Grattan Institute (5).

92 Calculated using the location-based method required under the *NGER Scheme*. This method reflects the average emissions intensity of the grid on which energy consumption occurs.

93 GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Environment

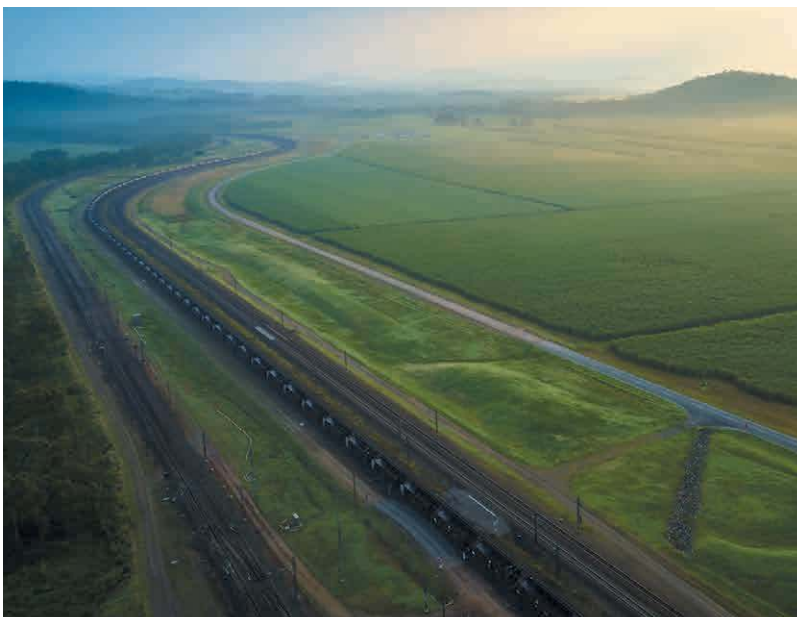
We recognise that we are responsible for helping our local communities and supply chains to deliver environmental value through effective management of environmental risks and improved enterprise environmental performance.

We use proactive and evidence-based management measures covering key environmental issues, such as climate change, resource use and clean air.

Clean air

As Australia's largest integrated rail freight business, with a sizeable diesel locomotive fleet, we recognise the responsibility to ensure our operations contribute to maintaining and improving our country's world-leading air quality. As outlined in the 2022 Sustainability Report, one way we seek to achieve this is by using short-term emission reduction strategies, such as deploying reliable starter battery solutions to enable Automatic Engine Stop Start (AESS) technology on our extensive fleets of diesel electric locomotives (DEL) to reduce unproductive idling. As previously outlined, the introduction of lithium-ion (Li-ion) starter battery technology presents pivotal improvement in battery reliability, enabling reliable use of AESS on 4000/4100/ACN Class locomotives. AESS can help to reduce almost 50 litres (L) of diesel fuel per locomotive per day.

In FY2023, Aurizon rolled out Li-ion batteries to 15 GT42 (4100 Class) locomotives in Queensland, potentially saving up to 750 L/day of diesel. We are now focused on expanding Li-ion starter battery use on more of the fleet, with a recent trial fitment on a 2300D locomotive. Along with a planned modernisation program, these locomotives will be enabled with AESS functionality. In addition, Aurizon is trialling the use of KickStart battery supercapacitor systems on our GWA locomotives so we can confidently rely on their AESS capabilities. KickStart has also been fitted to a Q Class locomotive for trial and, if successful, will be combined with SmartStart AESS technology. It is our intention to continue to expand emission reduction initiatives (reducing idling and managing train energy) across multiple locomotive classes and multiple depots within our operational footprint.



Aurizon continues to collaborate with respective stakeholders.

Coal dust

We continue to work collaboratively with our supply chain partners across our operations to minimise coal dust emissions from our coal haulage.

As part of this approach, we focus on maintaining world-leading solutions tailored to suit the unique needs of each coal supply chain. In FY2023, the CQCN supply chain continued its strong performance by implementing effective key controls, as documented in the CQCN Coal Dust Management Plan (CDMP). The CDMP recognises that each part of the supply chain has a role to play in minimising emissions, including load profiling and veneering of coal wagons before haulage on the CQCN to port.

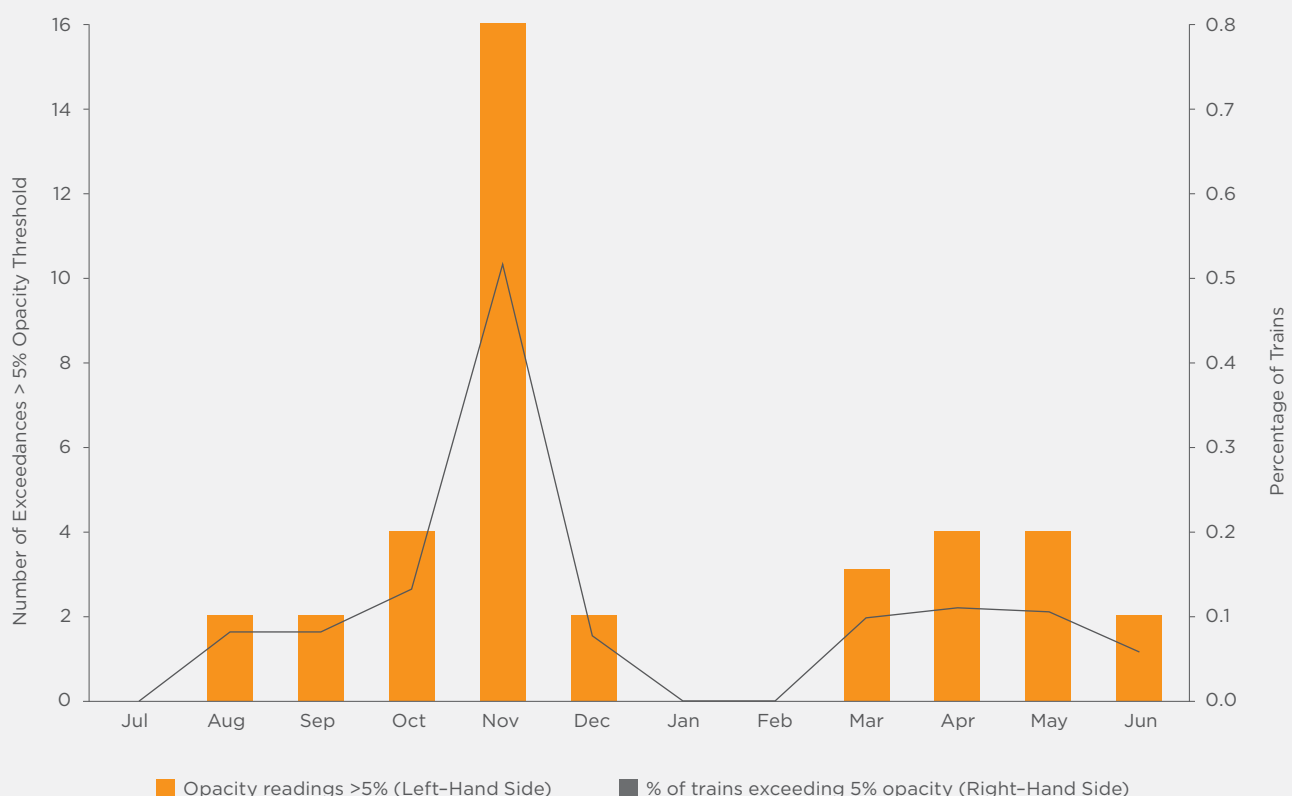
Across the CQCN, opacity (a measure of air quality) is monitored on each of the four rail systems. Opacity trends are actively tracked, including investigating any exceedance of the Department of Environment and Science's agreed 5% opacity threshold. In FY2023, the

number of validated exceedances recorded on the CQCN increased from 28 (FY2022) to 39 (FY2023). This represents 0.1% of approximately 40,000 recorded coal train movements in FY2023. The increased number of exceedances in November was attributed to veneering system faults at a coal loading facility.

Aurizon continues to collaborate with respective stakeholders that are part of other regional supply chains in implementing controls directed at improving air quality. On the South-West System (QLD), the results of monitoring by the Department of Environment and Science continue to demonstrate rail transport (including coal haulage) along the system complies with air quality criteria (PM2.5, PM10, TSP and dust deposition).

In the Hunter Valley (NSW), Aurizon has continued its focus on complying with its Environment Protection Licence for rollingstock operation on licensed rail networks that requires minimisation of dust generation.

FIGURE 27 PERCENTAGE OF VALID AURIZON TRAIN SERVICES EXCEEDING 5% OPACITY ON THE CQCN (FY2023)



Noise

Aurizon submitted its Annual Rolling Stock Performance Report to the NSW EPA, confirming all locomotives that had major engine overhauls in 2022 were generally compliant with required noise thresholds and able to operate without modification. All Aurizon freight wagons in operation complied with specifications for Angle of Attack (a key contributor to wheel squeal). Compliance with these stringent noise requirements has contributed to the NSW EPA making the determination to remove from Aurizon's licence the requirement for noise pollution studies directed at idling, horn use, braking, bunching, and stretching.

