

Delivering for the long haul

2017 SUSTAINABILITY REPORT





Important notice

This document may include forward-looking statements which are not historical facts. Forward-looking statements are based on the current beliefs, assumptions, expectations, estimates and projections of Aurizon. These statements are not guarantees or predictions of future performance, and involve both known and unknown risks, uncertainties and other factors, many of which are beyond Aurizon's control. As a result, actual results or developments may differ materially from those expressed in the forward-looking statements contained in this document. Aurizon is not under any obligation to update these forward-looking statements to reflect events or circumstances that arise after publication. Past performance is not an indication of future performance.

Welcome to Aurizon

Aurizon is a Top 50 ASX company with more than 5,500 employees, providing rail-based transport and infrastructure services across Australia.

Each year, Aurizon transports more than 250 million tonnes of Australian commodities, connecting miners, primary producers, and industry with international and domestic markets. Aurizon's success and future growth is linked to the global demand for Australian resources.

Our commitment to sustainability is focused on three pillars:

1. **Sustaining returns:** Building a long-term sustainable business that delivers lasting value.
2. **Managing risk:** Incorporating economic, social and environmental considerations when making decisions.
3. **Being responsible:** Taking a safe, ethical and efficient approach to the services we provide.

SUSTAINABILITY COMMITMENT SCORECARD

Commitment	Metric (s)	FY2011	FY2016	FY2017	FY2017 vs. FY2016	Aspirational Target	Target Year
Sustaining returns	Return on Invested Capital (ROIC)	4.4%	8.6%	8.7%	0.1ppt ▲	10.5% (Avg)	FY2018-FY2021
Managing risk	Notifiable environmental incidents	4 [#]	1	2	100% ▲	Zero	Ongoing
Being responsible	Total Recordable Injury Frequency Rate (TRIFR)	22.3	4.2	2.7	37% ▼	Zero	Ongoing
	Percentage of female employees	11.7%	17.4%	19.8%	2.4ppt ▲	30%	End of 2019
	Greenhouse gas emissions intensity (kgCO ₂ e/'000GTK)	9.91	8.05	8.06	0.1% ▲	7.24	FY2020

■ Improvement in metric performance ■ Decline in metric performance

[#] FY2011 data not comparable (FY2014 data shown).

OUR SUSTAINABILITY PERFORMANCE

Aurizon Holdings remains a member of the FTSE4 Good Index following the June 2017 index review.



FTSE4Good

ESG rating of AA as at 28 July 2017.



Finalist, Corporate Responsibility Reporting Awards 2017 – Creativity in Communications category.



For a full list of acronyms and definitions used throughout this Report please visit our Glossary online.

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Managing Director & CEO message

Welcome to Aurizon's 2017 Sustainability Report. This Report discusses how Aurizon delivers sustainable returns, while managing risks, and operating responsibly.



Aurizon has experienced significant changes this year. We have restructured the business, appointed new executives and pursued new opportunities. As an outcome from our Freight Review we made the decision to exit our Intermodal business due to significant losses being sustained by the business, challenging market conditions and the ability to redeploy Intermodal rollingstock into our coal business. In the Bulk business, we also reviewed underperforming haulage contracts and have initiated a minimum three-year turn-around plan to make this business profitable.

We have also seen major external challenges such as Tropical Cyclone Debbie and ongoing debate over domestic and international energy policy. From Aurizon's perspective, the increase in domestic electricity prices and uncertainty over future greenhouse gas regulation are key factors affecting our customers and industries where we operate. We will continue to engage with government and regulators to achieve an energy future which provides reliable, affordable and low emissions energy.

Aurizon has a proud history of changing to meet the needs of our customers. Since becoming CEO of Aurizon in December 2016, I have seen the potential of this business and I am confident in the capability and flexibility of our people to take us to the next level of performance.

I also acknowledge that we must have a culture that drives accountability and inclusiveness to keep improving and innovating.

Sustainability is about being future ready, so we can be prepared for disruptive trends and unforeseen events. These present both risks and opportunities to our business and the economy over the long term.

My commitment to sustainability is through a focus on three pillars: **sustaining returns** to our shareholders, **managing risk** – economic, social and environmental, and **being responsible** by operating in a safe, ethical and efficient manner.

MY COMMITMENT TO SAFETY

We must be aligned to our values each day with respect for people, behaving with integrity, focusing on our customers and striving for excellence, but upmost in my mind is attention towards our core value of safety.

While we've achieved great things in making our workplace safer, there is always room to improve. We need to maintain the momentum by looking to leading organisations throughout the world where their risks and hazards are higher and learn from them to help drive further improvements.

To date, we have benchmarked our safety performance against other operators within the rail industry. Over the years, we have driven significant changes within our business and have now surpassed the safety performance of our peers. It's now time to raise the bar and look more broadly to how we can benchmark ourselves against global leaders in safety.

I'd also like to draw attention to level crossing safety in the context of a tragic incident, involving an Aurizon Intermodal train and a non-Aurizon vehicle, at a level crossing north of Mackay in late August 2017. The driver and sole occupant of the vehicle was fatally injured in the collision.

This incident will be felt deeply by the local community, including our train drivers and employees who live and work there.

OUR SUSTAINABILITY REPORTING JOURNEY

Over the past three years, Aurizon has demonstrated a transparent and responsive approach to developing our annual Sustainability Report. Central to this is identifying emerging issues with our external stakeholders and within our business. This year, engagement included Aurizon hosting an external stakeholder advisory workshop. A number of organisations, including 350.org, UniSuper and New Hope Group provided their perspectives on our Report prior to publication.

Further progress in response to investor engagement can also be seen in our consideration of climate change. Last year, we considered the implications of different policy scenarios for thermal coal demand, which underpins approximately one quarter of our total revenues, and were recognised for our progress in assessing climate-related risks¹. This year, we have made further progress by adopting the recommendations of the Task Force on Climate-related Financial Disclosures. While we acknowledge the transition to a low-carbon economy is underway, we hold the view that high quality metallurgical and thermal coal supplied by Australia will continue to see strong demand driven by exports to Asian nations.

I welcome your feedback and invite you to send your comments on our Report to: sustainability@aurizon.com.au

ANDREW HARDING
Managing Director & CEO
Aurizon

¹Citi Research, Understanding Climate Risk and Resilience in Investee Companies – Scenarios, Assessment of 13 ASX100 Companies & the Role of Investors (18 April 2017)

Our Approach to Sustainability

We're committed to building a business that delivers sustainable value for our shareholders, customers, employees and the communities in which we operate.

APPROACH TO REPORTING

We have prepared this Report with reference to the Global Reporting Initiative's (GRI) Standards to provide investors with comparable information relating to environmental, social and governance (ESG) performance. Specifically, our approach takes into consideration the GRI's principles for informing report content: materiality, completeness, sustainability context and stakeholder inclusiveness. A key focus of this report is to demonstrate how we deliver sustainable returns, while managing risk and being responsible in how we operate.

MATERIALITY AND STAKEHOLDER INCLUSIVENESS

Aurizon conducts an annual materiality assessment each year to identify and confirm material priority issues through reviews of industry issues, ESG ratings, media analysis and peer reviews. This ensures our chapters reflect significant economic, environmental and social issues that may influence the assessments and decisions of stakeholders. This process includes stakeholder input so that we can proactively anticipate changing expectations rather than react to community concerns. It has driven continual iteration of our report over the past three years. Following confirmation of priorities, we assess their importance and develop report content, as follows:

1. Assess potential business impacts and importance to stakeholders. Priorities are ranked according to their potential to impact our business, based on feedback collected in senior management meetings, investor discussions and analysis of Enterprise Risk. Priorities are then ranked to determine importance to stakeholders using surveys and interviews with representative groups (see Figure 1).

2. Develop report content. Report content is designed in response to stakeholder information needs and validated through internal discussions, including the Aurizon Sustainability Steering Committee, Executive Committee and Aurizon Board.

Our stakeholders have placed stronger importance on our relationships with the community, while regulation and policy has increased in importance in terms of potential impact to business. We attribute these changes to the announced changes to our regional workforce, and the pending decision by the Queensland Competition Authority relating to Aurizon's regulated network revenue. These changes to the material priority areas are illustrated in Figure 2.

WHAT'S NEW?

Some of the new topics discussed this year include:

- Outcomes from an external stakeholder advisory workshop (see Table 1).
- Adoption of Task Force on Climate-related Financial Disclosures (TCFD) recommendations.
- Outcomes from our Freight Review and implications for our intermodal business.
- Impact of Cyclone Debbie and our response to extreme weather events.
- Aurizon's proposed Galilee Basin Rail Solution.
- Aurizon's economic contribution to regional Queensland.

FIGURE 1 — KEY STAKEHOLDERS

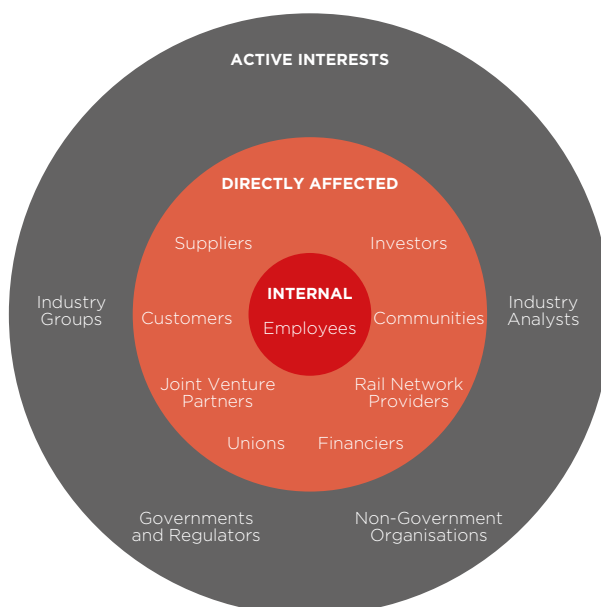


FIGURE 2 – MATERIAL PRIORITY AREAS

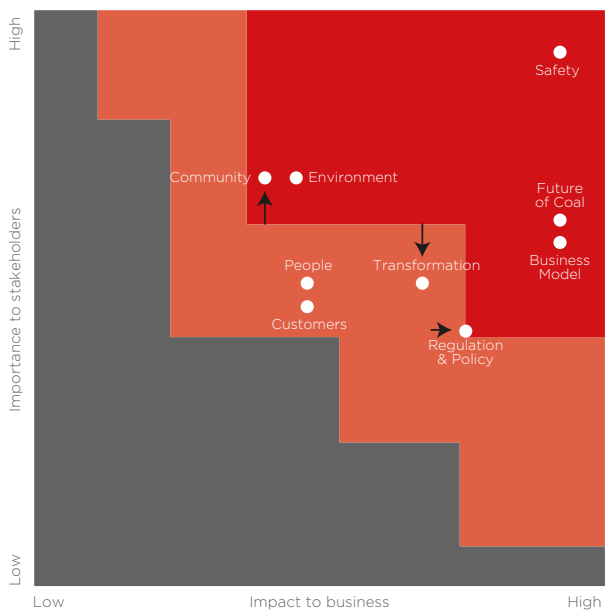


TABLE 1 – EXTERNAL STAKEHOLDER ADVISORY WORKSHOP PARTICIPANTS

ORGANISATION	STAKEHOLDER GROUP
350.ORG	Non-government organisations
MARKET FORCES	Non-government organisations
NEW HOPE GROUP	Customers
CQG CONSULTING (ROCKHAMPTON BUSINESS OWNER)	Communities
QUEENSLAND RESOURCES COUNCIL (QRC)	Industry Groups
SUNCORP	Financiers
THE ETHICS CENTRE	Non-government organisations
UNISUPER	Investors
UNIVERSITY QUEENSLAND ENERGY INITIATIVE	Industry analysts

EXTERNAL STAKEHOLDER ADVISORY WORKSHOP

Aurizon continues to seek and improve the quality of our reporting. This year, we identified the benefits of external stakeholder feedback on our reporting with the forming of an External Stakeholder Advisory Workshop facilitated by Ernst & Young. The event convened at a half-day workshop in August 2017 to provide perspectives on our draft content before we published this report.

The invited workshop participants represented a diverse knowledge and experience base, and their willingness to provide valuable and candid feedback was appreciated and valued. The participants provided wide-ranging feedback on the draft report, drawing on their prior experience with aspects such as corporate responsibility reporting, knowledge of regional Queensland, their experiences of Aurizon as a key customer, and expectations for social, environmental, and governance disclosures.

The Stakeholder Workshop identified a number of key themes:

- Aurizon’s reporting has improved markedly in recent years, and disclosures are transparent and address key aspects important to its stakeholders.
- The inclusion this year of disclosures aligned to the Financial Stability Board’s Task-Force on Climate-Related Financial Disclosures (TCFD) were acknowledged and welcomed.

- Improvements were suggested for the weighting of governance, climate change and community aspects, particularly the consequences of Aurizon’s decisions on regional employment and the subsequent impacts on businesses and communities.
- Stakeholders suggested use of more historical performance data across environmental and social aspects would help the reader to understand the context of Aurizon’s improvement.
- In future years, it was hoped that material aspects reported in the Sustainability Report could be further integrated into Aurizon’s annual financial reporting.

This process not only helped Aurizon to obtain feedback to enhance the quality of the report before publication, but also showed how valuable stakeholder insights can be in improving Aurizon’s sustainability governance on an on-going basis.

Aurizon acknowledges there is room to continuously improve this process. Based on this experience, Aurizon will consider using an external stakeholder advisory panel in the future to challenge the company’s thinking on sustainability matters.

We appreciate the time and effort our stakeholders took to review and provide comment.



Aurizon has demonstrated a genuine commitment to continual improvement through its initiative to invite external stakeholders to provide commentary on its comprehensive Sustainability Report.



PATRICE BROWN
CQG Consulting
(Rockhampton business owner)



Aurizon does a great job with their sustainability report. Industry commends Aurizon’s commitment to improving transparency year-on-year.



ANDREW BARGER
Queensland Resources Council

Governance, Risk & Strategic Planning

The Board is ultimately responsible for risk management, which considers a wide range of social, environmental and economic risks within our strategic planning.

GOVERNANCE

Board

The involvement of the Aurizon Board is central to our approach to sustainability. Each year we present the material sustainability priorities that were identified through stakeholder engagement to our Board. We then identify how these topics are covered in our Report, which is approved by the Board prior to release.



I have every confidence in Aurizon's continued operational and financial resilience. We continue to assess risks that affect Aurizon's business and support the MD & CEO in making significant decisions that affect Aurizon's strategic direction. Through this change, the Board protects the interests of shareholders and is mindful that Aurizon plays a positive and responsible role in the communities where it operates.



TIM POOLE
Chairman

Sustainability Steering Committee

Aurizon's Sustainability Steering Committee meets quarterly to provide strategic direction in relation to sustainability and support external ESG reporting. The Committee includes representation from human resources, operations, customer, community, environment, safety, policy, risk and investor relations.

Safety, Health and Environmental Management

Aurizon's vision and strategy for safety, health and environment are guided by the Board Safety, Health and Environment (SHE) Committee which includes several Board members, including the Board Chairman, and Managing Director & CEO. Aurizon also has a SHE central Committee that meets monthly to review performance. It is supported by working groups that are focused on specific areas, including trackside safety, road safety and derailment prevention. For more information, please visit the Governance section of our website.

RISK

Risk Management Framework

The Board recognises that a sound culture is fundamental to an effective risk management framework. Aurizon promotes a risk-aware culture in all decision-making through the application of high quality, integrated risk analysis and management. The Enterprise Risk Management Framework is based on the international standard for risk management (AS/NZS ISO 31000:2009).

Approach to Long-Term Investment Decisions

Aurizon's business is capital intensive with long asset lives for new fleet or infrastructure. A disciplined approach is required to ensure improvements in asset utilisation are evaluated before potential opportunities to increase capacity are considered. We also undertake scenario analysis to understand demand and business risks.

External Review and Assurance

As part of our governance framework for corporate responsibility, we used an external stakeholder advisory workshop to consider material issues and obtain feedback on our Report. We also continue to obtain reasonable assurance over Aurizon's Scope 1 and 2 greenhouse gas emissions, energy production and energy consumption, which we submit annually to the Clean Energy Regulator. A copy of the assurance statement is available on our website.

Tax at Aurizon

For the second consecutive year, Aurizon has adopted the Tax Transparency Code to demonstrate our commitment to paying our fair share of tax.



STRATEGIC PLANNING

Climate change considerations for our business

Aurizon acknowledges that climate change is affecting a wide range of industries around the world, resulting in financial implications. Transition risks, related to energy policy, regulation, technology and market shifts (that are necessary to achieve the transition to a low-carbon economy) will affect the demand for the commodities that we haul. Physical risks, related to extreme weather events, will also continue to affect Aurizon through supply chain disruptions.

The Aurizon Board has ultimate responsibility for Aurizon's consideration of climate-related risk and is guided by the Board SHE Committee and Aurizon's Audit, Governance & Risk Management Committee as part of Aurizon's broader corporate strategy and planning. Recently, we updated our risk assessment approach using the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD) recommendations. The final TCFD Recommendations Report, released in June 2017, outlines four 'core' elements for disclosing climate-related risks: Governance, Strategy, Risk Management, and Metric & Targets. Table 2 describes each recommended disclosure and provides an index to identify where they are located within this report.

CLIMATE-RELATED RISKS DEFINITIONS

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.

Physical risks stem from the direct impact of climate change on our physical environment – through, for example, resource availability, supply chain disruptions or damage to assets from severe weather.

TABLE 2 – CORE ELEMENTS: TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

CORE ELEMENT	TCFD RECOMMENDED DISCLOSURE	INDEX
Governance	Board's oversight of climate-related risks and opportunities.	Please see above
	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.	Table 3 (page 12)
	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.	Future of Coal (page 26)
Risk Management	Organisation's processes for identifying and assessing climate-related risks.	Table 3 (page 12)
	Organisation's processes for managing climate-related risks.	
	How processes for identifying, assessing, and managing climate-related risks are integrated into the Organisation's overall risk management.	
Metrics & Targets	Metrics used by the Organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Environment (page 44)
	Disclose 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.	