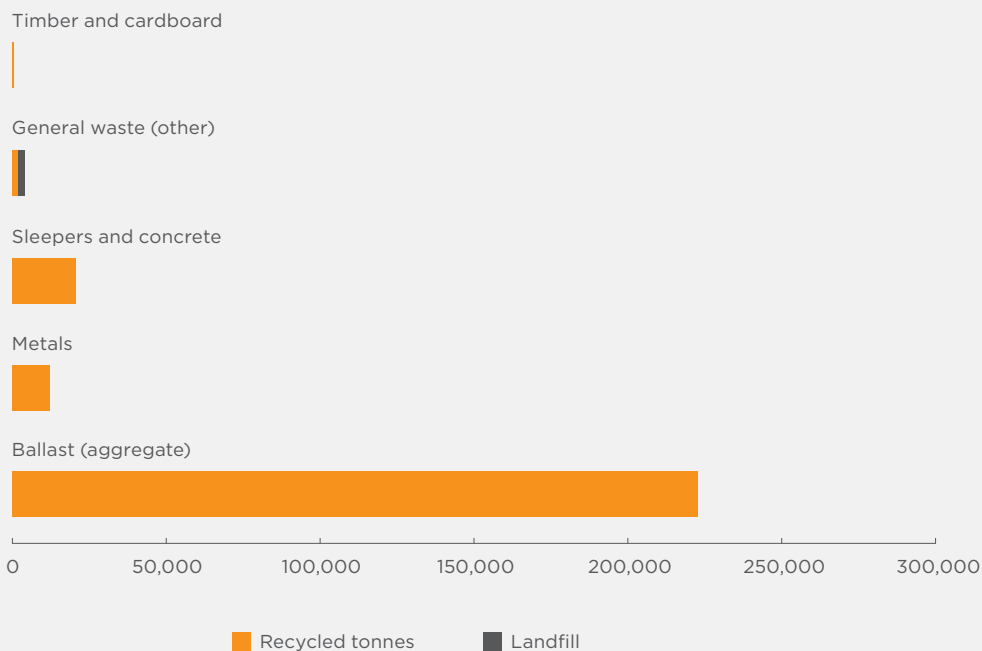
Despite the increase in SA operations, associated with the acquisition of One Rail Australia, Aurizon maintained compliance with the stringent noise requirements related to locomotive engines and wheel/rail interface in its SA EPA rollingstock licensing.

Waste and resource management

At Aurizon, we continue to seek opportunities to improve operational efficiency, including the resources we consume and the waste we produce. Figure 28 shows our FY2023 waste output, including landfill, and recycled, treated and incinerated wastes.

In FY2023, Aurizon used 284 megalitres of potable water nationally. Although the transport sector is not as water intensive as the supply chains it supports, it is acknowledged that Aurizon has a role to play in reducing water stress and preventing pollution.

FIGURE 28 AURIZON'S TOTAL RECORDABLE WASTE STREAMS IN FY2023 (TONNES)





JILALAN TREATMENT PLANT OPTIMISATION

Aurizon's Jilalan Yard in Central QLD supports locomotive and wagon maintenance facilities, crew depot, site offices, wagon washdown and provisionings. Output from these operations was controlled by:

- a small onsite Sewage Treatment Plant (STP) designed for hydraulic loading of 38 kL/day, which produced Class C effluent (i.e., no nutrient removal) for onsite irrigation
- an onsite Pollution Treatment Plant (PTP), servicing the locomotive maintenance sheds, licensed to discharge 60 kL/day of effluent to a Great Barrier Reef catchment waterway
- an onsite PTP, built in 2009, servicing wagon washdown and stormwater run-off designed to treat 35 kL/day, producing recycled water of varying quality for onsite use.

In February 2023, a significant project to optimise and improve treatment plant options for Jilalan was delivered. Aurizon worked with Mackay Regional Council to enable lawful discharge of all raw sewage (17 kL/day) and some treated effluent (10 to 40 kL/day) to an offsite council-operated Wastewater Treatment Plant about one km from Jilalan Yard. This enabled decommissioning of the STP and one PTP and a redesign of the remaining PTP, enabling it to treat 160 kL/day. This project improved environmental outcomes by either decommissioning or improving PTPs and improving waste outcomes. Removal of the decommissioned treatment plants also frees up spatial resources for operational needs and reduces the extent of environmental licensing required for the site.

The project will involve the planting of more than 50,000 trees on a 118 hectare site that has the potential to generate about 1,300 ACCUs per annum.

Biodiversity and land management

In December 2022, Aurizon was successful in applying for an Emissions Reduction Fund - registered project under the *Carbon Credits (Carbon Farming Initiative) Act 2011* (the CFI Act). The project is situated in Central QLD, in the Mackay region local government area, and constitutes reforestation by environmental plantings over 118 hectares on a site owned in freehold by Aurizon.

The project will involve the planting of more than 50,000 native trees on a previously disturbed site that adjoins a National Park, in the Great Barrier Reef Catchment and the Fitzroy natural resource management region. As it matures, the project, which has an expected life of 25 years, has the potential to generate about 1,300 ACCUs per annum.

Aurizon proposes to start planting activities in early 2024, with the project's establishment to be, in part, financially supported by an Australian Government Carbon + Biodiversity (C+B) Pilot grant. In addition to generating ACCUs, when realised, the project will increase coverage of native vegetation in the Great Barrier Reef Catchment, increase local biodiversity values, and enhance existing wildlife corridors on the Hatfield and Connor Ranges.



Intended site of the project plantings.

AURIZON BULK CENTRAL INTEGRATION

In late July 2022, the purchase of One Rail Australia presented the opportunity to consolidate existing One Rail Australia (now Aurizon Bulk Central) and Aurizon licensing, including the environment protection licence for railway operations (SA) and the licence to conduct listed waste transportation and storage (NT). Aurizon Bulk Central's emission reporting requirements, including NGER and National Pollutant Inventory (NPI), have also been incorporated into our national reporting requirements. Aurizon Bulk Central has been steadily integrated into Aurizon's existing annual second line environmental assurance program, which assesses compliance with legislative obligations and applicable licence/permit/authorisations. No material non-compliances were reported.

In 2020, One Rail Australia was responsible for a hydrocarbon spill of about 18,000 L at its Berrimah terminal (NT). As part of the immediate response, the spill was largely cleaned up (including recovering 25% of the fuel); however, the NT Environment Protection Authority issued notice requiring completion of an environmental audit in response to the spill and management of soil remediation activities. Under supervision of an independent auditor, subsequent soil and groundwater assessments were completed. This work, and associated reporting, was concluded in June 2023, indicating residual hydrocarbons in groundwater and soil onsite pose low risk to site workers and the mangrove environment bordering the terminal. Reporting is currently under review by the EPA. It is Aurizon's expectation that completion of groundwater assessment and monitoring in 2024 will meet regulatory requirements, enabling closure of the matter.

Compliance reporting

In FY2023, Aurizon Holdings Limited (including its subsidiaries) did not incur any fines or sanctions for non-compliance related to environmental harm. Four notifiable environmental incidents, two in QLD, one in WA, and one in the NT, were reported to the respective state government environmental regulators. The QLD and NT incidents resulted from collisions with third parties where Aurizon was not at fault. Of these, the most significant incident, when the Adelaide-to-Darwin service collided with a truck at a level crossing near Katherine NT in June 2023, resulted in the derailment of two locomotives, fire and the loss of ~50,000 L of diesel.

None of the incidents caused ongoing harm to people or the environment, nor have required or are anticipated to require ongoing remediation.

TABLE 5 NOTIFIABLE INCIDENTS IN FY2023

Location	Volume/Extent	Material
Goondiwindi, QLD	1,700 L	Hydrocarbon
Cloncurry, QLD	100 L	Hydrocarbon
Waroona, WA	1,000 L	Hydrocarbon
Katherine, NT	~50,000 L	Hydrocarbon



People

At Aurizon, our people are our greatest asset. We have over 5,700 employees, with more than 86% living and working in regional Australia.

Our purpose – growing regional Australia by delivering bulk commodities to the world – is underpinned by a workplace culture of connection to enable great outcomes. Through our commitment to safe and efficient delivery for our customers, we are building our workforce for the future. This includes investing in our people and partnerships, and creating an inclusive workplace.

Developing our people

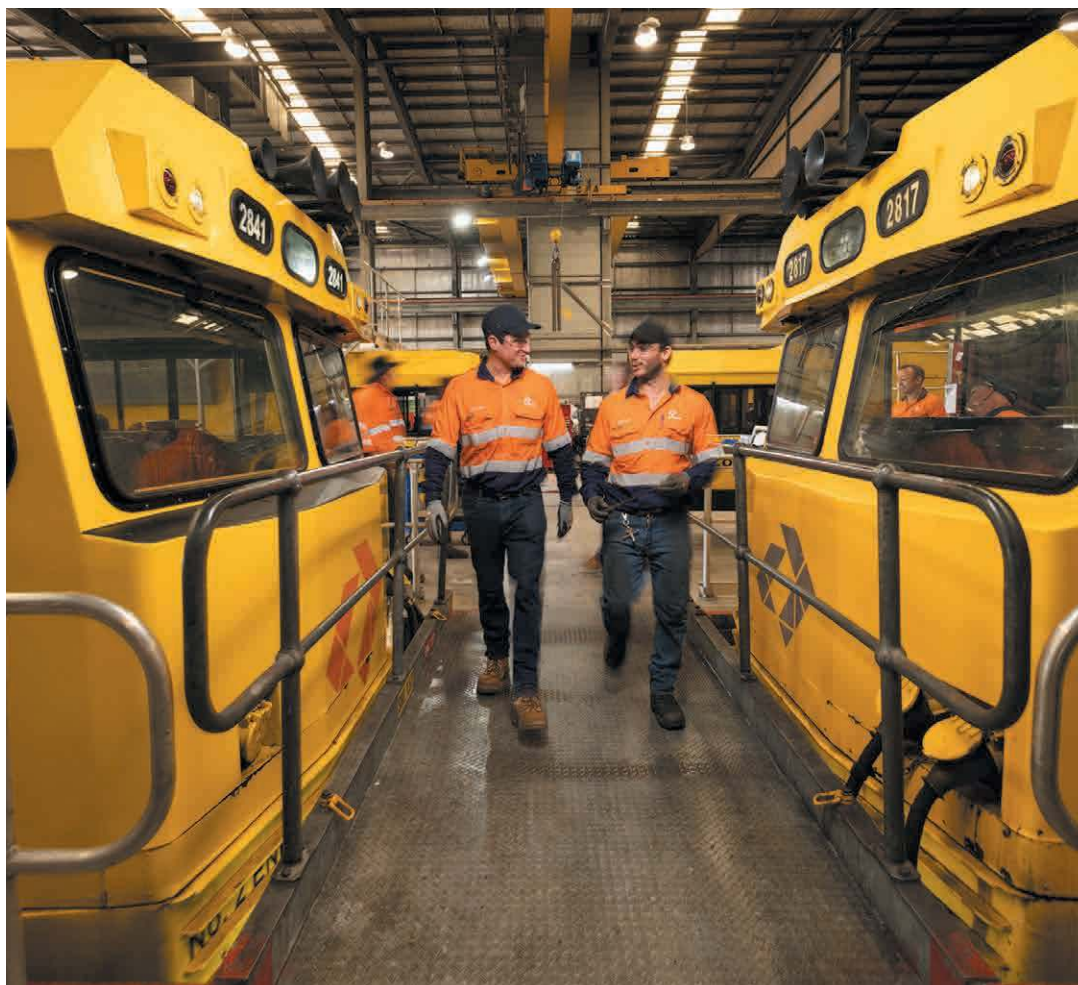
We strive to create a culture where people live our values, and are engaged and enabled to do their best work. We are passionate about developing all our people, and recognise that meaningful development comes in many different forms.

Development programs

Our development programs have become part of the way we operate at Aurizon. Targeted leadership programs, such as Leading for Results and Leading for Safety, ensure leaders at all levels have the skills to support their teams to perform at their best, now and in the future. During the year, we have also rolled out training to 275 leaders on Aurizon's Just and Fair methodology and toolkit. Just and Fair is underpinned by our values, and focuses on ensuring that investigations are managed in a fair and consistent approach across the business.

In addition to leadership development, we have identified new programs to develop the capability we need for the future. Programs such as Careers in Action support recent

We strive to create a culture where people live our values, and are engaged and enabled to do their best work.





PEOPLE INSIGHTS SURVEY

In 2022, we surveyed our people for the second time about their experiences of working at Aurizon to help shape our future priorities. The responses gave us valuable insights into what is working for our people and where we could improve. Feedback from our people resulted in the following key initiatives being rolled out:

- Capability Framework: to help our people identify development opportunities for current and future roles
- *myLearning*: to provide a central learning platform for Aurizon's training and certification
- Employee Value Proposition: reinforcing our commitment to employees and the benefits and core strengths we offer as an employer.

When the survey was conducted again in mid-2023 to track our progress, 47% of our people participated, which is a 7% increase on the prior year. Areas our employees identified as Aurizon's strengths include safety, employee wellbeing, connection with strategic objectives, and innovation. Employee feedback in the survey continued to highlight that work-life balance and rostering are important issues and, as such, we will ensure they remain a key focus area over the next 12 months.

graduates and those transitioning to the rail industry. Our Rail 101 program stitches our diverse organisation together to demonstrate to participants of all experience levels how their role contributes to the bigger picture. During FY2023, 465 of our people participated in a development program. We are investing in training for our biggest employee group – train drivers. New dedicated training resources, enhancements to curricula and supporting technology have delivered a throughput increase of over 200% in FY2023.

myAcademy online learning

Last year, Aurizon rolled out *myAcademy*, an online learning platform that offers thousands of learning activities from more than 160 education and training providers. It helps our people grow by completing self-paced learning opportunities when and where it best suits them. Courses ranging from computer

skills to soft-based skills, such as coaching and emotional intelligence, enable employees to select activities that align to their current role or to their career aspirations. Since the program went live in September 2021, over 60% of employees have accessed *myAcademy* and completed 20,000 learning items.

This year, *myAcademy* has been strengthened to allow a more targeted approach to learning. We have carefully curated over 300 learning items across eight key competencies that are aligned to our Capability Framework. Our people can build capability in their current role, or work towards a role they might want in the future.

Respecting and protecting cultural heritage

During FY2023, Aurizon completed a comprehensive review of its cultural heritage (CH) management resources. It involved detailed gap analyses of existing CH documentation, statutory obligations, and current agreements with Indigenous parties. Following this analysis, a CH Governance Framework (CHGF) was implemented. Leading the CHGF is the CH Commitment Statement, which is 'to minimise our impact on Indigenous and non-Indigenous cultural heritage through a framework founded on knowledge, understanding and respect'. The Commitment Statement is underpinned by an implementation framework that:

- specifies jurisdictional requirements
- articulates organisational responsibilities and accountabilities
- through bespoke guidelines and procedures, outlines how Aurizon's CH obligations are to be achieved during the planning and execution of work, including engagement with Indigenous parties.

The CHGF is available to all employees and contractors. It is supported by two online modules: (1) to promote awareness of CH and provide linkages to the CHGF; and (2) to target guidance for employees whose roles interface with CH to demonstrate how CH values are protected during the conduct of work. Over 1,200 employees have completed the first module.

Our Network asset and maintenance projects have the greatest CH interface exposure. In 2023, these areas met their obligations incorporating and following risk procedures, including engagement of CH specialists and First Nations parties (where required) as part of works planning. Embedding of the CHGF in the Network business was supported by a two-week roadshow in June 2022 that covered all depots. A Network-focused CH assurance program has also been designed and implemented. This program has not identified any matters of concern, although we have taken the opportunity to improve clarity around some processes in the CHGF.

Inclusion

We acknowledge and respect the Traditional Owners of the land and the communities where our operations are based. As a company with a large national footprint, we can contribute positively to our nation's reconciliation efforts. We have continued our reconciliation journey in FY2023, achieving several significant commitments, including:

- embedding the second Stretch Reconciliation Action Plan (RAP), which is our third RAP since 2015
- continuing our partnerships with Clontarf and Career Trackers, which has resulted in two Clontarf graduates securing apprenticeship positions
- unveiling the Indigenous artwork, designed by a member of the Indigenous Reference Group, on some of the Aurizon locomotives
- launching the inaugural First Nations study bursary
- continuing our commitment to understanding the purpose and significance behind cultural protocols, which included our Executive Committee completing the Acknowledge This! training
- increasing Indigenous spend by around 300% through the introduction of a First Nations Supplier Forum
- extending the Indigenous Future Leaders Program, providing a Certificate IV in Leadership and Management
- welcoming a new Indigenous Reference Group Executive Co-Chair and members.

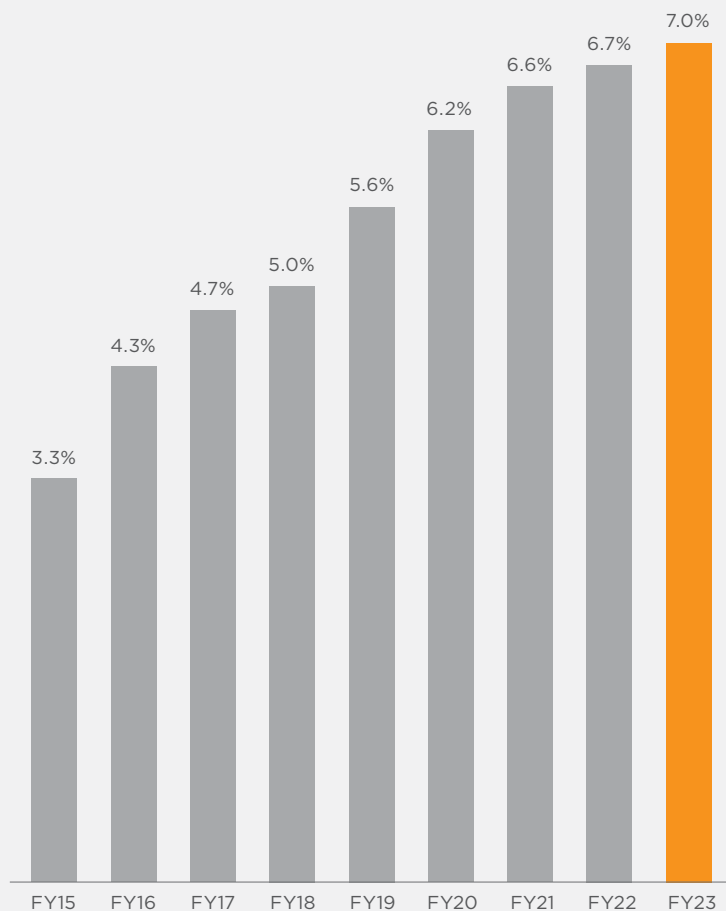
Continued focus on gender balance

In FY2021, we launched Aurizon's first Gender Balance Action Plan to continue to drive change across our business and increase female participation in our workforce. Throughout FY2023, we have made strong progress on delivering these initiatives. Two key highlights are:

- developing the remuneration standard to support greater awareness and transparency of remuneration processes
- increasing representation of women in senior roles, with the appointment of two females into Group Executive positions through our internal succession process.

The Executive-Led Mentoring Program has been continued for a third iteration and was offered to an additional 28 participants, taking the total participants to over 100. This year, the nomination process was open to all employees to ensure greater inclusion across our business.

FIGURE 29 ABORIGINAL AND TORRES STRAIT ISLANDER WORKFORCE REPRESENTATION (%)



We continue to reduce our gender pay gap, with the base pay gap dropping from 4.12% in 2022 to 1.71% in 2023 (figure 30). Over the same reporting period, the total remuneration gap reduced from 8.66% to 6.54%. In part, this can be attributed to the shift in workforce composition due to our acquisitions, our data-driven approach to talent, coupled with our focus on mentoring and development to support the promotion of women. While we compare favourably to the national and industry total remuneration averages of 22.8% and 19.7%, respectively, the gap still exists and there is more we can do to close it. Throughout FY2024, we will continue our focus on developing our high-performing women into leadership roles across the business.