TABLE 3 — RESPONSE TO CLIMATE-RELATED RISKS

RISK	DESCRIPTION	RISK TYPE	POTENTIAL IMPACT TO BUSINESS	STRATEGIC PLANNING & RISK MANAGEMENT	EXAMPLE METRICS
Thermal Coal Demand	Demand for thermal coal is subject to government energy policy, regulation of GHG emissions (including carbon pricing), technology costs, economic reform, trade policy, foreign exchange rates, energy prices and urban air quality standards.	Transition: Market, Policy & Legal and Technology Risk Level : High	Approximately a quarter of Aurizon's network revenues and half of rail haulage revenues relate to continuing demand for thermal coal. Time Horizon: Medium to Long-Term	Continue to monitor longer-term trends and changes to key indicators, such as electricity generation capacity in Asian nations, feeding into scenario analysis. Continue to compare Aurizon's scenario analysis with a range of projections (e.g. International Energy Agency, BP and Wood Mackenzie). Continue to undertake mine viability analysis (based on coal quality, mine life, expandability and profitability) to increase exposure to mines that are expected to maintain competitiveness. Seek compensation or higher risk premium for asset stranding risk with the Queensland Competition Authority.	Data: Coal demand and supply projections • Units: Million Tonnes Coal Equivalent (Mtce) or million tonnes • Source: International Energy Agency World Energy Outlook.
Access to Funding & Licences	Investor concern over climate-related risks may result in higher cost of capital for Aurizon and its customers for funding coal mining, transport and coal-fired power projects.	Transition: Reputation Risk Level : Moderate - High	Refinancing of existing borrowing facilities or development of new mines, greenfield rail infrastructure and coal-fired power may incur increased borrowing costs, delays in approvals or restrictions on licence conditions impacting growth opportunities. Time Horizon: Short, Medium and Long-Term	Continue to advocate the ability of Australia's metallurgical coal (and Australia's export infrastructure advantage) to underpin global metallurgical coal supply, used in steel production. Continue to advocate the importance of Australian high quality thermal coal supply, used for energy generation and contributing to a reduction in GHG emissions relative to lower quality alternatives. Access a broad range of capital markets and diversify funding sources / extend tenure where possible. Participate in the World Coal Association to support investment in High Efficiency Low Emission coal technology. Continuous improvement of the Climate Performance Score.	Data: Climate Performance Score • Units: Four levels from 'Disclosure D-' to 'Leadership A' (being the best) • Source: CDP (formerly Carbon Disclosure Project)
Carbon and Reporting Liability	Carbon liability under the Safeguard Mechanism Rule and potential penalties for inappropriate carbon reporting under the National Greenhouse and Energy Reporting (NGER) Act.	Transition: Policy & Legal Risk Level : Low - Moderate	Facilities exceeding the emission baseline may require the need to purchase Australian carbon credit units (ACCUs) per tonne of CO2e exceeded. Time Horizon: Medium to Long-Term	Assess future liability under the Emission Reduction Fund Safeguard Mechanism (current analysis indicates Aurizon's baselines are not expected to be surpassed prior to 2020 with provision to amend baselines or defer requirement to acquire ACCUs). Incorporate carbon prices into fleet purchase decisions when considering electric vs. diesel locomotives. Reduce GHG emissions through achieving a locomotive emissions intensity reduction target of 15% by FY2020 (from FY2015), driven by lower energy use and using lower-emissions sources. Transfer of energy risk to customers via cost pass through mechanism. Engage with policymakers directly and through membership of the Carbon Market Institute. Participate in domestic carbon offset markets (e.g. Emissions Reduction Fund).	Data: Locomotive emissions intensity • Units: kgCO ₂ e,000GTK • Source: Aurizon Sustainability Report Aurizon historical and targeted GHG emissions reduction is expected to keep us below our Safeguard baseline, at least to 2020. Please refer to our Environment chapter.
Exposure to Extreme Weather Events	Current and future disruption arising from increased severity and/or frequency of extreme weather events (higher temperatures, strong winds, flooding and associated erosion, bushfires and others).	Physical: Acute Risk Level : Moderate - High	May result in loss of revenue due to extreme weather events affecting mining, transport and port activities across the supply chain. May result in increased costs associated with ensuring asset availability, or to address damage to assets. Time Horizon: Short, Medium and Long-Term	Continue to design infrastructure to recover quickly from flooding and extreme weather events including the positioning of inventory such as ballast, flood rock, rail and formation material. Reduce blanket heat-triggered speed restrictions through more localised real-time monitoring of track temperatures. Review the opportunity to improve the regulatory framework to better reflect the Aurizon's Central Queensland Coal Network (CQCN) as one interconnected system so that contracted access rights can be transferred to other mines in a different system. Improve engagement with customers on the estimated recovery timelines by providing an initial range which is narrowed as certainty increases.	Data: Current/ projected temperatures • Units: No. of days > 35 degrees Celsius • Source: Bureau of Meteorology and CSIRO 'Climate Futures' Tool



AURION

3704

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159mm

Safety

At Aurizon, the safety of ourselves and others is our number one priority. It's at the core of everything we do as we commit to ZEROHarm.

Q&A with Danny Harnedy (Head of Safety, Health and Environment)



WHY IS SAFETY THE NUMBER ONE PRIORITY FOR AURIZON?

Safety underpins all that we do. We cannot achieve operational performance or maintain our social licence to operate unless we make the safety of employees, contractors and the public our number one priority.

WHAT ARE THE NEXT STEPS IN AURIZON'S SAFETY JOURNEY?

We need to simplify, streamline and focus processes to drive improved outcomes around specific metrics. Accountability through regional safety leadership is key, but so is empowering individual actions. For example, we are looking at tablet-based technology to provide workers with real-time representation of the network to make critical safety checks in the field.

WHERE DOES AURIZON WANT TO BE IN FIVE YEARS?

We are committed to a relentless pursuit of our ZEROHarm goal. Over the next five years we will ensure that all employees are part of the solution. Our long-term view cannot be limited to injury prevention – we have a responsibility to go beyond compliance to positively contribute to our people's capability though improved wellbeing.



DID YOU KNOW?

Aurizon has introduced mandatory drug and alcohol testing at the start of all shifts at all operational sites. Across other areas of the business our employees are subject to mandatory drug and alcohol tests at any time.

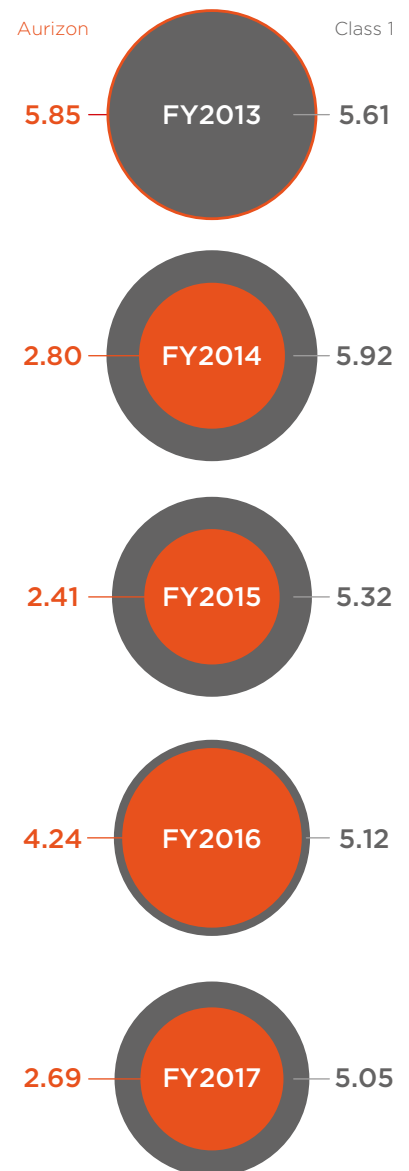


EMPLOYEE SAFETY

We continue to prevent workplace fatalities, however our lost time injuries increased from zero to seven this year. While this is an important indicator, we have consider the time taken to recover from all injury types to illustrate impacts on the individual, as well as lost productivity (see Figure 4).

Our Total Recordable Injury Frequency Rate (TRIFR per million man-hours worked) is important to drive improvements and monitor instances of employees being unable to return to work. Figure 3 illustrates how our TRIFR has fluctuated but remained below the comparable Class 1 railroad average. From 1 July 2017, we have been reporting TRIFR in line with internationally recognised standards and practices to be able to benchmark ourselves against leading organisations, many of which are outside the international rail sector. This has included widening the scope of total recordable injuries to include all restricted work injuries. Based on year-to-date reporting, we have captured a higher number of injury events in line with our expectations.

FIGURE 3 – TOTAL RECORDABLE INJURY FREQUENCY RATES (AURIZON VS CLASS 1*)



*Class 1 data published until 30 April 2017 (noting that their Fiscal Year starts on 1 October) calculated by averaging TRIFRs of BNSF, Canadian National, Canadian Pacific, CSX, Norfolk Southern & Union Pacific

ZEROHarm

Beyond benchmarking, we also look at Aurizon injury data by examining the body parts that are commonly affected. This has allowed us to redesign tasks to manage specific risks (e.g. potential for hand injuries from cutting activities). Part of this assessment is understanding injury severity².

As illustrated in Figure 4, while hand injuries were most common during FY2017, they are predominantly minor (e.g. cuts and bruises). In contrast, injuries to upper and lower limbs (including shoulders and hips) were more severe with most causing temporary impairment beyond two weeks.

Finally, we continue to look outside our organisation to drive improvements in safe working processes and practices. For example, following the fatality of a Queensland Rail track worker on the passenger network in South East Queensland in late May 2017, Aurizon reflected on our Network Rules and Procedures for working trackside. Specifically, higher-level controls were implemented to differentiate between walking and working in the danger zone. Aurizon will continue to monitor findings from the independent investigation and where necessary, further strengthen methods of protection when working trackside. To prevent potential trackside incidents, we have also introduced Network Lockout (a system for track protection) and Track Access System using real-time monitoring to assist with identifying and verifying an employee's location.

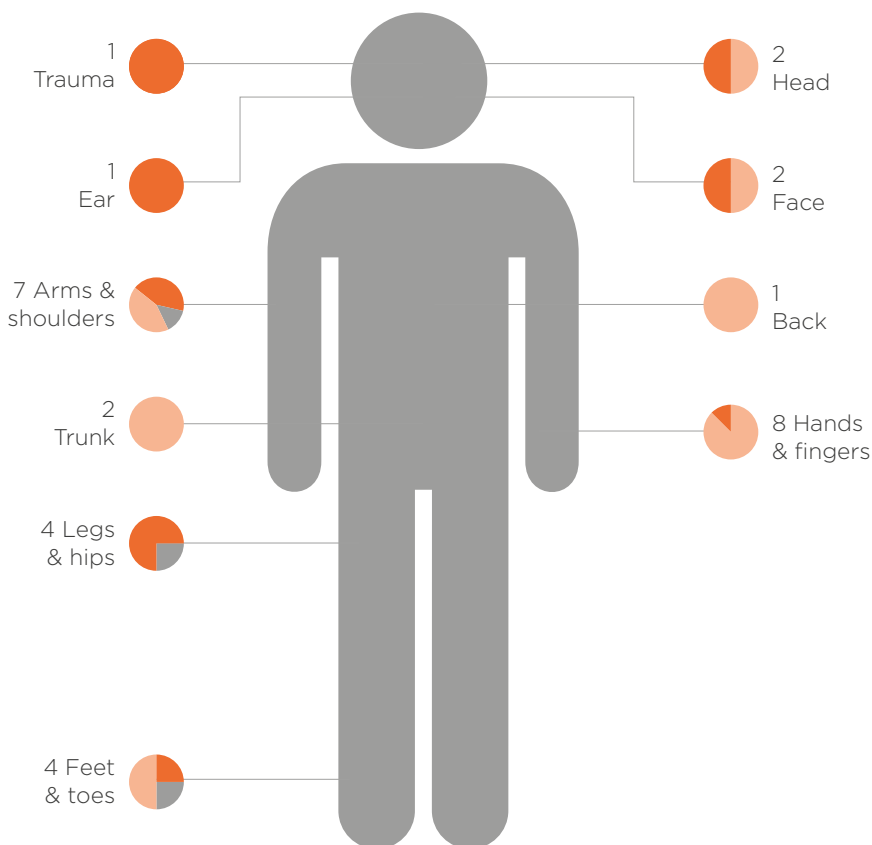
CONTRACTOR SAFETY

Contractor safety will be an important focus in enterprise safety management going forward. While we have always monitored contractor safety, we have been unable to integrate contractors into our enterprise statistics due to incompleteness of data. In FY2018, we will include contractors for the first time in all injury metrics by requiring adequate disclosure of contractor exposure hours to enable improved transparency and reporting. We are also upgrading all contractor access to Aurizon Training and Inductions, Safety Documentation, and Communications to ensure they align with internal processes.

HEALTH AND WELLBEING

We approach employee physical and mental wellbeing through a range of preventative and responsive initiatives including information on early detection of health problems (e.g. skin cancer screenings), functional capacity evaluations and crisis response training for employees. In FY2017, we focused our efforts on assessing fitness to undertake specific tasks with health checks covering 2,900 employees or 42% of total. Sick leave days decreased by 5% in FY2017 compared to FY2016, with an associated cost reduction of over \$800,000.

FIGURE 4 – FY2017 TOTAL RECORDABLE INJURIES (BY BODY PART & SEVERITY)



- **Major:** permanent impairment or temporary impairment >6 months
- **Moderate:** temporary impairment >2 weeks but <6 months
- **Minor:** no impairment or temporary impairment < 2 weeks

32 Total
FY2017

↓15 reduced
from FY2016



Across the rail industry, mental illness and suicide in the community continue to be key safety issues. Annually, there are around 150 suicides on the Australian rail network and a further 1000 attempts – nearly half of which result in serious injury. Our train drivers also continue to experience near misses and incidents due to reckless behaviour by pedestrians and motorists at level crossings and around rail corridors, which can cause severe and ongoing trauma for our employees and their families.



ANDREW HARDING
Managing Director & CEO
Aurizon

²Measuring and reporting on Work Health & Safety, O'Neill, S & Wolfe, K, Measuring and reporting on work health & safety, Canberra, Safe Work Australia, 2017

IN-VEHICLE MONITORING SYSTEM (IVMS)

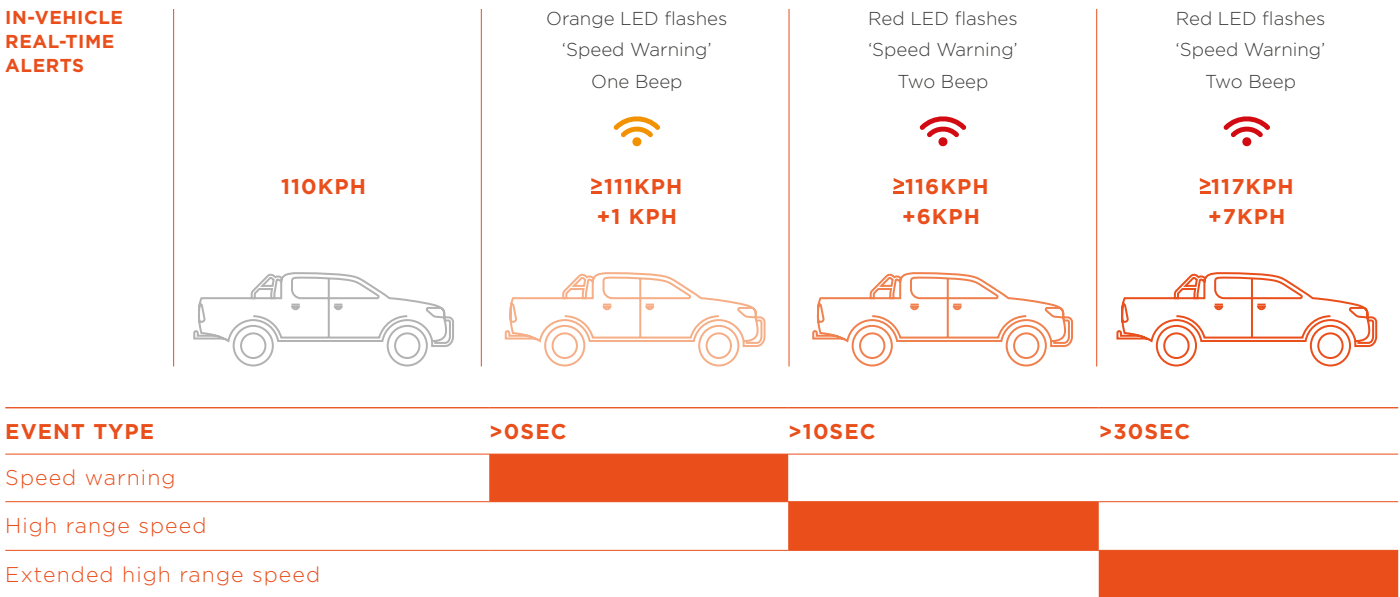
Road safety remains one of the key risks for employees due to the regional and remote locations where we operate. Employees need vehicles to move freight, meet trains and access our extensive rail network to undertake maintenance.

Our 24-hour operations also increase the risk of fatigue and hazards related to night-time driving.

In early 2017, we completed installation of In-Vehicle Monitoring System (IVMS) devices across our entire road fleet of approximately 1,500 light vehicles and trucks.

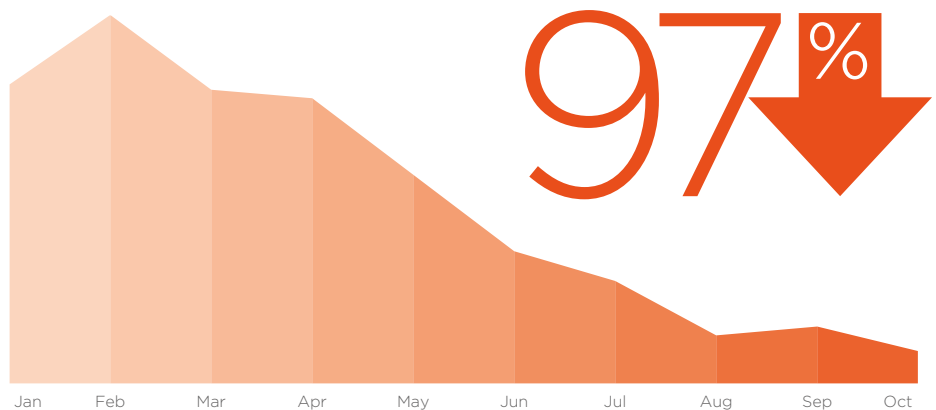
Using IVMS the driver can be identified and behaviour monitored by GPS at all times. Figure 5 illustrates a scenario where a driver exceeds the speed limit. Real-time feedback is provided to drivers via visual and audible speed alerts based on speed and duration. Historical data is used to inform performance discussions and issue warnings.