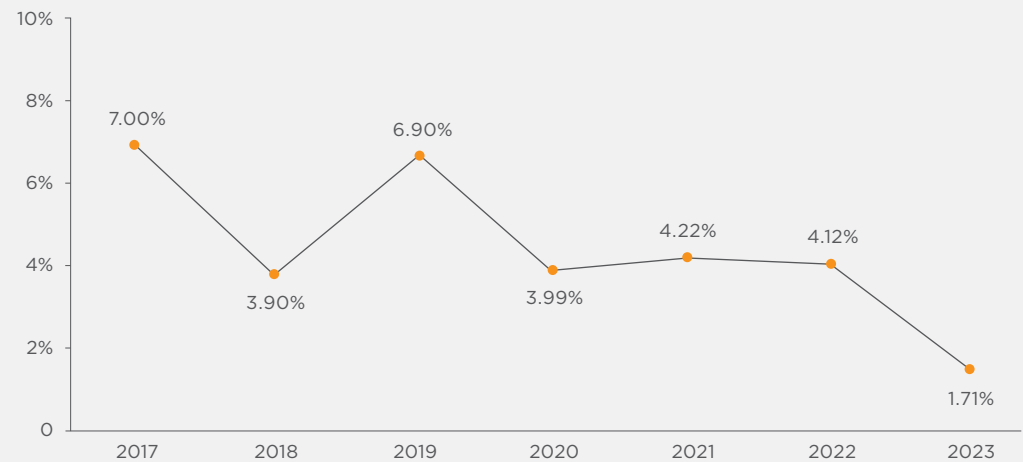
Our current female representation is 21.3% (figure 31), which falls short of this year's target of 24%. This can be attributed to the shift in workforce composition due to the acquisition of our Aurizon Bulk Central business, which has female representation of 4.5%. We are confident we will progress and embed our gender balance initiatives in the newer parts of our business over the coming years.

As a company with a large national footprint, we can contribute positively to our nation's reconciliation efforts.

We are confident we will progress and embed our gender balance initiatives in the newer parts of our business over the coming years.

FIGURE 30 GENDER PAY GAP⁹⁴

Base Remuneration Gap



Total Remuneration Gap

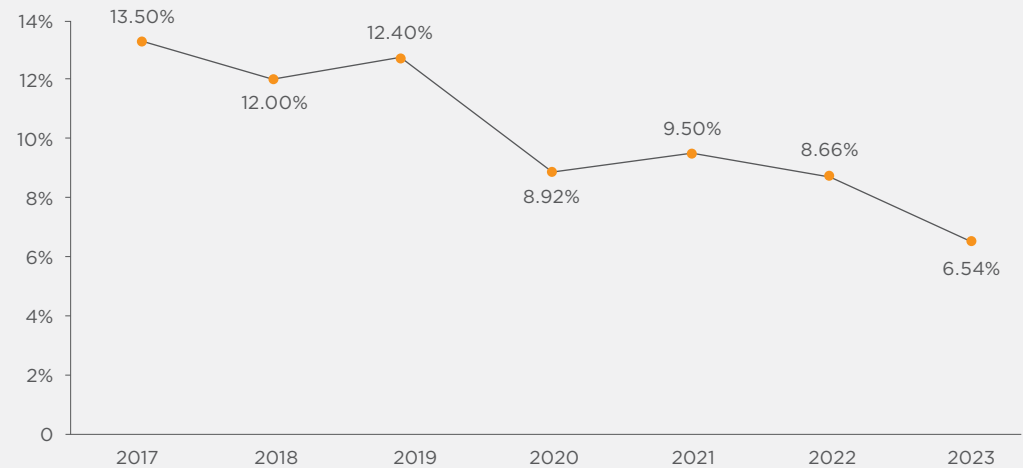
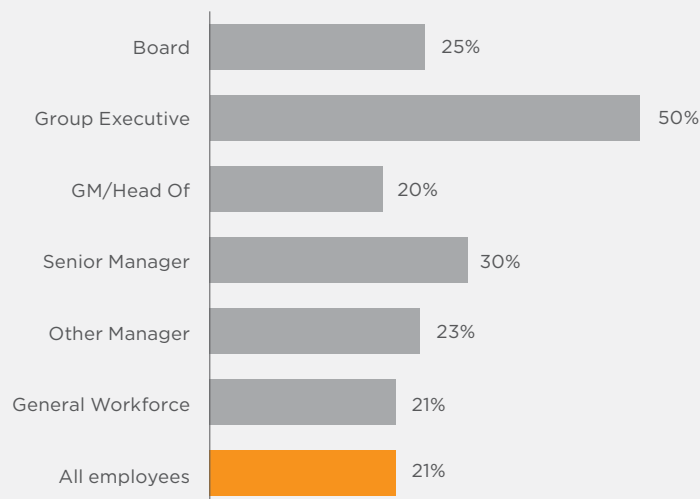


FIGURE 31 FEMALE WORKFORCE REPRESENTATION⁹⁵



⁹⁴ Workplace Gender Equality Agency (WGEA) reporting period is from 1 April (the previous year) to 31 March (the current year). Aurizon's gender pay gap data analyses base and total remuneration for each employee, excluding the Managing Director and CEO. Employee earnings are annualised and converted to full-time equivalent.

⁹⁵ Board, Group Executive and GM/Head of representation as at 30 June; all other representation figures are aligned to WGEA reporting period.

COMMITMENT TO LGBTQIA+ NETWORK, ALLIN

Our grassroots ALLin network was formed in 2015 to support our lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual (LGBTQIA+) community, within Aurizon's Inclusion Strategy. Since then, ALLin has played a key role in helping to create a more inclusive workplace where we can all feel comfortable to bring our whole selves to work.

Throughout the year, we continued to hold events for key inclusion days, such as International Day Against Homophobia, Biphobia, Intersexism and Transphobia (IDAHOBIT) and Wear It Purple. ALLin has also focused on expanding the network to new and growing parts of the business and on developing relationships with external organisations in regional areas where we operate. During FY2023, we launched our first ALLin three-year Action Plan titled Advancing LGBTQIA+ inclusion at Aurizon.

The Action Plan outlines our commitment to creating a more inclusive workplace at Aurizon for employees, and friends, family and colleagues of those who identify as LGBTQIA+. The ALLin Action Plan focuses on the three key pillars of the ALLin Network:

Visibility

...of LGBTQIA+ issues and contribute to an inclusive and diverse workplace through:

- celebrating key events and days of significance
- expanding the resources available to promote LGBTQIA+ inclusion
- participating in Australian Workplace Equality Index (AWEI) survey and use feedback as an input to identify priority actions
- reviewing people processes and systems to make them more inclusive and ensure policies are in line with leading industry inclusion practices

Education

...of leaders and employees about their role in creating an inclusive workplace through:

- developing a recruitment and onboarding guide to support positive experiences for people who identify as LGBTQIA+
- developing a leader guide to help navigate LGBTQIA+ issues and roll out training
- conducting targeted briefings to new and growing parts of Aurizon to educate employees about ALLin and how it supports Aurizon Inclusion Strategy

Connection

...create opportunities for connection around LGBTQIA+ issues so that people feel part of a broader network and community through:

- encouraging the role of Allies in the LGBTQIA+ community
- growing the ALLin network via internal communications and promoting sharing of LGBTQIA+-related topics
- developing relationships with external organisations with a presence in regional areas where Aurizon operates
- expanding regional events across Aurizon locations
- encouraging LGBTQIA+-focused charities to apply for Aurizon Community Giving Fund

Creating the workforce of the future

To ensure we meet the expectations of our current and future workforce, we continue to seek ways of improving the employee experience. For our non-operational people, we have embedded flexible work practices, where practical, to enable us to attract and retain talent, improve productivity, and consolidate an inclusive and supportive culture. For our operational workforce, we are actively seeking ways to provide flexibility through a review of our rostering processes. Given the type of work we do, this is a challenge; however, we know that flexibility and work-life balance are important to our people. We also recognise the importance of collaborating in person and encourage our teams to do this regularly.

During FY2023, we refreshed our Strategic Workforce Planning Initiative to ensure Aurizon proactively prepares for changes that may affect the workforce and future capability needs. The initiative has three key interactive horizons:

- Tactical Resource Planning: mobilising frontline and operational resources to deliver reliability for our customers
- Operational Workforce Planning: extending our existing resourcing practices, making them agile to respond to growth demands and market changes in alignment with Enterprise Strategy
- Future Focus: longer term focus with the aim of positioning and preparing our workforce for the future.

From the 2022 People Insights Survey, in which our people highlighted career development as an area we can improve, we also developed and implemented a Capability Framework. It provides employees and leaders with information and resources so they can identify, reflect and act on development opportunities. The framework identifies five key behavioural capabilities (or non-technical skills) required for each functional area of our business.

Our employee relations strategy is focused on helping achieve our Strategy in Action and aligning it with our Company values.

It also outlines the key capabilities required for each level of leadership, from emerging leaders through to the executive leadership. Using this information, employees will be able to tailor their individual development plans to focus on the capabilities where there is a measurable gap. It can also be used to guide the succession process because it can identify career opportunities for employees to gain or strengthen a particular capability need.

Employee relations

Our employee relations strategy is focused on helping achieve our Strategy in Action and aligning it with our Company values. Aurizon supports freedom of association and the effective recognition of the right to collective bargaining. We recognise that fostering trust with our people is a key enabler of a safety and high-performance culture that will underpin

our approach to enterprise bargaining. Over the past 12 months, we have collaboratively renewed four enterprise agreements across WA, SA and QLD, which represented over 2,400 employees (40% of our workforce). Other agreements are currently being negotiated with employees and their representatives in NSW, SA and QLD.