FIGURE 5 – SPEEDING SCENARIO - LIGHT VEHICLE IN 110KM/H ZONE



Following commencement of IVMS reporting in February 2016, there was a 97% reduction in all unsafe driving breaches, as illustrated in Figure 6. While technology has been a major enabler, based on anecdotal evidence and toolbox talks it has also initiated a noticeable change in employee behaviour in private vehicles that are not monitored.

FIGURE 6 – AVERAGE SPEEDING BREACHES BY 10,000KMS



OPERATIONAL SAFETY

WHAT IS A SPAD?

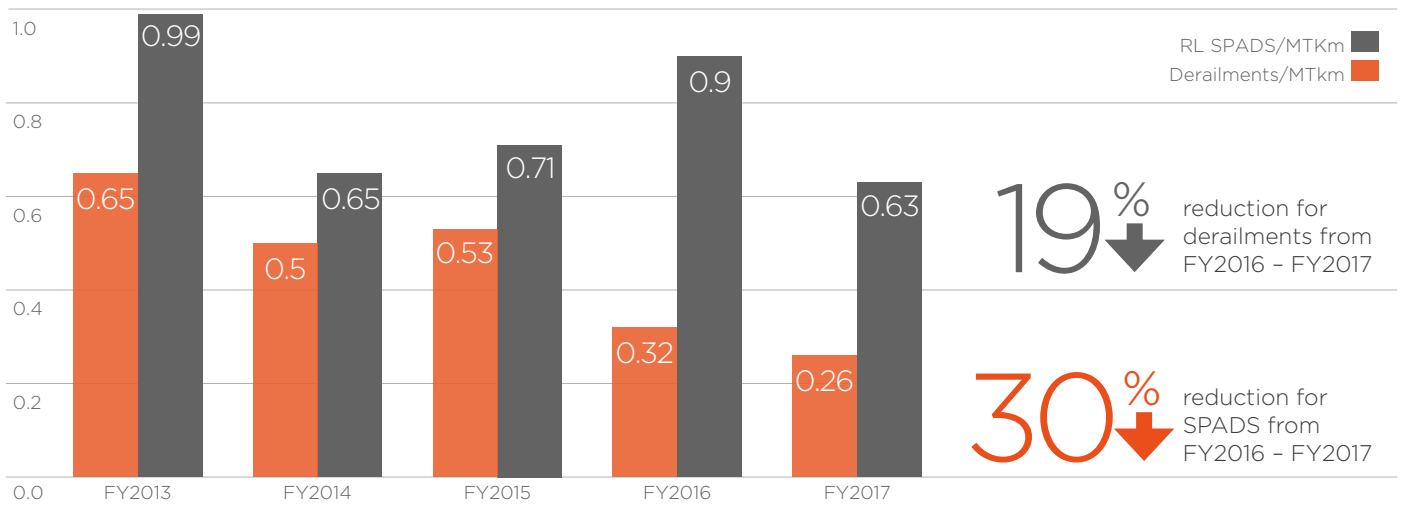
The Office of the National Rail Safety Regulator defines a signal passed at danger (SPAD) as an occurrence where a train passes a signal displaying a stop indication without the authority to do so. Only a small percentage of SPADs result in a serious accident but they provide warnings about failures or deficiencies in safety risk controls.

Aurizon takes SPADs seriously due to their potential to cause disruption to the network and damage rollingstock and infrastructure. Ultimately, they can also lead to costly investigations and impact our rail accreditation. SPADs that occur on the mainline (i.e. outside the rail yard) are referred to as Running Line (RL) SPADs and the metric for these is standardised using million train kilometres travelled (MTkm). Since FY2016, we have achieved a 30% reduction in the RL SPAD rate (as shown in Figure 7).

This result is largely attributable to increased application of train management scorecards, better monitoring and improved feedback.

In FY2017, we continued to reduce the number of derailments and avoided major derailments. Overall, we recorded seven RL derailments (compared to 10 in FY2016) to set a record low of 0.26 derailments per MTkm (as shown in Figure 7).

FIGURE 7 – HISTORICAL RUNNING LINE SIGNALS PASSED AT DANGER AND DERAILMENTS



PUBLIC SAFETY

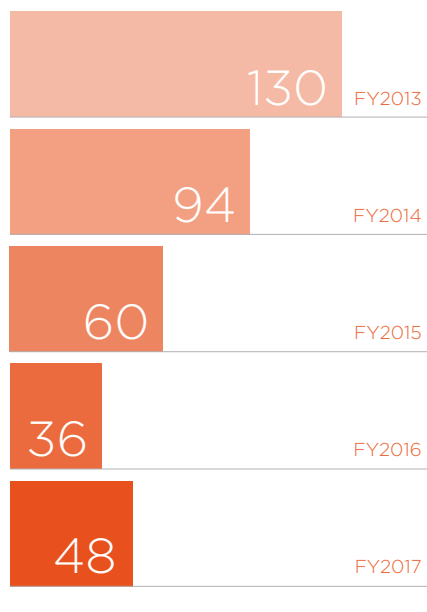
Trains travel quickly, stop slowly and cannot swerve or change direction, posing significant dangers for people and vehicles in the rail corridor.

On Tuesday, 29 August 2017, an Aurizon Intermodal train and a vehicle collided at an occupational level crossing north of Mackay. Tragically, the driver and sole occupant of the vehicle was fatally injured in the collision, and we extend our condolences to the driver’s family and friends. This is a tragic incident that will be felt deeply by the local community, including our train drivers and employees who live and work in Central Queensland. Our train driver was uninjured, but very shaken by the incident and has been provided with support and counselling.

This tragic incident is a poignant reminder of the need for constant vigilance around railways and when using designated level crossings.

Overall, there were 48 level crossing incidents representing a 33% increase during FY2017 (see Figure 8). To counter this trend, we have upgraded level crossing protection at 14 sites and closed four unnecessary crossings. We also attended an international Tracksafe workshop to explore alternative opportunities for improving level crossing safety.

FIGURE 8 – LEVEL CROSSING INCIDENTS ON THE CQCN



Over the year, we have implemented a number of targeted media and social media campaigns to raise awareness of rail safety in the communities where we operate. These campaigns focus on safe behaviour around railway level crossings and the rail corridor, and discuss the impact reckless behaviour can have on our train drivers. Local media outlets in various regions have helped support this message by publishing our campaign in print, online and on television.

Internally, we strongly encourage our employees to act as rail safety ambassadors within their local communities. We recognise that if every employee has a conversation with their family and friends, we can potentially reach thousands of people to help raise awareness and change unsafe behaviour at level crossings and across the rail corridor. Every conversation has the potential to make a difference to the safety of our drivers and prevent a near miss, collision or worse, injury or fatality.

With our growing presence hauling coal in the Hunter Valley, we have launched a new interactive Rail Safety Program, ‘Barry the Ball’, in partnership with the Newcastle Knights (a prominent regional rugby league football team). To reinforce our rail safety messages, the program aims to reach almost 1,400 primary students across the Hunter Valley rail corridor in New South Wales.

DID YOU KNOW?

Many level crossing incidents that occur are potentially dangerous but do not result in an actual collision. Often they are ‘near misses’ between a train and a road vehicle or pedestrian.

BARRY THE BALL



Business Model

Aurizon is a significant contributor to coal, iron ore and other bulk supply chains in Australia, providing both above rail (transport) and below rail (network) capabilities to generate sustainable returns.

OUR BUSINESS

Our operations fit broadly into two categories:

- Rail transportation across Australia
- Management of regulated network infrastructure in Central Queensland

Australia is the largest exporter of major dry bulk commodities traded, requiring efficient and reliable supply chains. Aurizon derives more than 85% of revenues from the transportation of bulk commodities (including coal, iron ore, alumina, bauxite, nickel and grain), predominantly for export to Asia. Our revenues are generated through a combination of contractual and regulatory mechanisms, which limit counterparty and volume risk. For example, the impact on earnings from Tropical Cyclone Debbie in FY2017 was approximately \$89 million (EBIT). Through the established regulatory processes of our below rail business, \$69 million of this impact is expected to be recovered in future years.

OUR STRUCTURE

To continue focusing on customer needs and improve competitiveness, our organisation recently restructured into four Business Units, namely Network, Coal, Bulk and Intermodal.

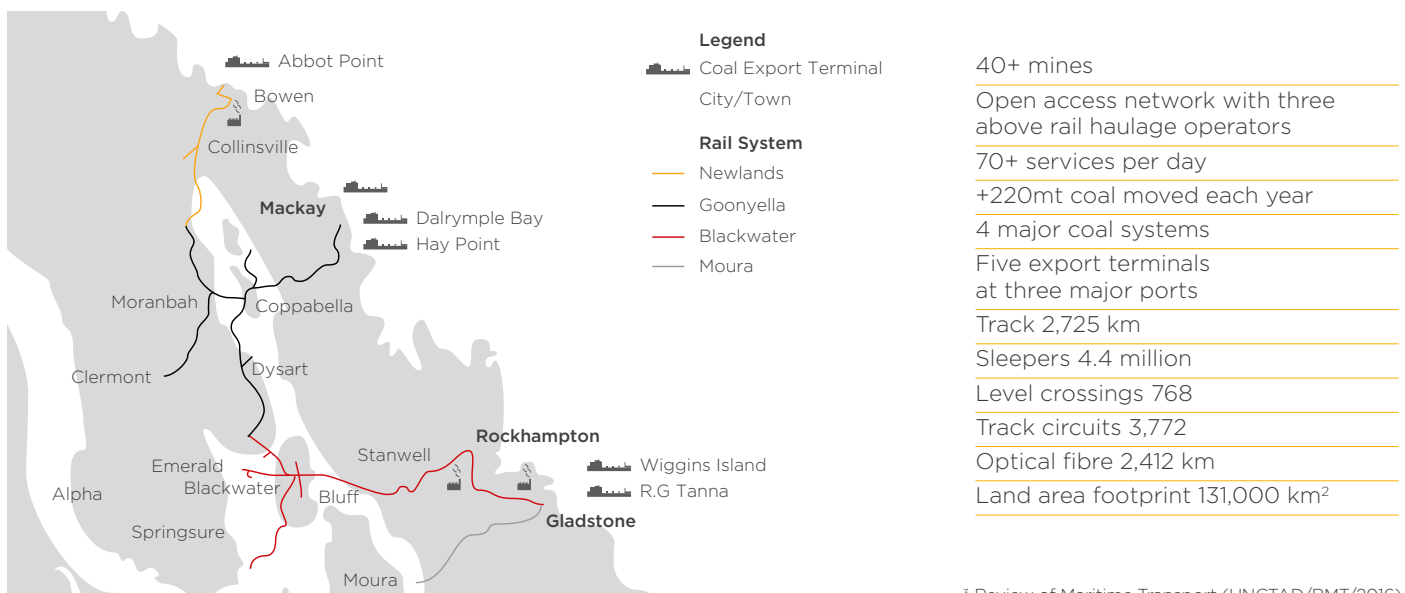
- Network: 2,725km rail network linking more than 40 coal mines and three major ports in Queensland, and carrying more than half of globally traded metallurgical coal (see Figure 9).
- Coal: approximately 200 million tonnes of coal transported annually across Queensland and New South Wales including servicing the largest global exporters of metallurgical and thermal coal (BHP Mitsubishi Alliance and Glencore).
- Bulk: approximately 60 million tonnes of iron ore and other bulk commodities (base metals, minerals, grains and livestock) transported within seven different rail corridors across Australia.

- Intermodal: offers containerised transport service nationally, carrying over 400,000 Twenty-Foot Equivalent Units. This business will be exited by Aurizon through a sale and closure process during FY2018.

The rationale for this redesign has been driven by differences in demand, financial performance and operational capability between the types of markets served.

Ultimately it allows absolute accountability for cost, revenue and business unit profitability. It also drives focus towards the things that we do well and customers value, supported by centralised specialist services in rail design, engineering, construction and maintenance.

FIGURE 9 — AURIZON'S CENTRAL QUEENSLAND COAL NETWORK



³ Review of Maritime Transport (UNCTAD/RMT/2016)

OUR ENTERPRISE STRATEGY

Over the past 12 months, we have delivered across our focus areas to drive shareholder value, as illustrated in Table 4. Beyond this, getting our core business right will determine how we can leverage future opportunities to create value and underpin the strategic direction of the company.

TABLE 4 – FOCUS AREAS TO GROW VALUE AND RETURNS

FREIGHT REVIEW	All business activities must earn appropriate return on capital Please refer to <i>Freight Review outcomes</i> , which describes the changes affecting Intermodal and Bulk business units.
CAPITAL ALLOCATION	Growth capital is benchmarked against capital returns Please refer to <i>Our focus on sustainable returns</i> section, which discusses our capital prioritisation framework.
STRUCTURE	Accountability for cost, revenue and business unit profitability Please refer to <i>Our structure</i> , which describes the business unit restructure and rationale.
TRANSFORMATION	Deliver value at all stages of the cycle Please refer to our <i>Transformation</i> chapter, which provides further detail on our progress towards our three-year transformation targets.
UTS	Ensure appropriate return given risk level Please refer to our <i>Regulation & Policy</i> chapter for details.

FREIGHT REVIEW OUTCOMES

On Monday, 14 August, Aurizon announced the outcomes of its Freight Review. A key decision was to retain the underperforming Bulk business. While the Bulk business performance was disappointing in FY2017, it is an important part of Aurizon's portfolio, with very similar capabilities to the successful coal business. We have initiated a turnaround plan of at least 3 years to make this business profitable and to ultimately achieve an appropriate return on capital. To do so we have identified some immediate priorities to turn it around. These include improving our reliability and customer service levels, fixing and/or protecting the revenue base, reducing costs and taking a more realistic view of growth options.

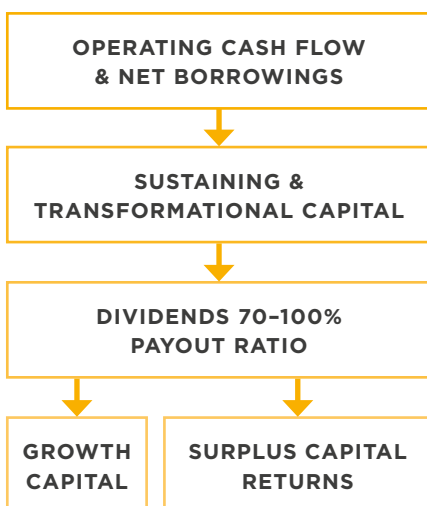
We also made the decision to exit the Intermodal business through a sale of the Intermodal Acacia Ridge terminal and the Queensland business. Total consideration for the two transactions is \$220 million and both will require regulatory approval. The Intermodal business outside of Queensland will also be shut down.

- Sale of **Acacia Ridge** (rail freight terminal in Brisbane), including transfer of approximately 30 employee positions to Pacific National.
- Sale of **Queensland Intermodal** operations, including transfer of approximately 350 employee positions to Pacific National and Linfox.
- Closure of **Interstate Intermodal** operations by December 2017 with some employees and fleet to be redeployed where possible and **Forrestfield** (rail freight terminal in Perth) to be divested at a future date.

The strategic rationale of this decision was driven by:

- **Challenged market:** This market is structurally challenged given national intermodal dynamics which are shifting towards less freight moving long distances and the decline of domestic manufacturing. Aurizon's competitive position in the market is also challenged by lack of scale.
- **Removes financial losses:** Improves enterprise operating ratio and return on invested capital.
- **Grow the core business:** Some employees and fleet can be redeployed from Interstate Intermodal to growth markets in Bulk and Coal.

FIGURE 10 - CAPITAL PRIORITISATION FRAMEWORK



OUR FOCUS ON SUSTAINABLE RETURNS

Aurizon seeks to create sustainable returns through disciplined capital allocation. Cashflow is also important to maintain our credit ratings (BBB+/Baa1 with Standard & Poor's and Moody's Investors Services respectively) and to provide resilience through the cycle or to specific events. Figure 10 outlines the disciplined focus Aurizon takes towards capital allocation.

Over the past five years, we have realised impairments to asset values that emphasise our need to ensure that invested capital delivers adequate returns. In this context, in the absence of growth capital, surplus capital will be returned to the shareholder.

On 14 August 2017, we announced a plan to buy back shares worth around \$300 million using surplus capital.

“

I view dividends as the contract with the shareholder. They are paid out immediately after meeting necessary levels of sustaining and transformational capital. Internal investment in transformation is focused on delivering competitive returns, while external growth opportunities are only considered if their returns exceed those implied by completing a buyback.

”

ANDREW HARDING
Managing Director & CEO
Aurizon

GALILEE BASIN RAIL SOLUTION

Aurizon has continued to support the development of the Galilee Basin for the better part of a decade. This has included discussions with key proponents including Adani and GVK-Hancock. In line with our capital prioritisation and risk management framework, any investment in rail infrastructure would be subject to several conditions including satisfactory due diligence, Aurizon Board and third party finance approval, and negotiation of final terms. Aurizon expects that development of the Galilee supply chain would also require third party undertakings, including offtake agreements from coal-fired power plants over an expected operating life of 40-60 years.

As part of seeking a viable infrastructure solution, in March 2017, Aurizon submitted the first stage of an application for a Northern Australia Infrastructure Facility loan to facilitate the construction of rail infrastructure for Galilee Basin coal producers.

In our application, we proposed to upgrade our existing (brownfield) rail corridor to Abbot Point Coal Terminal and connect it with a new (greenfield) railway line to haul coal from new mines in the Galilee Basin, as illustrated in Figure 11.

At this stage, we have no definitive arrangements with prospective Galilee Basin coal producers, but our analysis indicates that Aurizon's proposal would provide a number of benefits compared to an 'alternative (standalone) greenfield proposal'. These estimated benefits are outlined in Table 5.