Amendments have also been made to strengthen our People due diligence and post-completion processes for acquisitions. Our processes have been extended to include a more comprehensive review of pay and employment conditions to ensure we have effective governance and controls of these conditions. This is to ensure employees are paid consistent with their terms and conditions of employment and underpinning awards and national employment standards.

EMPLOYEE VALUE PROPOSITION

The Aurizon Employee Value Proposition (EVP) 'Delivering opportunities to take your career and your community further' was launched in 2023. Our EVP helps to reinforce the benefits and promising future we can offer our employees, and to strengthen our ability to grow awareness of Aurizon and attract people to our organisation. Our EVP shares our commitment to current and future employees and the five core strengths (pillars) we offer as an employer. It also outlines the benefits and employment experience unique to Aurizon for people looking to join our Company. We have also developed an Employer Brand 'Look to Aurizon', which aligns with our EVP and is used externally to encourage people to join our Company. Our EVP aligns with our values and has been informed by employees from across the business through a series of workshops, focus groups and interviews,

as well as through our 2022 People Insights Survey. Feedback from employees demonstrated the pride people take in working for our business and highlighted the key reasons why people join and stay with Aurizon. These reasons are reflected in our EVP pillars and include Aurizon's:

- investment in our people with a range of job-specific benefits and job opportunities
- opportunities for career development and ongoing training and education
- diverse and inclusive environment where everyone can be themselves and where safety is paramount
- investment in growing our business, our local communities and the economy
- focus on sustainability and innovation to take our business into the future.

Community

Our people are part of our communities, with more than 86% of employees living and working in regional locations around Australia.

Aurizon is proud to be a local employer across many regional locations throughout the country, and believe we have a vital role to play contributing to the ongoing growth of our regional communities.

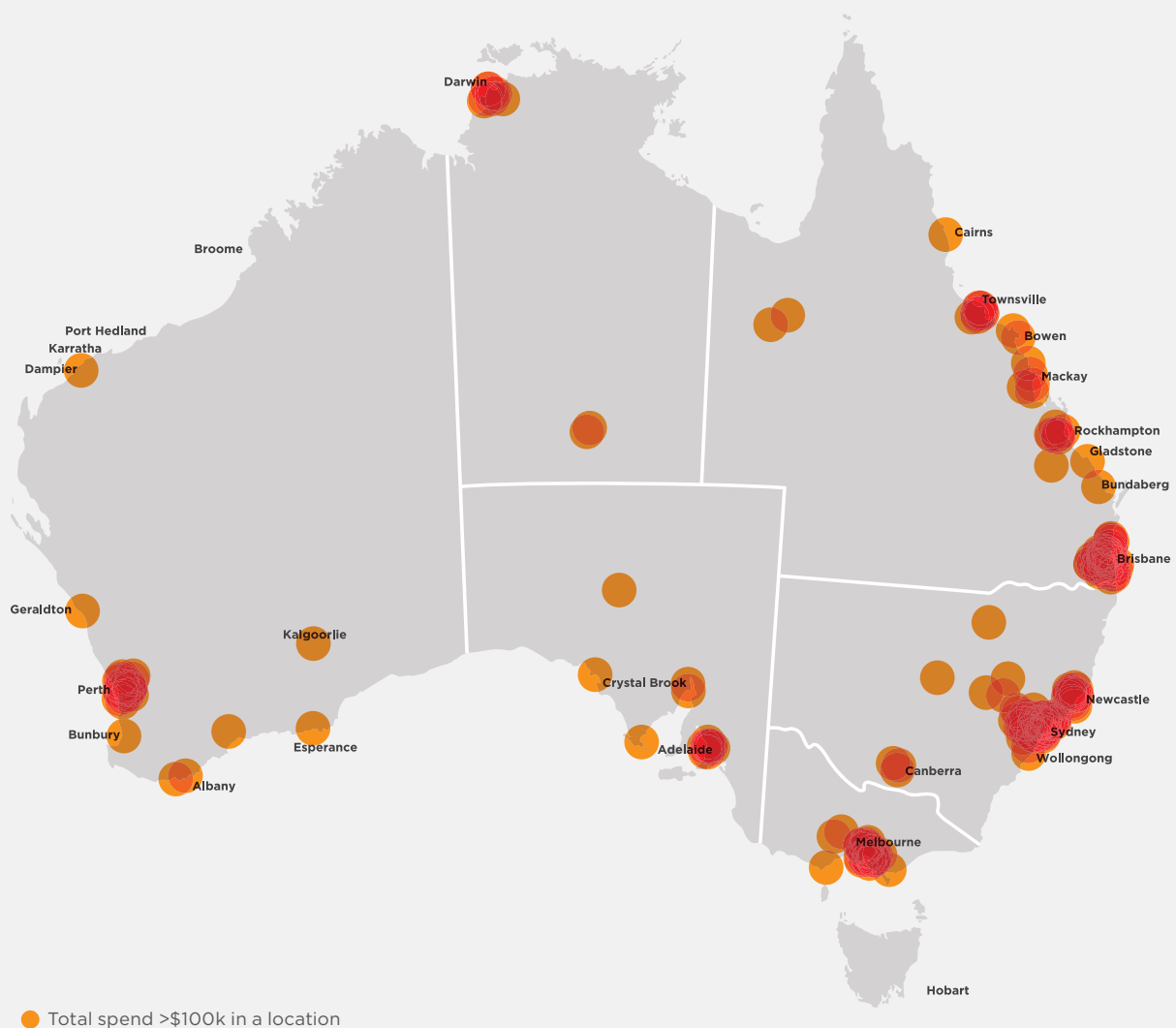
Growing regional Australia

With over 5,700 employees spread across mainland Australia, Aurizon and our people understand that we are an integral part of the communities in which we live and work.

Aurizon has invested in facilities and infrastructure across regional Australia to ensure our people are able to safely deliver for our customers every day.

This investment is another way we support our local communities, engaging local suppliers to deliver products and services to ensure that as we grow in a location, so do the associated businesses and suppliers around us.

FIGURE 32 AURIZON'S REGIONAL SPEND (FY2023)



Spending in our communities

We have spent approximately \$1.7 billion with suppliers across Australia in FY2023 (figure 32). Local suppliers continue to be a key part of our supply chain, and we look forward to growing this representation across our operations.

As part of the commitments made in our RAP, we are looking to increase spending with Indigenous businesses. In November 2022, Aurizon invited Aboriginal and Torres Strait Islander businesses from across Australia to participate in a virtual townhall to hear more about our business, our procurement opportunities, and how to become a part of our procurement process.

These events, coupled with our continuing membership with Supply Nation, will give our teams access to verified Indigenous suppliers from across our operations. With our expansion into the NT and SA, we understand the key role we can play engaging with local businesses and suppliers, especially Indigenous suppliers, and look forward to welcoming many new suppliers on board with us.



The University of Newcastle, one of the recent Community Giving Fund recipients received a grant for the Our Place project.

Community investment and sponsorship support

At Aurizon, we seek opportunities to make a difference in the communities we live and work in. We invest in and sponsor initiatives that align to our values and our strategy, and seek outcomes that will support the growth and development of our communities.

Aurizon Community Giving Fund

The Aurizon Community Giving Fund is our primary community investment vehicle. Since 2011, the Fund has been supporting charities from across our areas of operation, with grants of up to \$20,000 for projects and programs that deliver benefits to the people who live and work in our local communities. Since launch, the fund has supported over 570 charities, and in FY2023 we were proud to extend this support to organisations from both the NT and SA as part of our expansion into these states after acquiring One Rail Australia.

Some examples of projects we funded include:

T for Thomas – Stomp Out Sepsis in the NT

The Stomp Out Sepsis in the NT program will be delivered at festivals and key events across the NT through 2023 and the start of 2024. This program is designed to increase awareness of sepsis and help to reduce sepsis-related death and harm.

SA Sea Rescue – Marine Safety Communication Training Aid, SA

The South Australia Sea Rescue Squadron will develop a digital aid to provide the most realistic training to members of the boating public, surf lifesaving, and volunteer marine rescue personnel.

University of Newcastle – Our Place, Hunter Valley, NSW

The University of Newcastle's School of Architecture and Built Environment and the Maitland Regional Art Gallery came together to co-design the Our Place project with First Nations students from six local schools. Funding from Aurizon will now go towards building this imaginative public space.



In FY2023, Aurizon employees raised over \$12,500 during Orange Sky's Sudsy Challenge initiative.

Sponsorship

Orange Sky Australia

Orange Sky is the world's first free mobile laundry service for vulnerable members of our communities experiencing homelessness. In FY2023, Aurizon employees raised over \$12,500 during Orange Sky's Sudsy Challenge initiative; all money raised helps Orange Sky continue to provide clean clothes, hot showers, and non-judgemental conversations to their friends experiencing hardships.

Queensland Firebirds

Aurizon is a proud Principal Partner of the Queensland Firebirds competing in the national level elite netball competition. The relationship between Aurizon and the Firebirds continues to grow, with Aurizon supporting community clinics and other events in regional Queensland in 2023. We look forward to continuing to grow our relationship with the Firebirds and Netball Queensland with the recent signing of a new three-year agreement.

Clontarf Foundation

Aurizon is proud to have been a partner of the Clontarf Foundation since 2015, supporting their goal to improve the education, discipline, life skills, self-esteem, and employment prospects of young Aboriginal and Torres Strait Islander men. Aurizon teams across Australia have engaged with local Clontarf academies at local employment events, hosted academies to site visits across our operational footprint, and participated in mentoring support locally.

The WattleNest

In FY2023, Aurizon is proud to have launched a foundation partnership with the WattleNest, an organisation set up to celebrate, connect and financially support Australian athletes and help them achieve their goals, while inspiring us with their stories. Aurizon is committed to supporting high-performing Australian athletes through the WattleNest organisation for the next two years, as they train to compete on the national and international stage.