FIGURE 11 — AURIZON'S GALILEE BASIN RAIL SOLUTION (ILLUSTRATIVE)

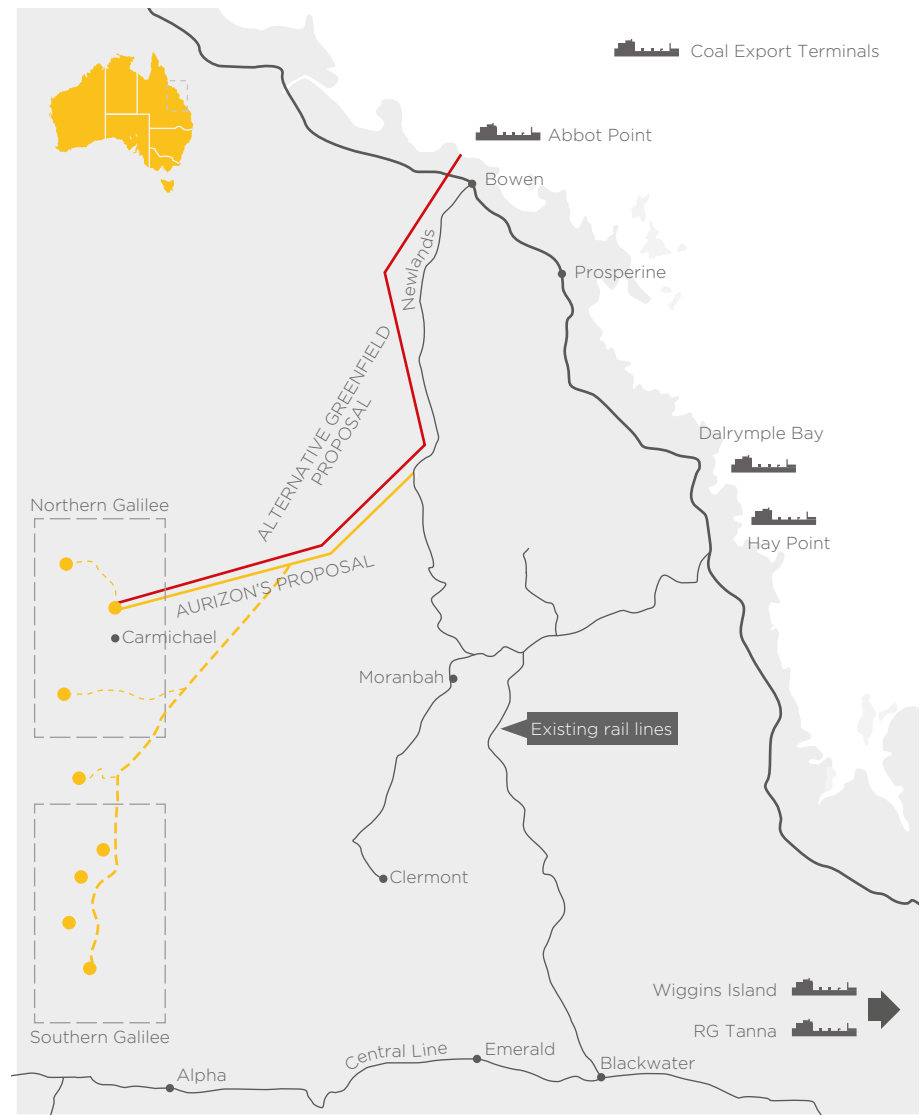












TABLE 5 — ESTIMATED BENEFITS FROM AURIZON'S GALILEE BASIN RAIL SOLUTION

COMMUNITY	ENVIRONMENT	COAL PRODUCERS
 Requires \$650 million less taxpayer funding.	 Reduces number of endangered ecosystems affected by 10.	 Reduces total capital costs by \$1 billion by avoiding the duplication of 181 kilometres of rail corridor.
 Lowers the project risk for the tax payer by using existing infrastructure.	 Reduces affected vegetation by 2,000 hectares.	 Provides flexibility to stage investment if ramp up is slower than planned, avoiding underused capacity and higher tariffs.
 Requires four less native title claims.		 Opens up railings to all coal producers in both the northern and southern Galilee Basin.
 51 fewer land acquisitions.		 Allows transport to multiple ports (additional 60mtpa of capacity) with access agreed with Queensland Competition Authority.



Future of Coal

Our business success is linked to the continued demand for coal and competitiveness of Australian coal.

Over the past three years, our Sustainability Report has supported a dialogue with stakeholders on the future of coal, with a focus on Australia's role in global seaborne coal supply. Recognising the end destination for Australian export coal, Aurizon's focus remains on Asian seaborne demand and Australia's subsequent participation.

Although metallurgical and thermal coal are similar in terms of the method of extraction and preparation, the differing properties of the two coal types mean that there are distinct markets and therefore, drivers of future demand. For metallurgical coal, it is steel production that is the driver of future demand, with around three-quarters of a tonne of metallurgical coal required for each tonne of steel produced using the (dominant) blast furnace method. Steel consumption holds an integral link with economic development driving construction of modern economies and urban infrastructure.

For thermal coal, it is energy generation (and fuel mix) that drives demand. According to the International Energy Agency (IEA) World Energy Outlook 2016, an estimated 1.2 billion people (16% of the global population) do not have access to electricity, including over 500 million people in developing Asia.

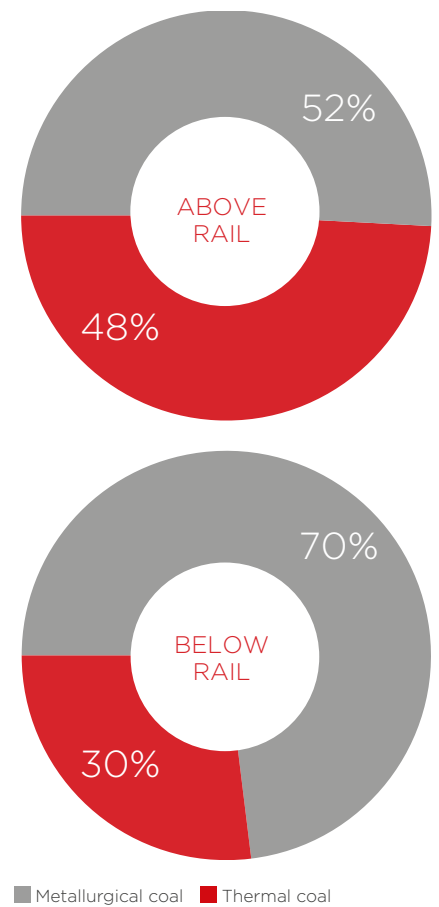
IMPORTANCE OF COAL TO AURIZON

Approximately 65% of Aurizon's revenue relates to coal. As illustrated in Figure 12, metallurgical coal is the major contributor as it represents 70% of the volumes on our below rail network and approximately half of our rail haulage volumes, given Aurizon's presence in the thermal coal rich Hunter Valley.

AURIZON'S ROLE IN AUSTRALIA'S COAL TRANSPORTATION

Aurizon holds a significant role in the Australia coal supply chain, with more than two-thirds of Australia's coal exports using Aurizon's network or carried by Aurizon's above rail business. Domestically, Aurizon also provides haulage for a number of domestic customers including our newest customer AGL Energy in New South Wales with an eight-year contract beginning in July 2017.

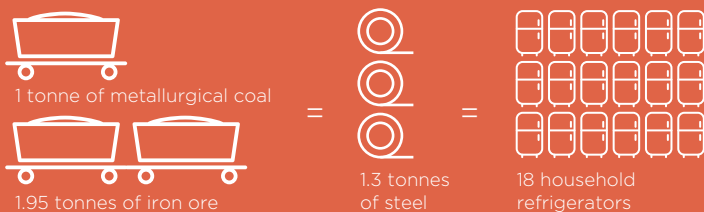
FIGURE 12 – AURIZON'S COAL-RELATED REVENUES



Source: Coal types: Wood MacKenzie Coal Supply Service (July 2017) and Aurizon analysis. The Aurizon coal revenue split is based on estimated product split at serviced mines by volume.

DID YOU KNOW?

STEEL



ELECTRICITY



DEMAND FOR SEABORNE COAL IN KEY EXPORT MARKETS

A key consideration for coal demand is location. More than 90% of the coal that Australia exports is destined for Asia and the Indian sub-continent. Therefore, the following sections set out the inherent drivers that underpin demand in developed Asian economies such as Japan, South Korea and Taiwan (that have historically provided a reliable source of demand) and developing economies including China and India (that have driven significant growth in the last decade). Figure 13 illustrates the key export destinations for Australian coal.⁴

Evident in these numbers is the emergence of India as the largest importer of Australia's metallurgical coal and the resurgence of China following domestic supply reform coupled with growth in thermal power generation. We have also added ASEAN Member States⁵ this year to show the significant growth and potential to become a key destination for Australia's coal exports.

In the ASEAN region, 80GW of coal-fuelled energy capacity is under construction or planned, with almost half of this capacity is expected to

make use of advanced High Efficiency Low Emission (HELE) technology which favours high quality coal.⁶

Combined with cost effective production and transportation, Aurizon holds the view that high quality metallurgical and thermal coal supplied by Australia will continue to be robust against a backdrop of increasing demand from Asian nations.

WHY IS COAL IMPORTANT TO AUSTRALIA?

TRADE: Australia is the world's largest coal exporter accounting for around two-thirds of seaborne metallurgical and around a quarter of thermal coal supply. It remains Australia's second largest export industry.

POWER: Coal continues to supply around two-thirds of Australia's electricity.

ECONOMY: Value of coal export volume in FY2017 of \$53.6 billion, supporting almost 50,000 coal mining employees.⁴

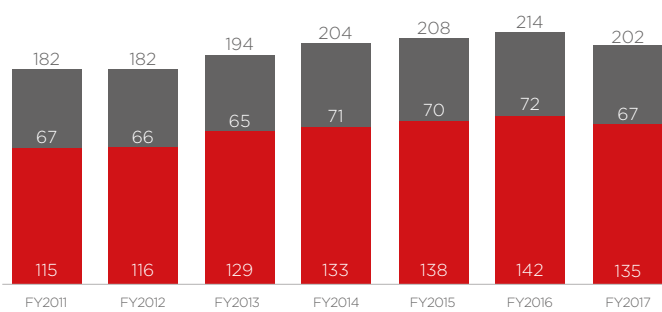
KEY EXPORT DESTINATIONS FOR AUSTRALIAN COAL



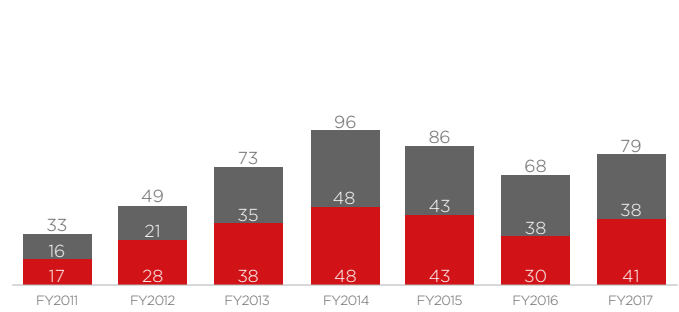
FIGURE 13 – KEY EXPORT DESTINATIONS FOR AUSTRALIAN COAL (MILLIONS OF TONNES PER ANNUM)

■ Metallurgical coal ■ Thermal coal

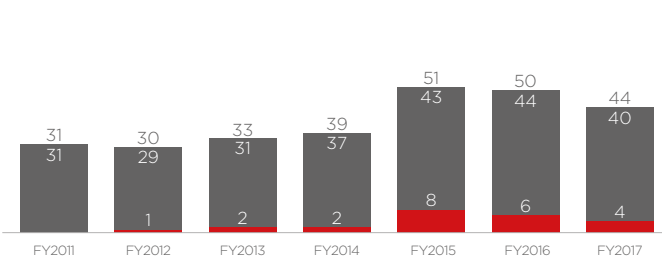
JAPAN | SOUTH KOREA | TAIWAN



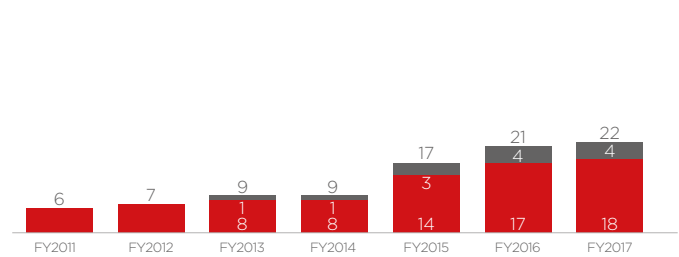
CHINA



INDIA



ASEAN MEMBER STATES



⁴Australian Bureau of Statistics

⁵ASEAN Member States: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam

⁶ASEAN's Energy Equation (2017), World Coal Association and ASEAN Centre for Energy

THE FUTURE OF SEABORNE METALLURGICAL COAL

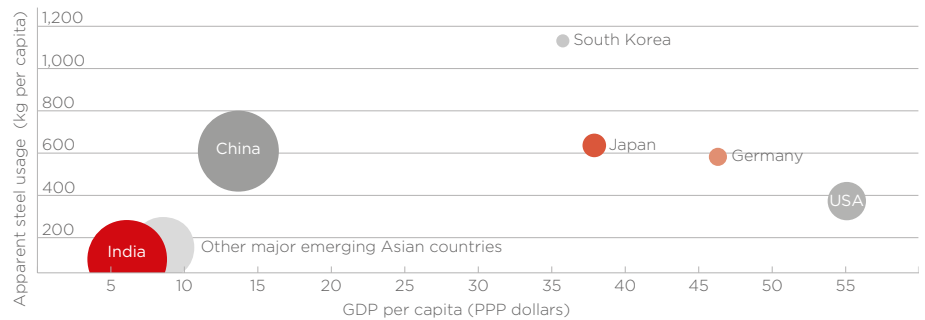
Metallurgical coal is used to produce steel. Listed below are the four key drivers that continue to underpin Australia's success in the global seaborne metallurgical coal market:

1. Increasing Demand for Steel in Asia

On a per capita basis, many countries in Asia are likely to dramatically increase steel consumption as incomes rise. As illustrated in Figure 14, India and other emerging Asian countries sit well below the per capita usage in other major steel producing nations. This indicates the significant growth potential for their steel producers.

FIGURE 14 - PER CAPITA STEEL USAGE VERSUS PER CAPITA INCOME BY KEY COUNTRIES

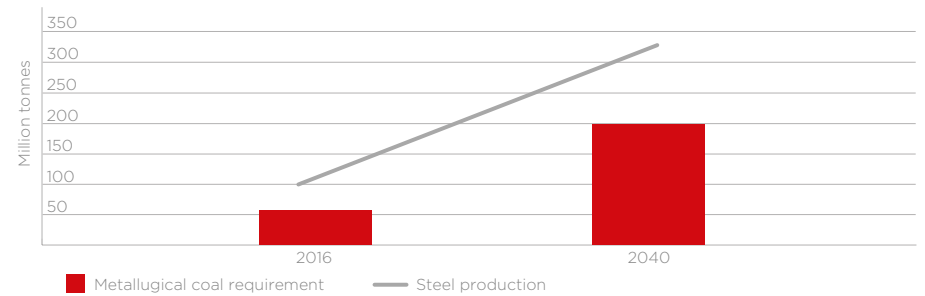
Source: World Bank (GDP and population data), CEIC (steel data) and Aurizon analysis. Note bubble size represents population. Other major emerging Asian countries includes Indonesia, Thailand, the Philippines, Vietnam, Malaysia, Pakistan and Bangladesh.



2. Limited Substitutes in Steel Production

Metallurgical coal will still be required for the majority of global steel production going forward. In India, the IEA expects 190 million tonnes of metallurgical coal required for steel production in 2040, as indicated in Figure 15.

FIGURE 15 - INDIAN STEEL PRODUCTION AND METALLURGICAL COAL DEMAND
Source: Figure 5.15, Incremental coal demand to 2040 by key sector in India in the New Policies Scenario (IEA WEO 2016)

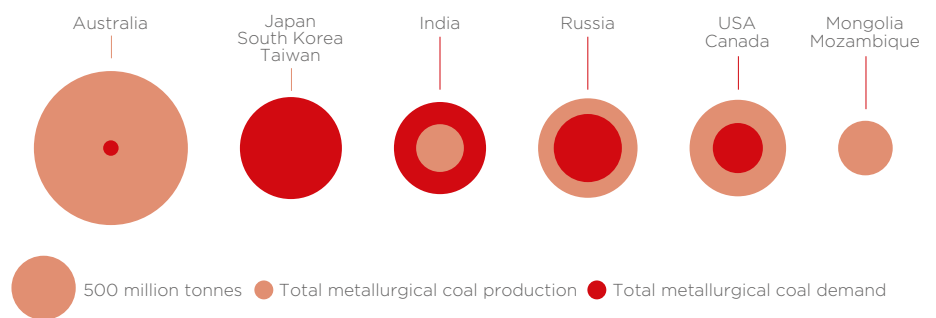


3. Scarcity of Metallurgical Coal

More than 30% of global metallurgical coal demand is met through international trade, over half of which is carried by Aurizon's Central Queensland Coal Network (CQCN). Going forward, major steel producers will continue to rely on imports, particularly in India where more than 85% of metallurgical coal demand is met by imports.

FIGURE 16 - MARKETABLE METALLURGICAL COAL PRODUCTION BY COUNTRY TO 2030

Source: Wood Mackenzie Global Coal Markets Tool

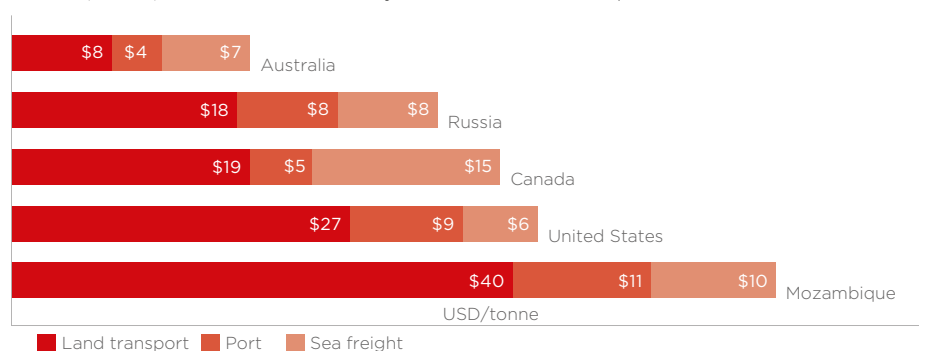


4. Australia's Export Infrastructure Advantage

Currently, the cost and availability of land transport restricts supply of metallurgical coal from other exporting nations. As illustrated in Figure 17, Australia has the lowest average transportation and port costs. This advantage is underpinned by the shorter distances between mines and ports and significant port and rail capacity to exclusively service coal exports.

FIGURE 17 - LAND TRANSPORT, PORT AND SEA FREIGHT COSTS FROM MAJOR METALLURGICAL COAL EXPORT COUNTRIES TO INDIA

Source: Wood Mackenzie Coal Costs Benchmarking May 2017. Freight: Wood Mackenzie Global Coal Markets (2017 1H), arrival India. Australia: Hay Point, United States: Hampton Roads, Canada: West Coast



THE FUTURE OF SEABORNE THERMAL COAL

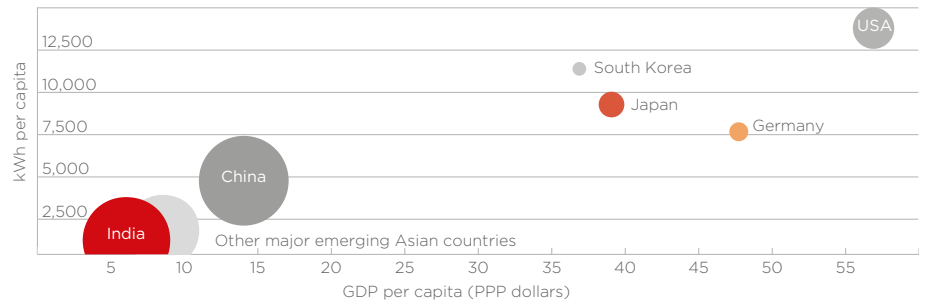
Thermal coal is used to produce electricity. Listed below are the three key drivers that underpin the continued role for Australian seaborne thermal coal in a diversified electricity generation mix across Asia.

1. Increasing Electricity Demand in Asia

Electricity demand will be driven by economic development and electrification. India's urbanisation is a key driver of energy trends with an additional 315 million people – almost the population of the United States today – expected to live in India's cities by 2040.

FIGURE 18 – PER CAPITA ELECTRICITY CONSUMPTION VERSUS PER CAPITA INCOME BY KEY COUNTRIES

Source: World Bank (GDP, population and electricity data) and Aurizon analysis. Note bubble size represents population.

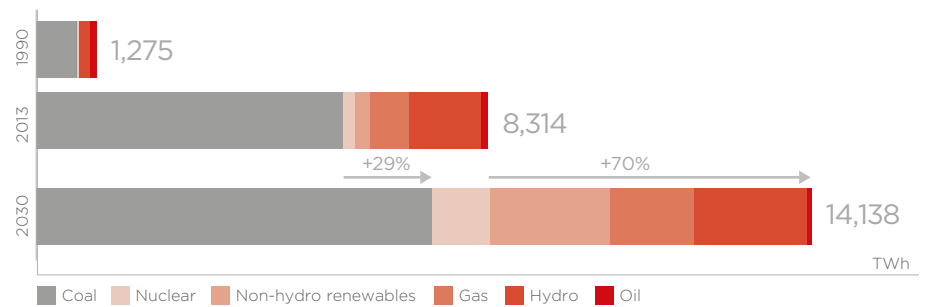


2. Continued Reliance on Coal-Fired Power in Asia

While a higher share of investment will be directed towards renewables, coal-fired power is still expected to increase in Asia by 29% or more than 1,500 terawatt hours (TWh) of annual demand by 2030, under the IEA New Policies Scenario.

FIGURE 19 – INTERNATIONAL ENERGY AGENCY (IEA) OUTLOOK FOR ELECTRICITY GENERATION IN NON-OECD ASIA BY SOURCE (TWH, SHARE)

Source: IEA World Energy Outlook, New Policies Scenario 2016.

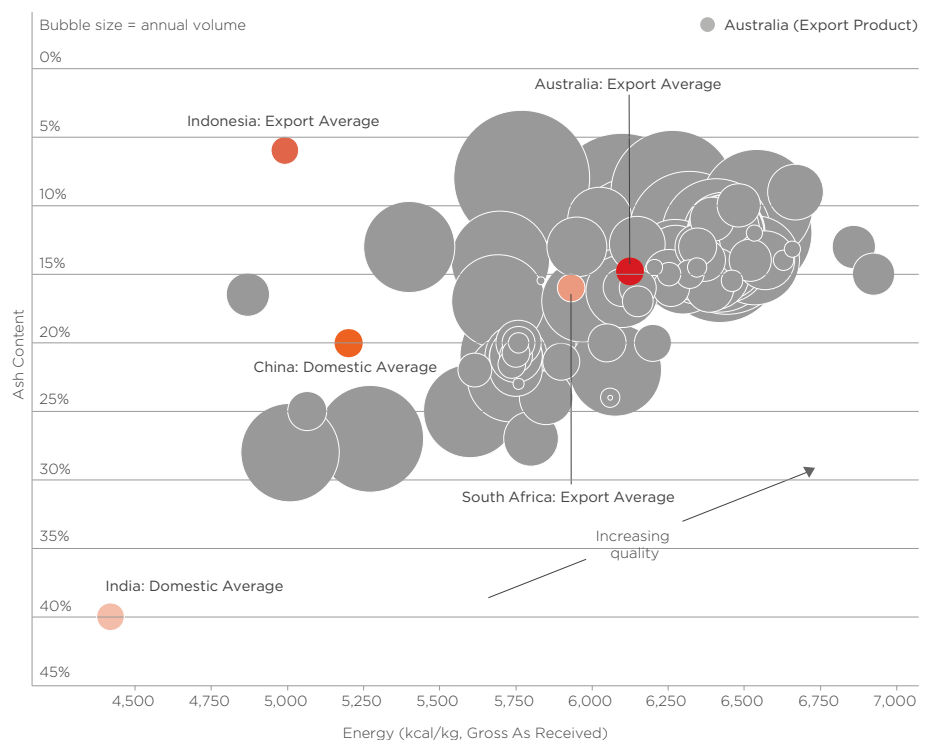


3. Importance of High Quality Coal

Where coal-fired generation continues to expand in Asia it will be important that the highest quality coal is used to reduce emissions. On average, Australia's export average coal has the highest energy content and relatively low ash content when compared to most other major sources of seaborne thermal coal, as illustrated in Figure 20. Additionally, when combined with high quality Australian coal, GHG emissions can be reduced by up to 50% using ultra super critical technology compared to sub-critical plant technology using average Indian coal quality.

FIGURE 20 – THERMAL COAL ENERGY AND ASH CONTENT

Source: Wood Mackenzie Coal Cost Benchmarking (May 2016), Wood Mackenzie Australia Coal Supply Service (June 2016). Source: India Ministry of Coal, Indonesian Coal Mining Association and Richards Bay benchmark specifications (Platts).





SCENARIO ANALYSIS

Aurizon continues to undertake scenario analysis in strategic planning, whereby drivers of uncertainty are identified and outcomes subsequently tested against different outcomes. As mentioned on the previous page, metallurgical coal and thermal coal each have distinct demand drivers, and when overlaid with competitiveness of seaborne supply and Australia's participation in the markets, enable the creation of volume scenarios for strategic planning.

As noted in the Governance, Risk and Strategic Planning chapter, Aurizon has adopted the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). One of the Task Force's recommended disclosures 'focuses on the resilience of an organisation's strategy, taking into consideration different climate-related scenarios, including a 2° Celsius or lower scenario'. Although Aurizon develops its own long-term outlook for seaborne coal demand, we also consider the most well-known and widely used '450' or '2 Degree' Scenario (2DS) produced by the International Energy Agency (IEA) through the annual release of the World Energy Outlook (WEO). Please refer to the WEO scenario definitions.

IEA 2 DEGREE SCENARIO AND IMPLICATIONS FOR AUSTRALIA COAL EXPORT VOLUMES

In the 2DS Scenario, the IEA projects global coal trade (sum of both metallurgical coal and thermal coal) to reduce by 31% by 2030 compared with 2014, representing a compound annual growth rate of -1.6% across this period. Insights from the WEO 2016:

- For metallurgical coal trade, volume reduces by 9% by 2030 compared with 2014, representing a compound annual growth rate of -0.6% across the period. The IEA notes that 'alternatives to coal use for power

generation are widely available, unlike in the steel industry, and that exporters of high quality coking coal, such as Australia, Russia and Canada can sustain a considerable level of export-oriented mining activity, even in the 450 Scenario'.

- For thermal (2DS) coal trade, volume reduces by 38% by 2030 compared with 2014, representing a compound annual growth rate of -3.0% across the period. The report notes that 'the de-globalisation of the steam (or thermal) coal market hits exporters across the board, but those with low production costs and proximity to key importers in developing Asia, are slightly better off than exporters that have large market shares in the Atlantic basin'.

Based on Australia's export volumes in 2014 (and the split of metallurgical coal and thermal coal) and assuming Australia's participation in the trade market remains at 2014 levels, Australia export volume under this scenario would be projected to reduce by 23% in 2030 compared to 2014 (or 81Mtce lower), representing a compound annual growth rate of -1.6%, as illustrated in Figure 21.

However, this projection takes a conservative approach to market share and does not factor in preference for higher quality coal (which Australia supplies).

WEO SCENARIO DEFINITIONS

Current Policies Scenario (CPS)

assumes no changes in policies from the mid-point of the year of publication.

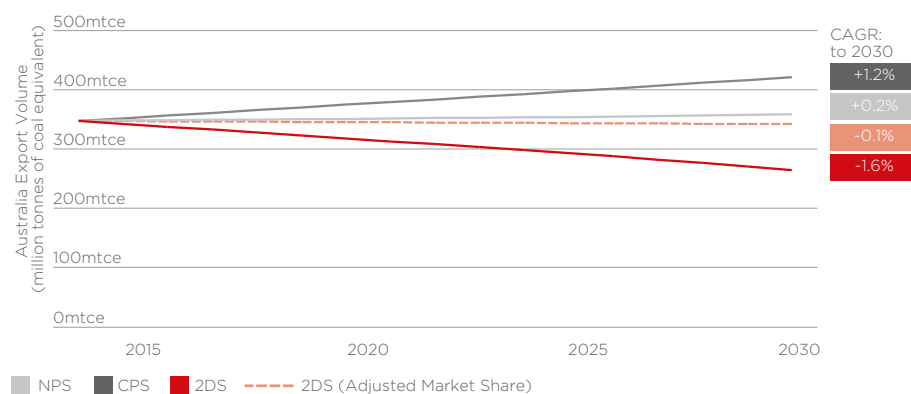
New Policies Scenario (NPS)

broadly serves as the IEA baseline scenario. It takes account of broad policy commitments and plans that have been announced by countries, including national pledges to reduce greenhouse gas emissions and plans to phase out fossil-energy subsidies, even if the measures to implement these commitments have yet to be identified or announced.

2 Degree Scenario (2DS) sets out an energy pathway consistent with the goal of limiting the global increase in temperature to 2°C by limiting concentration of greenhouse gases in the atmosphere to around 450 parts per million of CO₂.

Source: International Energy Agency

FIGURE 21 – AUSTRALIA EXPORT VOLUMES PROJECTED UNDER IEA SCENARIOS



Source: IEA World Energy Outlook 2016, Aurizon analysis. Forecasts have been extrapolated across a straight line where individual year forecasts are not published by IEA



AURIZON'S RESILIENCE UNDER AN IEA 2 DEGREE SCENARIO

Aurizon considers the following when assessing the resilience of its business to the IEA 2 Degree Scenario:

1. **Lack of country level import data:** 2DS does not provide country level thermal coal import and export data to assess demand projections. Aurizon undertakes more detailed analysis of the delivered cost of thermal coal to coastal coal-fired power stations and considers the coal quality requirements for more efficient generation technology in key export destinations.

2. **Market share:** Aurizon holds the view that in a carbon constrained environment, higher quality coal (lower ash and high energy), which Australia supplies, will be favoured and will increase Australia's participation in global trade. In a scenario where trade volume maintains IEA's 2DS projection and where Australia gains ten percentage points (compared to 2014 participation) in the respective metallurgical and thermal coal global trade markets, Australia export volume would reduce by just 5Mtce in 2030 (-2% compared to 2014), representing a compound annual growth rate of - 0.1% across the period. This scenario is illustrated as 2DS (Adjusted Market Share) in Figure 21.

3. Volume, revenue and profit:

Any change in Aurizon's above rail volumes may not necessarily align to a change in revenue or profitability. For example, over the period FY2012 to FY2017, above rail volumes and revenue were relatively unchanged while above rail EBIT increased by over 30%.

4. **Metallurgical coal:** 70% of coal volumes transported across the CQCN were metallurgical coal in FY2017. Given the lack of substitutes in steel production, a scenario of lower aggregate coal trade volumes driven by the advent of a 2°C projected scenario is not expected to have a material impact on CQCN demand. Table 6 provides a comparison of asset value and thermal coal volumes hauled as a proportion of total system volumes.

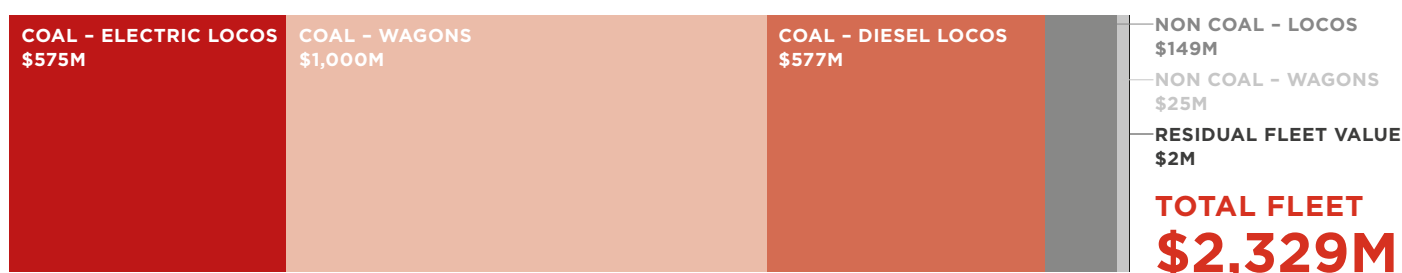
5. **Transferable assets:** In general, diesel locomotives used to haul coal can be redeployed to different bulk commodities where demand permits. In contrast, electric locomotives and coal wagons are designed for coal haulage and are not easily transferred based on network requirements. Figure 22 provides a comparison of coal locomotive (-\$1.1 billion) and coal wagon asset values (\$1 billion) as a proportion of the total Aurizon locomotive and wagon fleet (-\$2.3 billion).

TABLE 6 – COAL SYSTEM ASSET VALUES AND THERMAL COAL EXPOSURE

	INFRASTRUCTURE ASSET VALUE (\$M)	THERMAL COAL VOLUMES HAULED (AS A % OF TOTAL)
Goonyella*	\$1,811.3	15%
GAPE**	\$957.6	15%
Blackwater*	\$2,740.9	40%
Newlands	\$195.3	60%
Moura	\$266.6	65%
TOTAL CQCN^	\$5951.8	30%

*Goonyella and Blackwater systems include electric infrastructure. **GAPE: Goonyella to Abbot Point Expansion Project. ^ Total CQCN RAB estimate of opening asset value in FY2018 is subject to QCA approval of RAB roll-forward. Source: Aurizon Network 2017 Draft Access Undertaking (UT5).

FIGURE 22 – COAL LOCOMOTIVE & WAGON ASSET VALUES AS A PROPORTION OF AURIZON LOCOMOTIVE & WAGON FLEET



Transformation

Aurizon is committed to continuously improving our operations to reduce resource use and increase productivity for the benefit of customers and shareholders.

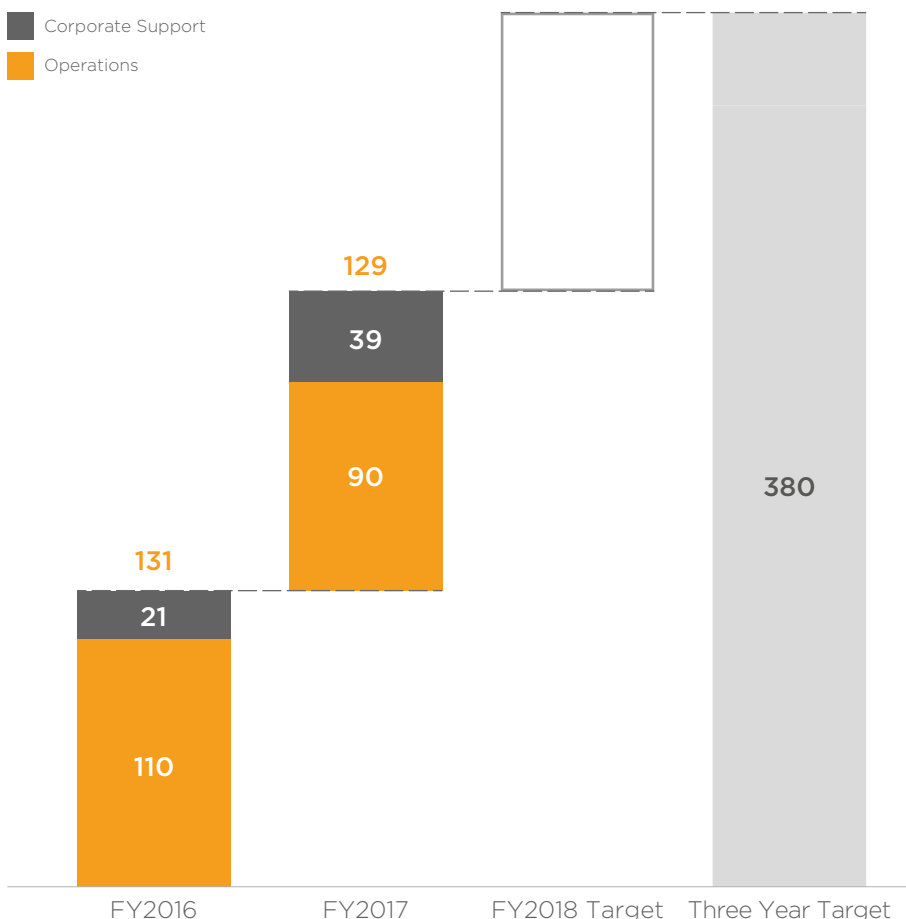
CONTINUOUS IMPROVEMENT

At Aurizon, transformation is a continuous process, delivering lower costs, increased capacity, innovation and improved productivity. We are on track to achieve our three-year target of \$380 million in transformation benefits, having delivered \$129 million during FY2017, as shown in Figure 23.