Working together

Our people are part of the communities in which we operate, and at Aurizon we are committed to continuing to be contributing members.

Building on our history in our communities, we will continue to collaborate with our communities in the following ways:

- living by our safety value, 'we know safe, we choose safe', and understanding that everyone who has contact with our teams or our sites knows that safety is now and will always be our number one priority (more information in our Safety and health chapter)
- regularly engaging with and building relationships with our existing stakeholders
- upholding all legislative, regulatory, and corporate responsibility obligations
- engaging with local, state and federal governments and departments, and advocating on behalf of our regional communities and the work we do in them
- building upon existing relationships with our partners in support of their objectives, and continuing to grow and build support in our local communities through initiatives such as our Community Giving Fund.

We encourage members of our communities to contact us directly with any feedback or information through our feedback channels listed on our website.



Tax at Aurizon

As an ASX-listed company predominantly operating in Australia, and as an industry leader, we understand the importance of tax transparency.

We continue to have a positive, open and constructive relationship with the Australian Tax Office (ATO), and continue to voluntarily adopt the Tax Transparency Code, demonstrating our commitment to paying our fair share of tax.

Taxes paid and collected

As we predominantly operate in Australia, we pay various taxes to federal and state governments, and collect various tax payments on behalf of federal and state governments. We also pay taxes in the overseas jurisdictions in which we operate and report our international activities under the country-by-country reporting regime.

As demonstrated in table 6, Pay As You Go Withholding (PAYG-W) taxes collected in respect of employees' salary and wages represent the largest component of taxes we collect on behalf of the Australian Government, the other being Goods and Services Tax (GST).

As also demonstrated in table 6, Australian corporate income tax represents the largest component of federal taxes we pay. Corporate income tax is payable in instalments throughout the income year, with a final tax balancing payment (if required) made in December following the end of the income year. Where instalments have exceeded the income tax liability for that income year, a refund will be received following lodgement of the income tax return, which is due in January following the end of the income year.

Table 6 excludes several taxes that are considered immaterial for our business, including (but not limited to) customs duty, withholding taxes, taxes paid to foreign governments, and taxes paid by controlled Australian entities that do not form part of the Aurizon income tax consolidated group.

TABLE 6 TAXES COLLECTED AND PAID BY AURIZON

\$million (\$m)	FY2023	FY2022
PAYG Withholding Taxes	268	233
Goods and Services Tax (GST) Net of Recoveries	166	177
Corporate Income Tax ⁹⁶	39	163
Fringe Benefits Tax	1	1
Fuel Excise Paid Net of Recoveries	5	-
Federal Taxes	479	574
Payroll Tax	52	43
Other Miscellaneous Taxes ⁹⁷	31	3
State Taxes	83	46

Tax strategy, tax policy, and governance

Our tax strategy focuses on:

- providing accurate and timely tax compliance and reporting
- enhancing shareholder value through principled tax planning
- building a positive and transparent relationship with the ATO.

This strategy is implemented through our Board-approved Tax Policy and our broader Enterprise Risk Management Framework. Our Tax team has primary responsibility for implementing our tax strategy, with oversight by the Chief Financial Officer & Group Executive Strategy (CFO), the AGRMC and the Board.

Accurate and timely tax compliance and reporting

Our Tax team is responsible for identifying and complying with our tax obligations, including lodging returns and making tax payments on time. Confirmation of accurate and timely tax compliance and reporting is provided to the CFO, AGRMC and the Board. Tax compliance risks are managed through our documented tax control framework, which includes a Tax Risk and Controls Matrix (RACM) and Tax Controls Testing Program. The Tax RACM sets out in detail Aurizon's tax control environment across governance, significant transactions, income tax returns, tax effect accounting, fixed assets, fringe benefits tax and GST. Inherent and mitigated tax risk ratings in the RACM are aligned with the Aurizon Enterprise Risk Management framework.

Enhancing shareholder value through principled tax planning

Our tax strategy aims to enhance shareholder value through principled tax planning. Broadly, principled tax planning includes:

- ensuring operations, transactions and funding are tax efficient
- utilising tax concessions, where available
- ensuring we make appropriate tax elections when given a choice under the tax law
- ensuring tax positions adopted by our business are in accordance with parliamentary intention and guidance provided by the revenue authorities.

Our Tax Policy prohibits conducting transactions for the specific purpose of obtaining a tax benefit. Our Tax team collaborates with our business units to identify and mitigate any tax risks.

Tax positions adopted by our business are considered by our in-house qualified tax professionals, with material positions verified by external independent advice.

96 The corporate income tax figure reflects the income tax payable position for FY2023, as well as any prior year adjustments to tax payable/(receivable). It is not reflective of cash tax paid during FY2023.

97 Other Miscellaneous Taxes paid in FY2023 includes landholder duty paid to the Northern Territory Revenue Office of \$28m in connection with the acquisition of Aurizon Bulk Central.

Income tax

The following information has been derived from the FY2023 annual financial report. Our financial report reflects our Australian corporate income tax position (applying the 30% corporate tax rate). Any income tax attributable to overseas operations is negligible.

Australian tax law and Australian accounting standards have different rules in respect of the timing of recognition of income and expenses. Under the accounting standards, differences between accounting and tax rules are classified as:

- temporary differences – which reverse over time
- non-temporary differences – which are permanent differences that do not reverse over time, or temporary differences that do not meet the recognition criteria under the accounting standards.

The accounting standards require us to calculate income tax expense, which includes a current tax component and a deferred tax component. The current tax component represents the expected tax liability for the income year. The deferred tax component represents taxes to be paid, or deductions available in future income years.

The deferred tax component is recognised as a net deferred tax asset (future deductions available) or a net deferred tax liability (future tax payable) on the balance sheet.

Reconciliation of accounting profit to income tax payable

Table 7 provides a reconciliation of our accounting profit before tax to income tax expense and income tax payable. Income tax expense is calculated as the accounting profit before tax, multiplied by the applicable tax rate, and adjusted for non-temporary differences.

Income tax payable is calculated as the accounting profit before tax, multiplied by the applicable tax rate, and adjusted for non-temporary and temporary differences.

The key adjustment in our tax calculation is for temporary differences arising from the different accounting and tax treatment of fixed asset-related costs. This is because we are a capital-intensive business, with a significant portion of our asset base comprised of property, plant and equipment.

TABLE 7 RECONCILIATION OF ACCOUNTING PROFIT TO INCOME TAX PAYABLE

(\$m)	FY2023	FY2022
Current Tax	47	180
Deferred Tax	102	43
Current tax relating to prior periods	(8)	(16)
Deferred tax relating to prior periods	12	16
Total Income Tax Expense	153	223
Profit before income tax expense from continuing operations	483	736
Profit/(loss) before income tax expense from discontinued operations	(54)	-
Statutory PBT	429	736
Tax at Australian Tax Rate of 30%	129	221
Tax effect of amounts that are not deductible (taxable) in calculating taxable income:		
Non-deductible acquisition costs	9	2
Non-deductible sale and divestment costs	4	-
Non recognition of capital loss on impairment	5	-
Other	2	-
Adjustments for tax of prior periods	4	-
Income Tax Expense	153	223
Temporary Differences		
Property, Plant and Equipment	(90)	(48)
Provisions/Accruals	(1)	12
Other	(15)	(7)
Current Income Tax Payable	47	180

TABLE 8 AURIZON'S EFFECTIVE INCOME TAX RATE
(CONTINUING AND DISCONTINUING OPERATIONS)

(\$m)	FY2023	FY2022
Profit from Continuing Operations Before Tax (PBT)	483	736
Profit from discontinued operations	(54)	-
Statutory PBT	429	736
Statutory Income Tax Expense	153	223
Statutory Effective tax rate (%)	35.7	30.3
Continuing Operations Income Tax Expense	159	223
Continuing Operations Effective tax rate (%)	32.9	30.3

Effective income tax rate

The Australian accounting standards define 'effective tax rate' as the income tax expense for the income year, divided by the accounting profit before tax. Our effective income tax rate is outlined in table 8.

Our effective tax rate for FY2023 of 35.7% is more than the 30% Australian corporate tax rate. This is primarily due to non-deductible transaction costs for both the purchase and sale of companies.



Sustainability metrics

Financial Results (Underlying and continuing basis)	Unit	FY2023	FY2022
Total Revenue	\$million (\$m)	3,511	3,075
EBITDA	\$m	1,428	1,467
EBIT	\$m	762	875
Income Tax (expense)/benefit	\$m	(165)	(225)
NPAT	\$m	367	525
Earnings per share ⁹⁸	cents per share	19.9	28.5
Return on invested capital (ROIC) ⁹⁹	%	7.5	10.3
EBITDA margin	%	40.7	47.7

Operating metrics	Unit	FY2023	FY2022
Coal haulage (tonnes)	million	185.0	194.0
Bulk haulage (tonnes)	million	68.2	50.8
Network (tonnes)	million	207.6	206.5
Coal Net Tonne Kilometres (NTKs)	billion	42.2	45.2
Network NTKs	billion	50.4	51.9

Safety	Unit	FY2023	FY2022
Total Recordable Injury Frequency Rate	TRIFR	8.36	8.51
Serious Injury and Fatality Frequency Rate	SIFR(a+p)	1.92	4.41

Community	Unit	FY2023	FY2022
Total estimated spend with suppliers	\$b	1.7	1.2
Taxes collected and paid ¹⁰⁰	\$m	294	387
Number of supported charities	#	69	43

People	Unit	FY2023	FY2022
Full-time equivalent employees	#	5,618	4,917
Wages and benefits paid	\$m	977	854
Regional workforce representation	%	86	85
Inclusion and diversity			
Aboriginal and Torres Strait Islander workforce representation	%	7.0	6.7
Female workforce representation	%	21	23
Female appointees into manager roles ¹⁰¹	%	31	31
Female promotions ¹⁰²	%	32	34
Parental leave uptake ¹⁰³	#	Managers: 25	Managers: 30
Parental leave uptake	#	Non-managers: 159	Non-managers: 206
Females in senior leadership roles	Unit	FY2023	FY2022
Board	%	25	38
Senior executive leadership team ¹⁰⁴	%	50	20
Executive leadership team ¹⁰⁵	%	28	24
General managers ¹⁰⁶	%	20	27
Senior leadership team ¹⁰⁷	%	36	35

98 Calculated on weighted average number of shares on issue.

99 ROIC is defined as underlying rolling 12-month EBIT divided by the average invested capital. The average invested capital is calculated as the rolling 12-month average of net assets (excluding cash, borrowings, tax, derivative financial assets and liabilities).

100 Excludes PAYG income taxes included in wages and benefits paid.

101 Data from annual WGEA report, reporting period of 1 April (the previous year) to 31 March (the current year).

102 Data from annual WGEA report, reporting period of 1 April (the previous year) to 31 March (the current year).

103 Data from annual WGEA report, reporting period of 1 April (the previous year) to 31 March (the current year).

104 Group Executives reporting to Managing Director and CEO.

105 Includes Group Executives and direct reports to Group Executives. Excludes executive/administrative support.

106 Includes General Manager or Head of position titles only.

107 Direct reports to Head of/General Manager.

Environment	Unit	FY2023	FY2022
Emissions			
Total GHG emissions (Scope 1 and 2)¹⁰⁸	Metric tonnes of CO₂-e	876,353	834,848
Direct GHG emissions (Scope 1)	Metric tonnes of CO₂-e	591,216	506,806
Diesel locomotives	Metric tonnes of CO ₂ -e	554,335	478,079
Road vehicles	Metric tonnes of CO ₂ -e	10,789	18,023
Incidental fuel emissions	Metric tonnes of CO ₂ -e	26,092	10,704
Total Indirect GHG emissions (Scope 2) (Location-based)	Metric tonnes of CO₂-e	285,137	328,042
Electric locomotives	Metric tonnes of CO ₂ -e	265,229	305,282
Facilities (electricity purchased)	Metric tonnes of CO ₂ -e	19,908	22,760
Total Indirect GHG emissions (Scope 2)¹⁰⁹ (Market-based)	Metric tonnes of CO₂-e	304,703	299,801
Total indirect GHG emissions (Scope 3)¹¹⁰	Metric tonnes of CO₂-e	304,710	178,340
Purchased goods and services ¹¹¹	Metric tonnes of CO ₂ -e	95,289	99,183
Fuel- and energy-related activities ¹¹²	Metric tonnes of CO ₂ -e	203,700	74,707
Waste-generated	Metric tonnes of CO ₂ -e	2,653	3,308
Business travel ¹¹³	Metric tonnes of CO ₂ -e	3,068	1,142
Targets (Operational Emissions Intensity)			
Measure (Operational GHG emissions intensity)	Kilograms of CO ₂ -e/'000 NTK	13.87	13.96
Operational GHG emissions intensity target ¹¹⁴	% of progress towards target	-2.1%	-2.8%
Energy			
Total direct and indirect energy consumed within the organisation	Megawatt hours	2,731,520	2,412,998
Total direct energy consumed	Megawatt hours	2,338,589	2,002,311
Diesel (used for locomotives)	Megawatt hours	2,187,237	1,886,361
Diesel (other)	Megawatt hours	140,621	109,088
Natural gas	Megawatt hours	3	0
Other fuels (propane, gasoline, kerosene, stove oil, furnace oil)	Megawatt hours	10,728	6,861
Total indirect energy consumed – electricity ¹¹⁵	Megawatt hours	392,931	410,686

Energy intensity	Megawatt hours per million AUD of rail freight revenue	1,234	1,080
Fuel efficiency	NTK per '000 litres of fuel consumed	290,668	320,296
Effluents and waste¹¹⁶			
Total weight of waste generated (excl. ballast/bulk metals)	Metric tonnes	28,188	15,659
Total hazardous waste generated	Metric tonnes	2,916	1,895
Metals ¹¹⁷	Metric tonnes	11,061	12,263
Ballast (aggregate)	Metric tonnes	223,940	267,792
Disposal methods			
Landfill (excl. hazardous and ballast)	Metric tonnes	2,252	2,131
Incinerated/treated/landfilled (hazardous)	Metric tonnes	1,397	1,580
Recycled (excl. ballast and bulk metals)	Metric tonnes	23,788	11,855
Recycled (bulk metals)	Metric tonnes	11,061	12,263
Recycled (ballast)	Metric tonnes	223,940	230,902
Water			
Water consumption	Million litres	284	158

108 Aurizon's Scope 1 and Scope 2 emissions are reported in accordance with the NGER legislation.

109 Aurizon's Scope 2 (market-based) emissions are reported in accordance with the Australian Government's Corporate Emissions Reduction Transparency Report Guidelines.

110 Aurizon uses an internal basis of preparation to outline our Scope 3 reporting boundary and calculation methodology for relevant emissions categories. Our Scope 3 reporting boundary currently includes the following categories: purchased goods and services (limited to approximately 20% of total spend), fuel and energy-related activities, waste generated and business travel (excluding car hire). Aurizon has utilised the GHG Protocol Quantis Scope 3 Evaluator tool (Quantis tool) to estimate emissions from purchased goods and services. The Quantis tool has been discontinued and Aurizon will consider alternative tools to support its Scope 3 emissions reporting for FY2024. Categories affected by the recalculation of Aurizon's FY2022 Scope 3 emissions include: purchased goods and services (paper emissions are excluded and considered immaterial due to our expanded spend-based emissions estimate), business travel (car hire has been excluded due to insufficient data to support a suitable calculation methodology) and employee commuting (employee travel emissions are excluded due to insufficient data to support a suitable calculation methodology).

111 Spend data for purchased goods and services is broken down according to Aurizon's internal procurement categories and allocated to the most appropriate product group category available within the Quantis tool. The corresponding emission factors from the Quantis tool are then applied to calculate an overall GHG emissions estimate for this category. Estimated Scope 3 emissions from Aurizon's purchased goods and services is currently limited to approximately 20% of total spend due to difficulties in accurately assigning the remaining spend (approximately 80%) to an appropriate Quantis tool product group. Aurizon expects the percentage of total expenditure included in our spend-based emissions estimate to increase over time as procurement reporting and calculation methodologies evolve. Spend categories included in Aurizon's purchased goods and services emissions estimate include: ballast and quarry products, dry hire, hardware, machine plant and equipment, masts and portals, purchased locomotives, sleepers and bearers, spares, rotatables and consumables, steel rail, track machines and spares. Spend on regulatory fees and taxes is excluded from this category. Current procurement reporting processes make it difficult to separate purchases associated with capital goods from the purchase of goods and services more generally. Therefore, where spend associated with the purchase of capital goods is captured by our limited spend-based calculation, emissions from the procurement of capital goods will be reported under the purchased goods and services category.

112 An increase in Aurizon's Scope 3 emissions from fuel-and energy-related activities is the result of a material increase in Australia Government emissions factors between FY2021 and FY2022 (2022 Australian National Greenhouse Accounts Factors Workbook, Australian Government Department of Climate Change, Energy, the Environment and Water).

113 Aurizon's business flight emissions are estimated by a third-party corporate travel provider. Emissions are estimated using the United Kingdom Department for Energy Security and Net Zero and Department for Business, Energy and Industrial Strategy emission factors. Aurizon will review this methodology and update the emission factors to be used in future reporting periods. Emissions from car hire are currently excluded due to insufficient data to support a suitable calculation methodology.

114 Emissions intensity reduction target of 10% by 2030, from a 2021 baseline (on a basis of tonnes of carbon dioxide per net tonnes kilometre). See footnote 4.

115 Additional energy consumption associated with diesel-electric locomotive energy production (i.e. the diesel-electric energy generated and then consumed) is excluded from this calculation. This is consistent with previous reporting periods.

116 Effluent and waste data reported is limited to materials processed by Aurizon's primary waste contractors. All effluent and waste data is collated and reported by the Aurizon disposals team. Our current reporting methodology does not capture all material flows. For example, re-used materials (such as ballast spoil that is screened and re-used within our operational sites) are not always processed, and therefore reported by our waste contractors. This report may exclude effluent and waste data associated with small, remote or temporary operational sites.

117 The amount of metal reported as recycled in FY2022 (42,051 tonnes) was incorrect due to an error in a third-party waste report. Metal recycled in FY2022 should have been reported as 12,263 tonnes, which has been corrected in this report.

Statement of limited assurance



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Independent Limited Assurance Report to the directors of Aurizon Holdings Limited

Conclusion

We have undertaken a limited assurance engagement on selected sustainability performance indicators included in Aurizon Holdings Limited's ('Aurizon') 2023 Sustainability Report for the periods covering 1 July 2022 to 30 June 2023 (FY23) and 1 July 2021 to 30 June 2022 (FY22).

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Sustainability Performance Indicators presented below ('Subject Matter Information') have not been prepared, in all material respects, in accordance with the applicable Reporting Criteria defined below, for the respective periods.