FY2018 will not be the end of transformation. We are embedding a continuous improvement culture within our new Business Unit structure with clear accountability for profitability and processes.







We understand that to be sustainable our transformation needs to be finely balanced between social, environmental and economic imperatives. Our IVMS section provides further explanation of our workforce strategy. We have also reduced our environmental footprint over time by reducing requirements for consumable inputs such as fuel, water, wheels and bearings and fixed assets including locomotives and wagons.

FIGURE 23 — TRANSFORMATION BENEFITS (\$ MILLIONS)



IN VEHICLE MONITORING SYSTEMS (IVMS)

Aurizon was recently recognised for innovation for the development of the IVMS program, which delivers safety and commercial benefits powered by the Internet of Things. In FY2017, the IVMS program realised over \$2 million benefits through monitoring of vehicle location, utilisation and driver behaviour. Across more than thirty geographical locations the program delivered a range of benefits including:

-  10-15% reduction in fleet size
-  10% reduction in fuel consumption per kilometre
-  10-20% savings in maintenance costs
-  Up to 10% reduction in insurance premiums
-  5-15% reduction in operating costs by removing private use of vehicles
-  Reduced payment of FBT/road excise when vehicles are travelling off-road

TECHNOLOGY ROADMAP

In FY2017, Aurizon's Freight Management Transformation (FMT) program was terminated as it was not delivering value and was at high risk of over-spend and delays. A review of FMT highlighted the need for an enterprise technology strategy delivering smaller, more frequent improvements in a prioritised order.

Aurizon's Technology Roadmap provides structure and visibility of these priorities within the next three years. It leads Aurizon down an ambitious but achievable path beyond 2020, while allowing validation of financial benefits before progressing further. It is organised into five focus areas with two enablers, as illustrated in Figure 24.

AURIZON'S HIGH-TECH FLEET OF TRACK MACHINES

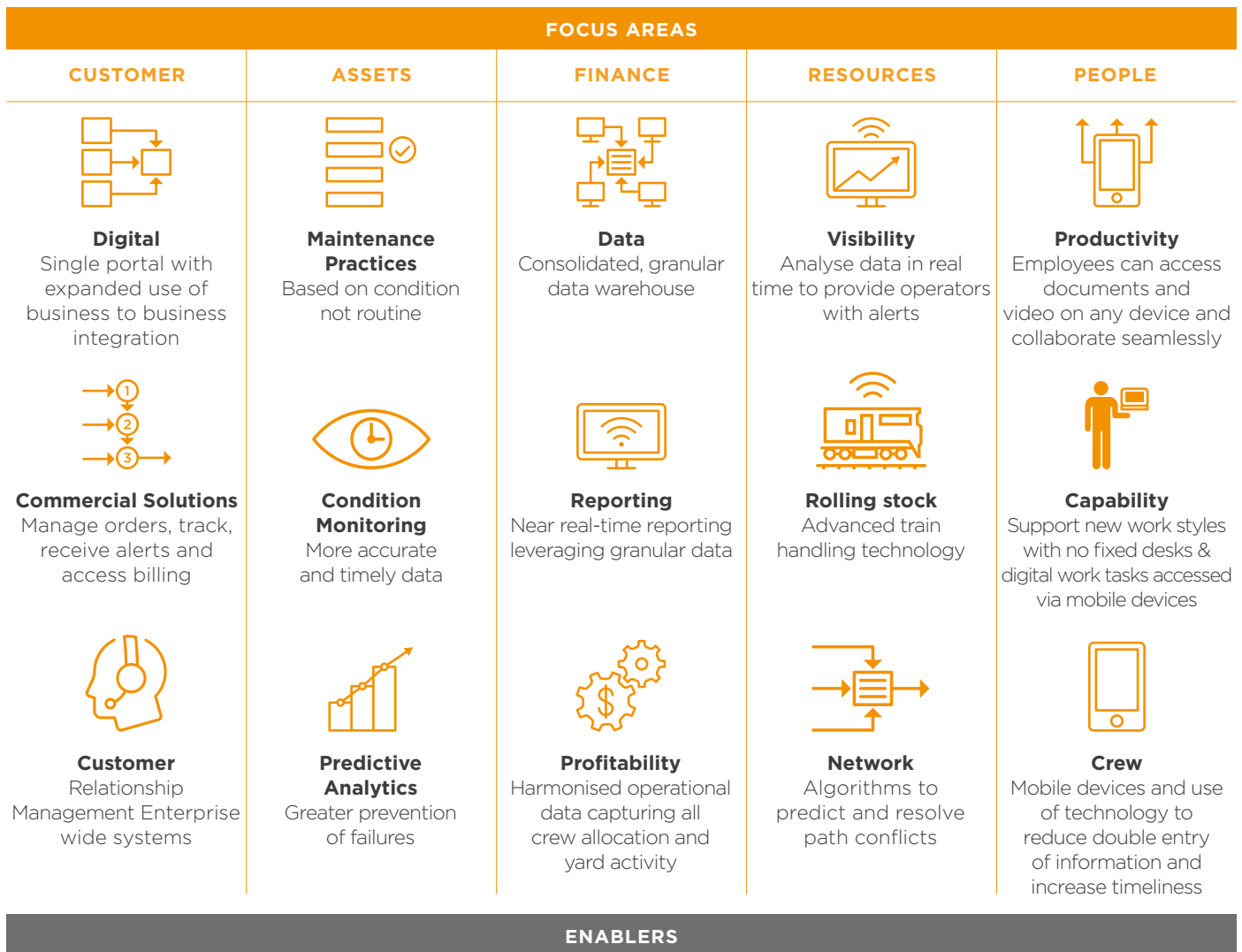
Aurizon recently invested in new high-tech track machines to increase mechanised production capability. These machines have doubled the length of rail which can be maintained from an average of 650 metres to 1,300 metres per hour. Key benefits include:

- Reducing closure hours and increasing network availability.
- Eliminating double shifts and realising labour-hire savings.
- Preventing corrective maintenance and achieving material cost savings.

Aurizon's Automated Rail Transport System has also delivered significant improvements in safety and efficiency with elimination of manual tasks. Key benefits include:

- Reducing rail delivery time (with higher speeds of up to 80km/h loaded vs. previous speed of 60km/h).
- Reducing rail damage during delivery.
- Eliminating additional plant for manipulating rail.
- Reducing on track welding through delivery of 220m rail lengths in the future.

FIGURE 24 – TECHNOLOGY ROADMAP FOCUS AREAS AND ENABLERS





OPERATING EFFICIENCY

TABLE 7 — OPERATIONAL EFFICIENCY MEASURES AND RELEVANT METRICS

MEASURE	METRIC	FY2017	FY2016	CHANGE
1. Network availability	System closures (hours)	754	1,018	26% ▼
	Below rail cancellation impact*	1.2	1.1	0.1ppt ▲
2. Asset productivity	Wagons (NTK per active wagon, daily)	14.2	14.7	3% ▼
	Locomotives (NTK per active locomotive, daily)	371.0	375.7	1% ▼
3. Energy productivity	L / 000GTK	3.11	3.10	-
	kWh / 000GTK	9.37	9.30	1% ▲
4. Labour productivity (operations)	NTK/FTE	15.7	14.3	10% ▲

■ Improvement in metric performance ■ Decline in metric performance

*Number of above rail services cancelled due to a below rail cause as a percentage of weekly agreed orders.

1. NETWORK AVAILABILITY

During FY2017, a 26% reduction in system closure hours was achieved across the CQCN. Key initiatives included:

- First phase of advanced planning and software, APEX, going live in January 2017.
- Rollout of Asset Management System in February 2017 reducing the need for reactive maintenance.
- Single line working and automated inspections, which reduced maintenance renewals from 1,300 hours to 900 hours over the past three years.



2. ASSET PRODUCTIVITY

Tropical Cyclone (TC) Debbie had a negative impact on asset productivity metrics in FY2017 which offset implementation of longer trains in both the Goonyella (126 wagon consist) and Newlands (124 wagon consist) corridors. In the Hunter Valley, wagon load restrictions were also implemented due to warmer weather and reduced asset productivity.

Active locomotive and wagons numbers increased 2% and 4% respectively during FY2017, with wagons being commissioned for ramp up tonnages for Whitehaven in NSW and an additional two coal consists to meet demand in Queensland.

3. ENERGY PRODUCTIVITY

Locomotive electric and diesel usage was affected by a significant increase in speed restrictions across our operations over the summer due to recovery from TC Debbie and record high monthly average temperatures. This required more braking activity and reduced ability to conserve momentum for trains descending steep grades.

While no progress was made towards our locomotive greenhouse gas (GHG) emission intensity target (15% reduction by FY2020 from FY2015 baseline), a number of initiatives were rolled out which should support both GHG and energy savings in future years. These initiatives included:

- Use of high specification diesel and multi-grade oil (enabling an estimated 1-3% fuel saving).
- Deploying driver advisory and train handling technology to additional corridors.
- Developing a Train Management Scorecard to engage drivers and identify improvements.

4. LABOUR PRODUCTIVITY (OPERATIONS)

Aurizon's continued workforce rationalisation resulted in a 10% improvement in labour productivity in FY2017 despite lower tonnes overall. Key labour transformation initiatives included:

- Reducing the management layer by one in most areas resulting in 143 less positions.
- Introducing nine-hour single driver only operations in two key areas in Western Australia.
- Outsourcing non-core heavy maintenance to Progress Rail.

Customers

Helping Aurizon's customers to prosper and grow is our priority. It is essential to our own growth.

Aurizon continues to focus on delivering efficient, reliable and flexible services to help our customers compete in global commodity markets.

Over the 12 months to 30 June 2017, whilst there was significant price variability in international commodity markets, there was also a general recovery from subdued prices in FY2016. For example, the average metallurgical coal price in FY2017 was US\$192 per tonne or 132% higher than FY2016 levels and the average thermal coal price was US\$80 per tonne or 49% above the previous year.

CUSTOMER SERVICE

From 1 July 2017, our business restructured into four new business units based on key product lines: Coal, Bulk (diversified bulk freight and iron ore), Intermodal, and Network. This structural change provides greater agility to provide customers with better end-to-end service. Our Coal and Bulk business units were also divided into key geographic areas to focus on regional customers and give regional managers more control over financial and operational decisions.

Aurizon works hard to improve the value we create for customers. We do this by reviewing operational performance, evaluating customer sentiment, planning improvements and implementing a response.

The three aspects of customer service that we will focus on in FY2018 include:



1. Service delivery performance: increasing order fulfilment and reducing cancellations.



2. Communication: providing timely, detailed and unified communication.



3. Partnerships: working together to tackle industry challenges.

CUSTOMER PARTNERSHIPS

Our extensive history of servicing customers, and investment in long-life assets we make in parallel with our customers' mines, forges enduring partnerships. This is most noticeable in our coal business, for example:

- We have serviced the Dawson mine in the Moura coal system for more than 50 years.
- Since 2010, we have invested more than \$500 million in new fleet and maintenance facilities in the Hunter Valley and Gunnedah Basin, such as 74 new coal wagons delivered for Whitehaven Coal in May 2017.



- As at 30 June 2017, our coal business had a weighted average remaining contract length of 9.9 years.

The strength of our partnerships is evidenced by the whole-of-supply chain approach we have taken to ensure that we work with customers to tackle long-term sector challenges, including:

- Advocating on behalf of Australia's export industries to deliver competitive rail freight transport through participation in the Freight on Rail Group.
- Sharing knowledge in relation to coal dust management.
- Working with existing and potential coal customers in relation to navigating regulatory hurdles and securing project approvals.
- Trialling longer trains and providing technical assistance to improve loading practices.
- Collaborating with GrainCorp over the past 50 years to improve rail supply chain efficiency across Queensland with support from the State Government.
- Supporting High Efficiency Low Emissions technology through our World Coal Association membership.

- From a network perspective, close partnership and collaboration are not just preferred but essential – as we work within an integrated supply chain to manage maintenance planning and respond to severe weather events.

CUSTOMER SOLUTIONS

Greater understanding of our customers and innovation in supply chain operation allows us to enhance the customer experience with mutual benefit.

AGL Macquarie (AGLM)

In October 2016, Aurizon secured a new long-term coal haulage agreement with AGLM through to December 2025. In July 2017, Aurizon began operating more than 20 services a week to supply 8.7 million tonnes per annum (mtpa) of coal to the AGLM power stations in the Hunter Valley (which supply around 30% of New South Wales' power). The coal is transported approximately 150 km predominantly from the Wilpinjong mine to the Antiene train unloading facility. Our agreement includes additional services such as train unloading, coal sampling, maintenance and other facilities management services.

Batchfire Resources

Callide Mine in Central Queensland has operated for more than 70 years to supply thermal coal to domestic and international customers. Following the sale of the mine to Batchfire Resources, Aurizon acted responsively to Batchfire's requirement for operational flexibility to win a ten-year contract for up to 6.7mtpa.

Queensland Alumina Limited

Queensland Alumina Limited (QAL) is one of the largest alumina refineries in Australia. Operating for more than 50 years it produces almost four million tonnes of alumina each year. Recently Aurizon secured a five-year extension with QAL to December 2023. QAL agreed to upgrade their private rail infrastructure to accommodate Aurizon's standard 106t wagon, enabling Aurizon to deliver an agreement with QAL that shared the cost saving benefit of the operation of the heavier rollingstock with fewer train starts.



OUR RESPONSE TO EXTREME WEATHER EVENTS

Aurizon's business, and the communities where our employees live and work, is exposed to extreme weather events which may potentially increase in regularity and severity as a result of climate change. Our Network Condition Program is designed to minimise the impact to customers through improved design, preparedness, monitoring, recovery and communication with affected stakeholders.

Since FY2011, extreme weather events have accounted for 65% of cancellations on the CQCN (for events over 48 hours). These uncontrollable events not only impact Aurizon but also customers, ports, shipping, energy suppliers and communication networks. Information, planning and customer communication systems are continuing to be improved to reduce the potential impact of extreme weather events and allow quicker recovery time. Aurizon is rolling out more remote weather and track monitoring stations to provide real time weather and track conditions. For example, Aurizon also recently participated in a CSIRO Adaptive Mining Supply Chains workshop to help

direct future development of support tools to assess the risk and impacts of climate change across mining supply chains. Aurizon's Central Queensland operations are particularly impacted by acute events, such as cyclones, due to the subtropical location. A key example this year was Tropical Cyclone (TC) Debbie.

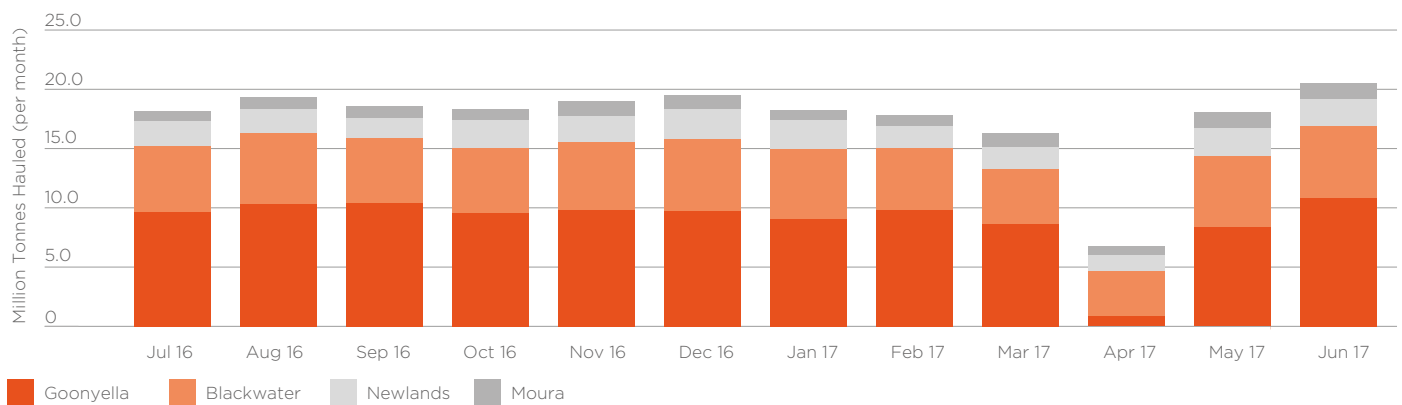
On Saturday 25 March 2017, TC Debbie formed 500km off the north Queensland coast. As TC Debbie intensified the following day the coal ports ceased operation and Aurizon engaged with our supply chain stakeholders about possible impacts. On Tuesday, 28 March 2017, TC Debbie made landfall on the mainland near Airlie Beach, south of Abbott Point Coal Terminal. All of Aurizon's four coal systems were closed with many track sections unable to operate until two weeks after the cyclone.

A critical track section affected was the Black Mountain portion of the Goonyella System, which took four weeks to reopen. This area had a number of landslides and washouts that led to damage of track, signalling equipment and overhead electrical equipment, and prevented initial access to the rail corridor.

After the event, Aurizon worked with supply chain stakeholders to ensure the best recovery possible. For example, subject to access undertaking obligations, Aurizon Network offered alternative routing opportunities from the western sections of the Goonyella system, north up the Newlands system to Abbot Point Coal Terminal, and south through the Blackwater system to the Port of Gladstone. Aurizon also received help from customers to clear access roads.

As illustrated in Figure 25, the Goonyella system was most severely impacted, driving a 60% decline in total monthly volumes hauled across the CQCN in April 2017, compared to the first 9 months of FY2017. Importantly, the maximum outage did not exceed 28 days which allowed a return to average monthly volumes during May 2017. A new record for monthly tonnes was also set in June 2017 to support recovery of tonnes lost through cancellations.