Selected Sustainability Performance Indicators ('Subject Matter Information')	Reporting Criteria
FY23 Metrics assured	
Total Scope 1 and 2 GHG emissions (tCO ₂ -e)	The National Greenhouse and Energy Reporting Act 2007 ('NGER Act'), the National Greenhouse and Energy Reporting Regulations 2008 ('NGER Regulations') and the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (collectively referred to as the 'NGER Legislation')
Total energy consumption (GJ)	NGER Legislation
Disclosures relating to the basis of selection of reporting boundary and identification of activity sources relevant to the calculation of Aurizon's Scope 3 emissions categories.	The Greenhouse Gas ('GHG') Protocol Corporate Value Chain (Scope 3) Standard
Scope 3 GHG emissions (tCO ₂ -e), which are comprised of:	
- Purchased goods and services (including capital goods) - Fuel and energy related activities - Business travel - Waste generated in operations	Aurizon's Scope 3 Emissions Basis of Preparation
Market-based Scope 2 emissions (tCO ₂ -e)	Corporate Emissions Reduction Transparency ('CERT') Report Pilot Guidelines

Liability limited by a scheme approved under Professional Standards Legislation.
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Selected Sustainability Performance Indicators (‘Subject Matter Information’)	Reporting Criteria
Operational emission intensity figure based on 2030 emissions target (Kilograms of CO ₂ -e/’000 NTK)	NGER Legislation and Aurizon’s Emissions Intensity Basis of Preparation
FY22 Metrics assured	
Scope 3 GHG emissions (tCO ₂ -e), which are comprised of:	
• Purchased goods and services (including capital goods) • Business travel	Aurizon’s Scope 3 Emissions Basis of Preparation

Basis for Conclusion

We conducted our limited assurance engagement in accordance with Australian Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* (“ASAE 3000”), issued by the Australian Auditing and Assurance Standards Board.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Responsibilities of Aurizon

The Directors are responsible for:

- ensuring that the Subject Matter Information is prepared in accordance with the applicable Reporting Criteria;
- confirming the measurement or evaluation of the underlying subject matter against the applicable Reporting Criteria, including that all relevant matters are reflected in the Subject Matter Information;
- designing, establishing and maintaining an effective system of internal control over its operations and financial reporting, including, without limitation, systems designed to assure achievement of its control objectives and its compliance with applicable laws and regulations; and
- the electronic presentation of the Subject Matter Information and our limited assurance report on Aurizon’s website.

Our Independence and Quality Management

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, and applied Auditing Standard ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements* in undertaking this assurance engagement.

Assurance Practitioner’s Responsibilities

Our responsibility is to express a limited assurance conclusion on Aurizon Holdings Limited’s Subject Matter Information as evaluated against the applicable Reporting Criteria based on the procedures we have performed and the evidence we have obtained. ASAE 3000 requires that we plan and perform our procedures to obtain limited assurance about whether anything has come to our attention that causes us to believe that the Subject Matter Information presented in the Sustainability Report is not prepared, in all material respects, in accordance with the applicable Reporting Criteria.



A limited assurance engagement in accordance with ASAE 3000 involves identifying areas where a material misstatement of the Subject Matter Information is likely to arise, addressing the areas identified and considering the process used to prepare the Subject Matter Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion about whether the Subject Matter Information presented in the Aurizon 2023 Sustainability Report has been prepared, in all material respects, in accordance with the applicable Reporting Criteria.

Our procedures included:

- Making inquiries with Subject Matter data owners and sustainability report responsible management to understand and assess the approach for collating, calculating and reporting the respective Subject Matter Information across the reporting period.
- Making inquiries with Scope 3 Subject Matter data owners and sustainability report management to understand and assess the approach for selection of boundary and identification of relevant emission sources.
- Inspection of documents as part of the walk throughs of key systems and processes for collating, calculating and reporting the respective Subject Matter Information for the Aurizon Holdings Limited 2023 Sustainability Report.
- Selection on a sample basis items to test from the selected sustainability performance indicators and agree to relevant supporting documentation.
- Analytical reviews over material data streams to identify any material anomalies for the Subject Matter Information and investigate further where required.
- Agreeing overall data sets for the Subject Matter Information to the final data contained in the Aurizon Holdings Limited 2023 Sustainability Report.

Inherent Limitations

Because of the inherent limitations of an assurance engagement, together with the inherent limitations of any system of internal control there is an unavoidable risk that it is possible that fraud, error, or non-compliance with laws and regulations, where there has been concealment through collusion, forgery and other illegal acts may occur and not be detected, even though the engagement is properly planned and performed in accordance with Standards on Assurance Engagements.

Emissions quantification is subject to inherent uncertainty because incomplete scientific knowledge has been used to determine emissions factors and the values needed to combine emissions due to different gases.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Aurizon 2023 Sustainability Report, but does not include the Subject Matter Information. Our responsibilities do not extend to other information and we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Subject Matter Information or our knowledge obtained in the engagement, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude there is a material misstatement of this other information, we are required to report this fact. We have nothing to report in this regard.



Restricted use

The Reporting Criteria used for the assurance engagement was designed for a specific purpose of the director's reporting on Selected Sustainability Performance Indicators in the Aurizon Holdings Limited 2023 Sustainability Report. As a result, the Selected Sustainability Performance Indicators may not be suitable for another purpose.

This report has been prepared for use by the directors of Aurizon for the purpose of providing assurance over Selected Sustainability Performance Indicators included in the Aurizon Holdings Limited 2023 Sustainability Report. We disclaim any assumption of responsibility for any reliance on this report to any person other than the directors of Aurizon, or for any purpose other than that for which it was prepared.

Matters relating to electronic presentation of information

It is our understanding that Aurizon may publish a copy of our report on their website. We do not accept responsibility for the electronic presentation of our report on the Aurizon website. The security and controls over information on the website is not evaluated or addressed by the independent auditor. The examination of the controls over the electronic presentation of this Report on the Aurizon website is beyond the scope of this engagement.

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

Chi Woo

Partner

Sydney, 5 October 2023

Glossary

Some terms and abbreviations used in this document, together with industry-specific terms, have defined meanings.

These terms and abbreviations are set out in this glossary and are used throughout this document. A reference to dollars, \$ or cents in this document is a reference to Australian currency unless otherwise stated.

ACCUs

Australian Carbon Credit Units

AESS

Automatic Engine Start Stop

AGRMC

Audit, Governance and Risk Management Committee

APS

Aurizon Port Services

ASX

Australian Securities Exchange

ATO

Australian Taxation Office

AUD

Australian Dollar

Aurizon

Aurizon Holdings Limited (ABN 14 146 335 622) and, where the context requires, includes any of its subsidiaries and controlled entities

BAU

Business As Usual

BEL

Battery Electric Locomotive

BITRE

The Bureau of Infrastructure and Transport Research Economics

Board

The Board of Directors of Aurizon Holdings Limited

BF-BOF

Basic Furnace – Basic Oxygen Furnace method of steelmaking

CAGR

Compound Annual Growth Rate, expressed as a percentage per year

capex

Capital Expenditure

CCUS

Carbon capture, utilisation, and storage

CDMP

Coal Dust Management Plan

CFO

Chief Financial Officer & Group Executive Strategy

CH

Cultural Heritage

CHGF

Cultural Heritage Governance Framework

CO₂

Carbon dioxide

CO₂-e

Carbon dioxide equivalent

consist/s

Combination of rail assets, i.e. locomotives and wagons

CQCN

Central Queensland Coal Network

CSAP

Climate Strategy and Action Plan

Derailment

Derailment occurs when one or more rollingstock wheels leave the rail or track during railway operations

DRI

Direct Reduced Iron

DTMR

Queensland Department of Transport and Main Roads

EAF

Electric Arc Furnace method of steelmaking

EBIT

Earnings Before Interest and Taxes

EBITDA

Earnings Before Interest, Taxes, Depreciation and Amortisation

ESG

Environmental, Social and Governance

EVP

Employee Value Proposition

EVs

Electric vehicles

FORG

Freight on Rail Group

FTE

Full-Time Equivalent

FY

Financial Year ended 30 June,
as the context requires

GAPE

Goonyella Abbot Point Expansion

GDP

Gross Domestic Product

GHG

Greenhouse gas

IEA

International Energy Agency

kg

kilograms

kWh

kilowatt hour

L

litres

LGBTQIA+

Lesbian, Gay, Bisexual, Transgender,
Queer, Intersex or Asexual plus

Li-ion

Lithium-ion

m

million

MD & CEO

Managing Director and Chief Executive Officer

MPs

Members of Parliament

mt

millions of tonnes

MW

megawatts

Network

Aurizon Network Pty Ltd (ACN 132 181 116), a
wholly owned subsidiary of Aurizon Holdings

NPAT

Net Profit After Tax

NTK

Net Tonne Kilometre, unit of measure
representing the movement over a
distance of one kilometre of one tonne
of contents, excluding the weight of the
locomotive and wagons

OEM

Original equipment manufacturer

PCI

Pulverised Coal Injection

QCA

Queensland Competition Authority

RAP

Reconciliation Action Plan

ROIC

Return on Invested Capital

rollingstock

Equipment that provides transportation
capability on our railways, such as locomotives
and wagons

SDGs

United Nations Sustainable Development Goals

share

A fully paid ordinary share in Aurizon Holdings

SIF

Serious Injury or Fatality

SIFR(a+p)

Potential Serious Injury and Fatality Frequency
Rate measures the number of incidents that
had the potential to cause, or did cause, serious
injury or fatality. The result is expressed per
million hours worked.

SPAD

Signals Passed at Danger, reflects an instance in
which a train has entered a section of the track
without the correct authority

TCFD

Task Force on Climate-related
Financial Disclosures

TEU

Twenty-Foot-Equivalent Unit

tonne

one metric tonne, being 1,000 kilograms

tonne kilometres

the product of tonnes and distance

TRI

Total Recordable Injuries

TRIFR

The cumulative number of Lost Time Injuries,
Medical Treatment Injuries, and Restricted
Work Injuries sustained by employees and
contractors, per million hours worked, over
a given recording period

WGEA

Workplace Gender Equality Agency

Aurizon Holdings Ltd
900 Ann Street
Fortitude Valley
QLD 4006

aurizon.com.au