FIGURE 25 – CQCN - MONTHLY TONNES HAULED BY COAL SYSTEM



LEARNINGS FROM TC DEBBIE

Aurizon Network is applying the learnings from TC Debbie to further enhance response capability. Examples include:

- Positioning more strategically placed inventory stockpiles with additional ballast, flood rock, rail and formation material.
- Improving engagement with customers on the estimated recovery timelines by providing an initial range which is narrowed as certainty increases.
- Simplifying processes for the recovery of stranded Aurizon and third party rollingstock
- Embedding the mobilisation of Spatial Imaging Tools and drone photography for events that involve large scale earth works
- Rebuilding slopes affected by major land slips with a flatter gradient, high strength rock and armoured with concrete.
- Replacing damaged pipes with concrete culverts with higher capacity and armoured of adjacent embankments.
- Reviewing the opportunity to improve the regulatory framework to better reflect the CQCN as one inter-connected system so that contracted access rights can be transferred to other mines in a different system facilitating the ability for mines to access multiple ports through the interconnected system.



Geotechnical failures on Black Mountain due to TC Debbie

Reconstruction of slope using a flatter gradient, high strength rock and armoured with concrete.

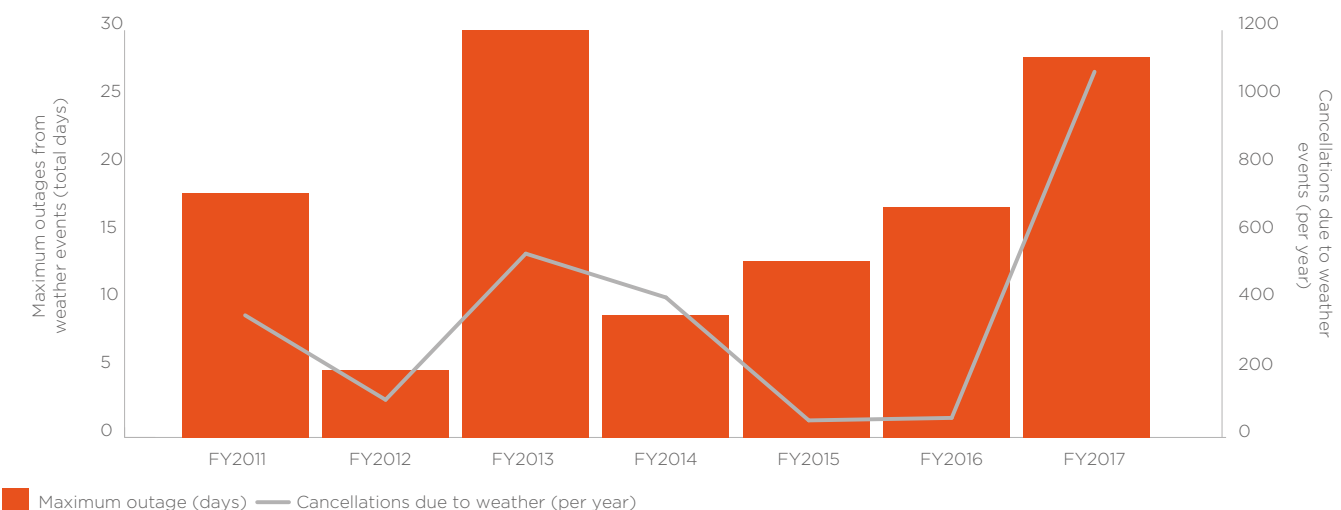
Overall, TC Debbie was one of the most extreme events Aurizon has experienced in terms of volume reduction and the impact to all four systems simultaneously. The Black Mountain event was particularly unusual as almost one metre of rain fell over three days, which was a one in 100-year likelihood occurrence.

While the impact was significant in terms of intensity of rainfall, scale and complexity, all mines had access to an export port within two weeks. This demonstrates Aurizon Network's strong operational capability which has been enhanced following each severe weather event. Larger culverts, effective use of flood rock, and higher repositioning of signalling equipment

also helped to protect the 13-kilometre track section that became submerged at Aroona in Blackwater during TC Debbie.

Since FY2011, outages from major weather events in the CQCN have not exceeded 30 days for affected parts of the network, as illustrated in Figure 26.

FIGURE 26 – MAXIMUM OUTAGES AND ANNUAL CANCELLATIONS FROM WEATHER EVENTS



In terms of economic activity, the cyclone significantly disrupted Australia's coal exports and adversely affected Queensland agricultural and tourism industries. Estimates suggest a loss to economic output of around \$2 billion.

The doubling of the seaborne metallurgical coal price in the weeks after the cyclone also reflected the significance of Queensland's supply (more than half of global seaborne trade).

This demonstrates the importance of Aurizon Network maintaining a resilient supply chain for end customers in key metallurgical coal export destinations, particularly India, South Korea and Japan who are heavily reliant on imports.

Regulation & Policy

We play an active role in encouraging infrastructure investment and efficient use of Australia's supply chains.

IMPACT OF REGULATION ON AURIZON'S COMPETITIVENESS

Queensland's coal export advantage is not simply a function of its resource endowments and mining productivity. It is achieved through cost effective and reliable supply chains in infrastructure. The ability to sustain this advantage requires careful consideration by the Queensland Competition Authority (QCA) through regulation of access in the CQCN. Without appropriate and adequate return, Aurizon may not be able to continue to invest in network resilience to severe weather events such as tropical cyclones.

On 30 November 2016, Aurizon Network submitted its Draft Access Undertaking for UT5 (covering the period 1 July 2017 to 30 June 2021). Aurizon's submission proposes the following during the UT5 period:

- Increase in average CQCN tariffs (annual growth rate of 1% per annum) driven by a larger Regulated Asset Base (RAB) as a result of customer requested expansions.
- Operating expenditure, maintenance and depreciation methodology remains broadly unchanged.
- No forecast capital expansions.

- Over 90% of the forecast capital expenditure related to the renewal of life expired infrastructure.

During early 2017, Aurizon Network maximised customer engagement to limit the consideration required by the QCA to achieve agreement on key policy items. In May 2017, the QCA approved an extension to the previous Access Undertaking (UT4) to 31 December 2017.

Overall the impact of the UT5 variables on Aurizon's financial outcome are potentially significant. All things being equal, a movement of 50 basis points on WACC equates to ~\$30 million EBIT impact based on ~\$5.8 billion RAB value.

Network response to tropical cyclones

Improving our response to extreme weather events (e.g. flooding) continues to be a key priority for Aurizon Network. Over the past five years, the CQCN has been impacted by Cyclones Oswald, Marcia and Debbie with additional maintenance costs to repair damage outlined in Table 8.

While the impact of each event varied in terms of coal systems affected, Aurizon Network has a well-established operational

framework for both preparing for the wet season and coordinating the recovery effort. This has resulted in an effective means of preparation to minimise damage whilst also expediting the time taken to re-open the CQCN to traffic after any event, as discussed in the Customers chapter.

To recover the incremental costs associated with any flood recovery effort, the regulatory framework requires that Aurizon Network submits an adjustment to the existing Access Tariffs for approval to the QCA.



TABLE 8 — AURIZON NETWORK IMPACT FROM TROPICAL CYCLONES

TROPICAL CYCLONE	YEAR	SYSTEMS	OPERATING EXPENDITURE CLAIMED (\$M)	CAPITAL EXPENDITURE CLAIMED (\$M)	TOTAL CLAIM (\$M)	STATUS
Oswald	2013	Blackwater & Moura	16.1	2.1	18.2	Expenditure approved August 2014.
Marcia	2015	Moura	4.0	4.4	8.4	Operating expenditure approved in December 2016 and capital expenditure under review.
Debbie	2017	All Systems	16.9*	TBD	TBD	Operating expenditure submitted to QCA for approval in September 2017.

*Post-escalation amount of \$17.4m

Competition between electric and diesel locomotives

The cost of using electric locomotives relative to diesel locomotives has increased as a result of lower diesel prices and significantly higher electricity prices, as illustrated in Figure 27. This has led to a prospective H1FY2018 electric charge (EC) tariff increase by 46% above FY2017 EC rates.

If electric locomotives remain uncompetitive it is likely their use in future customer contracts will decline. As a consequence, the AT5 tariff which reflects the fixed cost of the overhead electrified network spread over all electric traction users, would also increase and may drive unsustainable AT5 tariff increases over time. Ultimately this could lead to potential asset stranding of both electric fleet and overhead electrified networks and reduce the current GHG emissions benefit achieved through operation of electric compared to diesel locomotives.

Recognising this risk, Aurizon Network is seeking to change the current access pricing for electric locomotives to avoid potential asset stranding. Aurizon Network will submit an Electric Traction Pricing Draft Amending Access Undertaking (2017 Electric Traction DAAU) in October 2017 and seek industry consultation with the QCA.

The 2017 Electric Traction DAAU seeks minimal socialisation of any under recovered electric revenue, which arises where electric utilisation declines relative to forecast. This proposal will help prevent an escalating AT5 price and provide for appropriate payments from all users.

DID YOU KNOW?

\$1.7 BILLION

- Approximately \$1.7 billion is invested in electric locomotives (all rail operators) and overhead track infrastructure (Aurizon Network).

13% LOWER GHG EMISSIONS

- Electric locomotives have 13% lower GHG emissions relative to diesel locomotives (per gross tonne kilometre travelled) and this margin is likely to improve as the GHG intensity of Queensland electricity generation declines with increased renewable energy use.

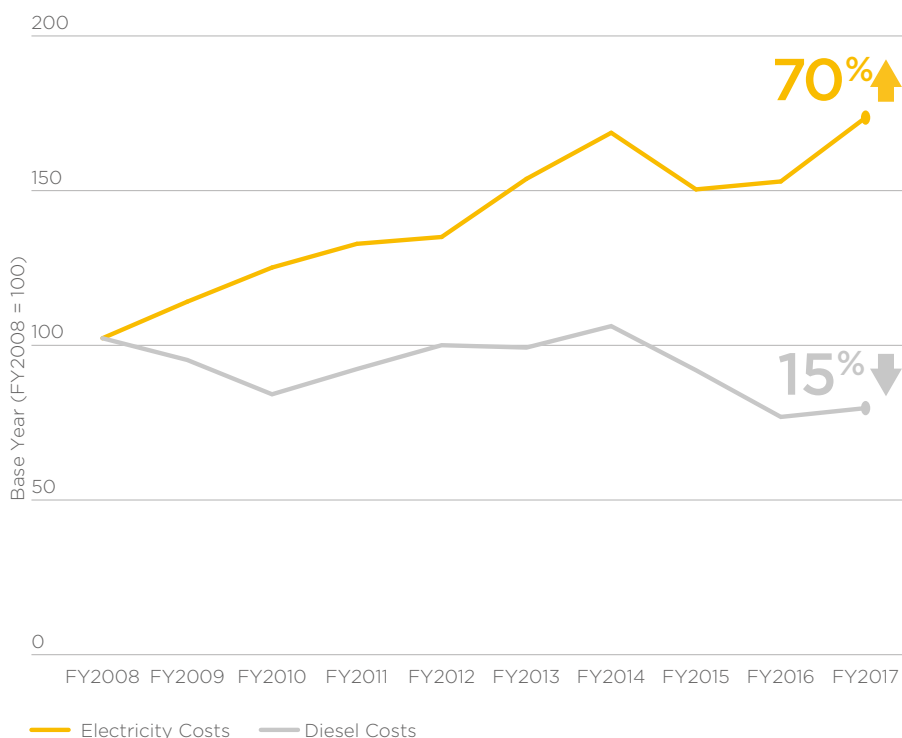
↓100 MILLION LITRES OF DIESEL

- There are more than 170 active electric locomotives operating on the CQCN consuming the equivalent electricity demand of 500,000 electric vehicles and displacing the need for approximately 100 million litres of diesel annually.

170 ELECTRIC LOCOMOTIVES = 500,000 ELECTRIC VEHICLES

- To reduce the same amount of GHG emissions with 500,000 Tesla 3 electric vehicles it would cost twice as much (\$3.4 billion). Based on 500,000 Tesla 3s at \$62,000 each and a public network of 1,500 (8 stall) Tesla superchargers at \$200,000 each.

FIGURE 27 — ELECTRIC AND DIESEL BENCHMARK COSTS



Source: Diesel Terminal Gate Price based on Brisbane AIP data.
Electricity Costs: Queensland Productivity Commission (QPC) Electricity Pricing Inquiry electricity pricing

AUSTRALIAN POLICY IMPERATIVES

Government policy should promote the global competitiveness of Australia's export supply chains and efficient domestic freight networks. Policy decisions have a significant impact on the economic sustainability of company operations.

In addition to the specific priorities for our regulated Network business, there are a number of current policy issues that have substantial commercial and economic implications for Aurizon, our customers and for the communities in which we operate, including employment impacts.

We engage with Federal and State Governments on these priorities with a focus on improving supply chain outcomes. This includes preparing submissions and position papers and meeting with elected representatives and departmental officials to advocate our views.



Facilitating infrastructure investment

Private sector investment in new infrastructure is hampered by complex planning and approval processes, which results in substantial costs.

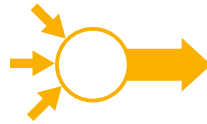
Our view is that there would be greater investment in new resource projects and the associated supply chain infrastructure if reasonable time limits were clearly set and adhered to.

In addition, we believe that greenfield investment policies should maximise the use of existing infrastructure when this offers improved supply chain efficiency and wider community benefits, including improved safety and environmental outcomes. Aurizon's Galilee Basin rail infrastructure proposal is an example of how this could be achieved.

Public sector funding of infrastructure also has an important role in developing supply chains for Australia's exporting and domestic industries where the investment required to construct the infrastructure would not generate a commercial return.

Currently the Melbourne to Brisbane Inland Rail Project has the potential to generate significant economic, environmental and community benefits. However, to enable rail to compete equally with road operations, major land transport policy reform is required and should include:

- cost-reflective heavy vehicle pricing reform; and
- complementary infrastructure to link the Inland Rail with other rail and road networks.



Improving existing supply chains

Bulk freight operations generate vital investment and jobs in many regional and remote towns and communities. The competitiveness of bulk rail freight services on regional networks is currently impeded by:

- Declining infrastructure performance; and
- Different pricing for rail freight compared to road, which results in trucks paying substantially less for access.

Our view is that industry and governments should work together to identify and allocate infrastructure program funding to improve the standard of regional infrastructure.

Priority projects include improvements in the capacity and efficiency of freight connections to the Port of Brisbane and Port of Newcastle, and improving the Mt Isa to Townsville corridor. We note in particular the lack of coordinated investment on the Mt Isa to Townsville line, which has contributed to significant volumes moving to road transport.

Land transport policy reform, including the introduction of consistent heavy vehicle and rail access charging, are equally important to existing supply chain networks and should be accelerated. Reform priorities should also include:

- Introducing the independent price regulation of heavy vehicle charges; and
- Prioritising short-term actions to remove the differences in access charges between road and rail on key long-haul corridors.



Energy and emissions policies

We are **one of the largest energy consumers in Queensland**, operating a 2,000km heavy haulage electric traction rail network. Reliable and affordable electricity is not only important for us, it is critical for our customers who compete globally. Agriculture, mining and minerals processing sectors in Australia accounted for more than 15% of total energy use in FY2015¹.

We support the principles outlined in the **Finkel Blueprint**² for the national electricity market, including:

- Improving the reliability and security of supply;
- Making electricity more affordable; and
- Providing greater certainty to industry with a clear and consistent long-term emissions reduction target.

In addition, energy policy solutions should facilitate the use of all technology options, including high efficiency low emission coal technology. Therefore, we also propose **a technology-neutral approach**, including for emissions reduction measures.

In relation to diesel emissions, there is a risk that future changes to regulation could impose additional costs on the rail freight industry. With this in mind, we are working with other rail freight operators to develop and introduce **industry-led solutions to managing emissions**, while ensuring that the environmental benefits of using rail freight compared to road can be realised.

¹Department of Industry, Innovation and Science (2016), Australian energy update 2016, Canberra. Tables 3.3, 3.5 and 3.6.

²Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future, June 2017, Expert Panel Chaired by Chief Scientist, Dr Alan Finkel AO



People

Our greatest asset is people — working together to safely and efficiently operate complex supply chains.

Q&A with
Tina Thomas
(Group Executive,
Corporate)



WHAT EXTERNAL FORCES ARE SHAPING AURIZON'S WORKFORCE STRATEGY?

Aurizon is entering a period of increasing competition with significant coal contract renewals beyond 2020. We have already been impacted by legacy enterprise agreements that reduced our competitiveness in Bulk and Intermodal and we need to be proactive in our Coal business to ensure we can meet customer expectations. More broadly, the pace of technological changes will require the right capability to deliver better service performance for our customers.

WHERE DOES AURIZON NEED TO FOCUS?

Principally, we need to focus on flexibility and responsiveness of our workforce to meet the needs of our customers who are responding to uncertainty in commodity markets. To ensure we continue to deliver, we also need to improve how we engage with employees and provide them support through technology and training.

HOW IMPORTANT ARE AURIZON'S VALUES?

Aurizon's values drive the behaviours we expect from our employees and contractors. **SAFETY** is our number one priority. Our focus on **PEOPLE** helps us work together to combine skills and resources effectively whilst **INTEGRITY** is essential for us to deliver consistently, building trust inside and outside the organisation. **CUSTOMERS** are at the heart of our business and drive improvements in our capability to achieve our value of **EXCELLENCE**.

WHAT IS THE NEXT STEP ON AURIZON'S PEOPLE JOURNEY?

We need leadership and culture that drive accountability and inclusiveness to improve our core capability and keep innovating. Ultimately, effective leadership and collaboration within our teams will enable us to broaden our way of thinking, challenge the status quo and continue to improve our inclusiveness and diversity.



EMPLOYEE RELATIONS

Globally, nationally and regionally, there are less stable labour markets and more intense competition, which puts a premium on agility and flexibility. The mining industry has been working to be more flexible for a decade and the agriculture sector is quickly catching up, so the rail industry must also continue to adapt. Without change, it will be difficult for Aurizon to retain and win new business.

Aurizon will increasingly need to rely on people capability sourced and engaged in a variety of ways. This will require Aurizon to transition to working flexibly with more third parties. Critical to this transition is our ability to influence all workers to share our values and commit to ZEROHarm.

Business restructuring is an evolving process that shapes organisational capability around our customer needs. Aurizon takes a long-term view and endeavours to consider options that limit impacts on employees where possible. If operations have excess capacity or no longer fit our business strategy, we will look to transfer ownership and maintain employment opportunities. If closures are required, we ensure that adequate notice periods and provisions for consultation are provided. Where headcount reductions are necessary, we seek redeployment, offer redundancy and provide outplacement support.

In June 2017, we made the decision to close the Rockhampton rollingstock workshop and redeploy some of our workforce to other maintenance facilities. Much of this change has been driven by the success of predictive technologies and automated inspections that have reduced maintenance work required. We recognise the concern employees have with these decisions and acknowledge the right of employees to seek representation on these matters.

FREIGHT REVIEW OUTCOME

On Monday, 14 August 2017, we announced the exit from our Intermodal business through a sale and closure process. We understand this decision will be difficult for affected employees who have worked hard to build a business of scale. Pending regulatory approvals, this sale process should maintain employment in Queensland Intermodal and avoid the alternative which is a shutdown of operations.

Approximately 350 Aurizon employees in Queensland Intermodal will transfer to the Pacific National and Linfox consortium, and 30 employees at the Acacia Ridge terminal will transfer to Pacific National.

Unfortunately, we found no other choice but to close our Interstate Intermodal business. Aurizon will close the remainder of its national intermodal business outside of Queensland by the end of 2017 calendar year. A consultation process, including respective redundancy and entitlements provisions, will commence with the 250 employees impacted by the closure of the interstate business. Where possible, opportunities for redeployment will be considered.

ORGANISATIONAL CAPABILITY

Aurizon's performance is built upon individual efforts that combine to achieve organisational outcomes. We are cascading individual goals and targets through the organisation to provide accountability and incentivise behaviour in line with our values of people, integrity and excellence. This will be supported by the right mix of technology and cultural change so that quality and frequent feedback can enhance individual development. Where possible we will track progress online through automated workflows to provide transparency and encourage collaboration. Last year, we mentioned the following enterprise-wide initiatives, which have now been implemented to lead this change:

- **Aurizon Way of Leadership** – The Aurizon Way of Leadership has provided 184 of our leaders with 360o feedback on their leadership style, coaching to address skill gaps and other development opportunities. This framework focuses on role modelling, accountability, disciplined process execution and collaboration.
- **People-Centred Change** – 87 Aurizon coaches have been trained through a three-day intensive People-Centred Change program to manage people risks when introducing new technology, restructuring our teams or updating processes. Regardless of how big or small the organisational change, it is important we consider how it impacts our people.

INCLUSIVENESS

Aurizon strives to create an inclusive work environment, which attracts all people regardless of potential or perceived differences. We respect the sexual orientation of our employees, pay attention to improving gender diversity and promote inclusion of indigenous peoples.

ALLin

This year marked the second anniversary of Aurizon's lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) and Allies Network – ALLin. Since inception, more than 300 employees have joined ALLin across all major sites and helped create a safe and respectful environment in Aurizon where everyone can bring their whole self to work. A snapshot of FY2017 activities include:

- Developed Transgender Guidelines (presented at Aurizon International Women's Day conference).
- Maintained Bronze status of Australian Workplace Equality Index (AWEI).
- Participated in the Brisbane Pride March for the first time wearing branded Aurizon work wear.
- Avoided closure of the transgender Brisbane youth program at Open Doors Youth Services through a contribution from Aurizon's Community Giving Fund.



Gender

We continue to progress towards our aspirational target of increasing the number of women in the workforce to 30% by the end of 2019. During FY2017, we have increased the percentage of women to 19.8% (up from 11.7% in FY2011), as illustrated in Figure 28. This has been driven by a number of factors such as doubling the proportion of women recruited externally from approximately 25% to 50% and trebling the proportion of female graduates from 25% to 75%.

While we still have a challenging couple of years ahead to increase momentum we are happy to report that more than 20% of senior executives and managers are now female and South Queensland has surpassed our enterprise target of 30%.

We have aligned Aurizon's Diversity & Inclusion Strategy to four strategic levers shown in Figure 29.

A key aspect of recruitment and retention is eliminating the gender pay gap that exists between male and female employees. This year, Aurizon's gender pay gap increased from 12.2% to 14.4%. The reasons for the gender pay gap are varied and complex. For Aurizon, the pay gap comes down to the concentration of one gender in different occupations, as well as where we are in progressing women through our leadership pipeline.

We also do not shy away from the reality that Aurizon's pay gap exists, at least in part, due to the way unconscious bias influences how we value individuals and roles performed by men and women. Some of these issues are imported into Aurizon because we operate within a labour market influenced by these issues.

Aurizon continues to work toward greater gender diversity across all roles in the company and this will reduce the gender pay gap. We also undertake like-for-like role analysis at every stage of recruitment, promotion and annual review to moderate the effects of gender bias in valuing roles and individual performance.

If you wish to seek more information on our workforce composition, please read our 2016-2017 Workplace Gender Equality Agency report. We note that targets alone are not the goal of a diverse and inclusive workforce but rather the improved capability and business outcomes we gain in the process.

FIGURE 28 – FEMALE REPRESENTATION

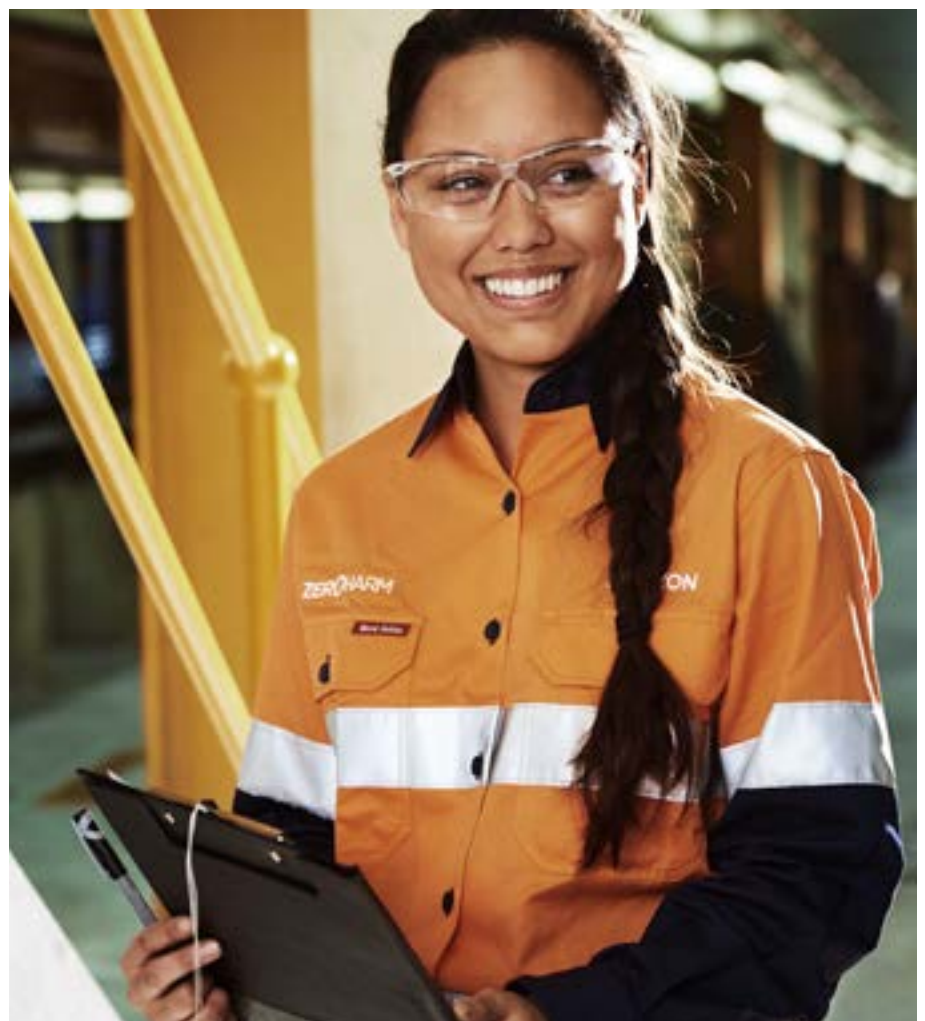
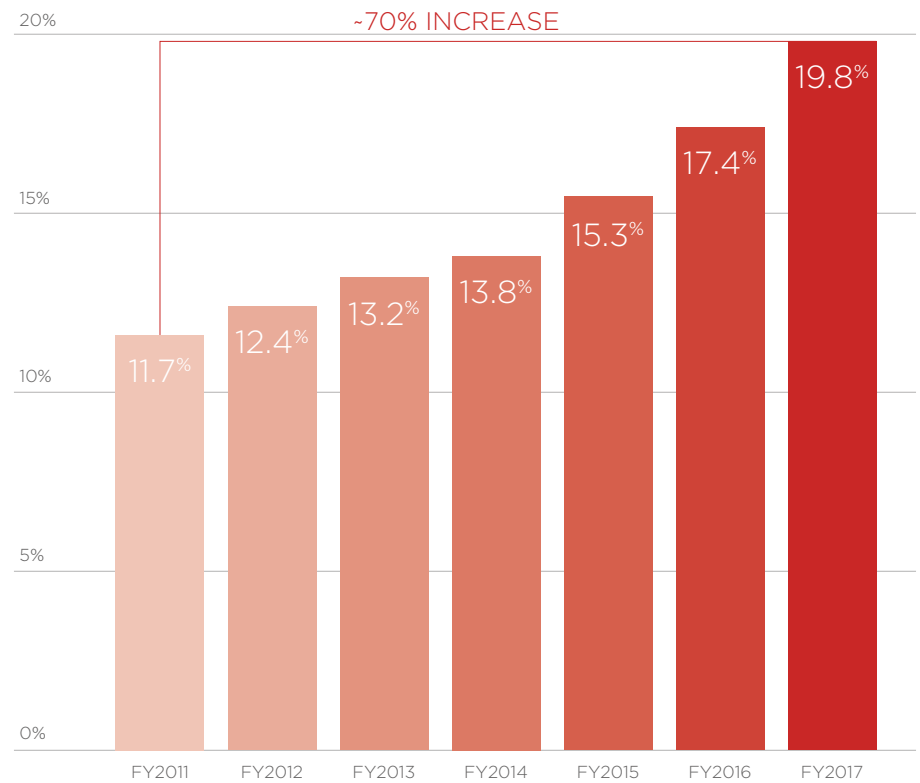


FIGURE 29 — FOUR STRATEGIC LEVERS FOR DIVERSITY AND INCLUSION



Indigenous

At Aurizon, our vision is to create and provide sustainable employment opportunities and skill development strategies for Aboriginal and Torres Strait Islander peoples and raise employee awareness of their culture. Since we released our Reconciliation Action Plan (RAP), our Indigenous representation has increased from 4.3% to 4.8%, and is representative of the communities where we operate.

We have also been able to achieve much higher rates of Indigenous recruitment for new customer contracts, such as our team that is based at AGL Macquarie's state-of-the-art coal unloading facility in Antiene.



We have a newly established team responsible for running coal rail services, managing the rail infrastructure, operating the coal unloader and managing key maintenance contracts. What really encourages me, and sets the team up for success is its diversity. 30% of the workforce is female and 15% identify as Aboriginal or Torres Strait Islander. Each team member has brought unique perspectives and experience to the workplace, and they are all working together to deliver great results.



CATHERINE BAXTER
GM Coal Operations
(New South Wales and South East Queensland)

While we have made progress through recruitment, we are still challenged by higher rates of indigenous turnover and need to further integrate our indigenous employees and recognise their communities. In the last few months, we announced four major Indigenous engagement and employment programs:

- Indigenous Outreach Mentoring Program to provide new employees and their managers with support, advice and support retention.
- Indigenous Cultural Protocols to guide employees on how we respect and reinforce Indigenous cultural diversity.
- Recognition of Indigenous custodianship of the land on which we operate by encouraging local leaders at every worksite to engage with local Indigenous communities and understand how we can acknowledge custodianship.
- CareerTrackers 10x10 program signed by Aurizon which commits us over 10 years to providing five internship positions each year for Indigenous students within the CareerTrackers Indigenous Internship Program.

We are continuing to build on current initiatives, holding a second round of our Indigenous Future Leaders Program and launching the third phase of our Stand Up, Speak Up campaign to focus on calling out non-inclusive behaviours towards indigenous colleagues. In December this year, we will also review our current RAP and commence works towards a new RAP to advance our commitment to reconciliation.

RECOGNITION

We have been recognised with the following diversity awards in FY2017:

- 2016 AHRI Gender Diversity Champion (Darren Hooper).
- 2016 Australian Women in Resources National Awards – Excellence in Company Programs and Performance.

Environment

Our environment vision is to deliver sustainable value through effective management of material environmental risks and improved Enterprise environmental performance.

This chapter focuses on clean air: minimising diesel, greenhouse gas and coal dust emissions. We also explain how we avoid or offset impacts on native biodiversity and minimise waste to landfill. For information on carbon disclosure and managing noise, please refer to [Strategic planning: climate change considerations for our business and managing our Impacts](#).

CLEAN AIR

Diesel Emissions

The local communities in which we operate have some of the best air quality in the world⁸ and locomotive diesel emissions are a relatively insignificant contributing source to local air quality. For example, locomotives contribute less than 1 per cent of Particulate Matter (PM)⁹ in the greater Sydney, Newcastle and Wollongong regions, known collectively as the Greater Metropolitan Region. Regardless, Aurizon remains focused on contributing to improvements in air quality associated with our locomotives through reducing diesel consumption, using cleaner diesel, operating electric locomotives and promoting rail over road freight.

Australian freight rail operators are also voluntarily developing an industry-led approach to locomotive diesel emissions. The industry approach is prioritising both PM and greenhouse gas (GHG) emissions reductions, while being careful not to decrease fuel efficiency in pursuit of greater nitrogen oxide reductions. This potentially negative impact was highlighted by the New South Wales Environmental Protection Agency locomotive upgrade trial in 2015. It demonstrated that if both Particulate Matter and nitrogen oxide were reduced, GHG emissions increased.¹⁰

Greenhouse Gas

In FY2017, Aurizon's total GHG emissions (Scope 1 and 2) were 1,054 ktCO₂e, representing a 3.4% reduction from the previous year. As illustrated in Figure 30, approximately 93% of Aurizon's total GHG emissions relate to the operation of our locomotive fleet (approximately two-thirds related to diesel locomotives). Aurizon also recognises more than 120 ktCO₂e of indirect Scope 3 GHG emissions annually through our CDP response. These emissions predominantly relate to supplier activity such as diesel delivery, electricity transmission, waste services and employee air travel, not owned or controlled by Aurizon.

We are targeting a 15% reduction in the GHG emissions intensity of our locomotive fleet by FY2020, from a FY2015 baseline. As illustrated in Figure 31, no progress was made during FY2017. Further commentary on our progress to reduce energy use is provided in our Operating Efficiency section.

FIGURE 30 — AURIZON'S GHG PROFILE

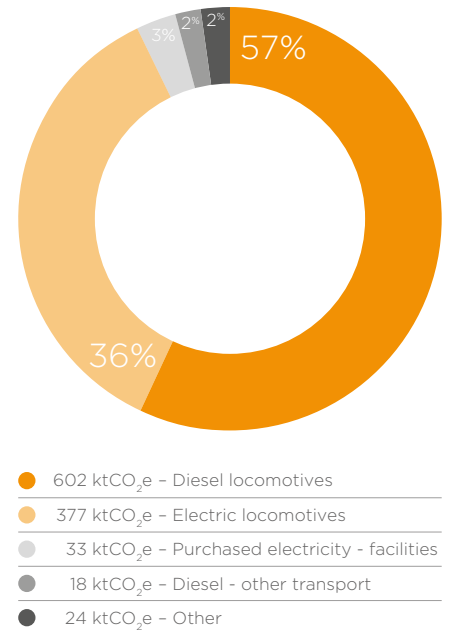
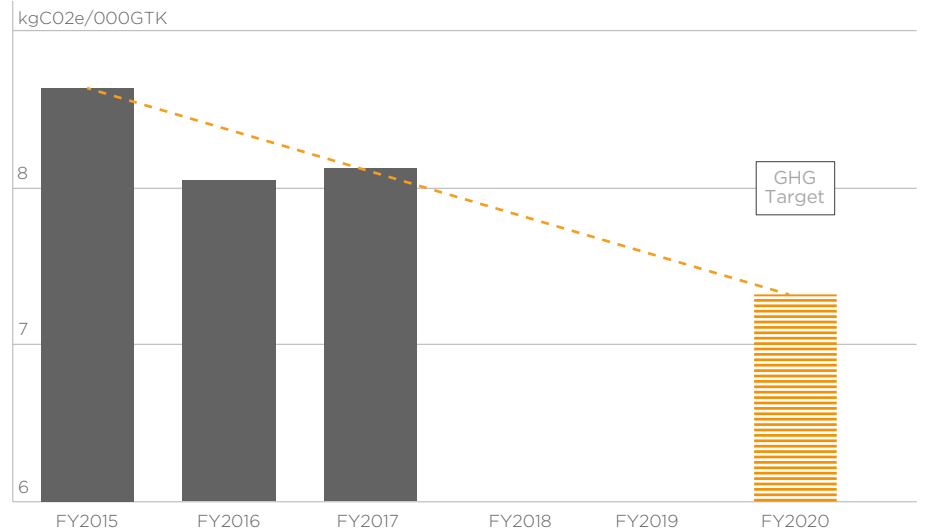


FIGURE 31 — HISTORICAL AND TARGETED GHG EMISSION INTENSITY REDUCTION



⁸ Global ambient air pollution: World Health Organisation Guideline values (annual mean)

⁹ NSW Air Emissions Inventory for the Greater Metropolitan Region in New South Wales 2008, Table ES4.

¹⁰ NSW EPA website: Diesel locomotive fuel efficiency and emissions study

COAL DUST

We recognise the importance of working collaboratively with our supply chain partners to minimise coal dust emissions associated with our coal haulage operations across the three different coal supply chains that we operate. As part of this, we continue to actively participate in rail coal dust studies and forums, lending our knowledge and expertise to understand how the latest research findings can assist with minimising our potential impact on the community. In addition to the world-leading solutions tailored to suit the needs of each coal supply chain outlined, we have developed a suite of educational documents to improve the understanding that rail coal dust usually forms only a very small part of dust perceived as ‘coal dust.’

Central Queensland Coal Network (CQCN)

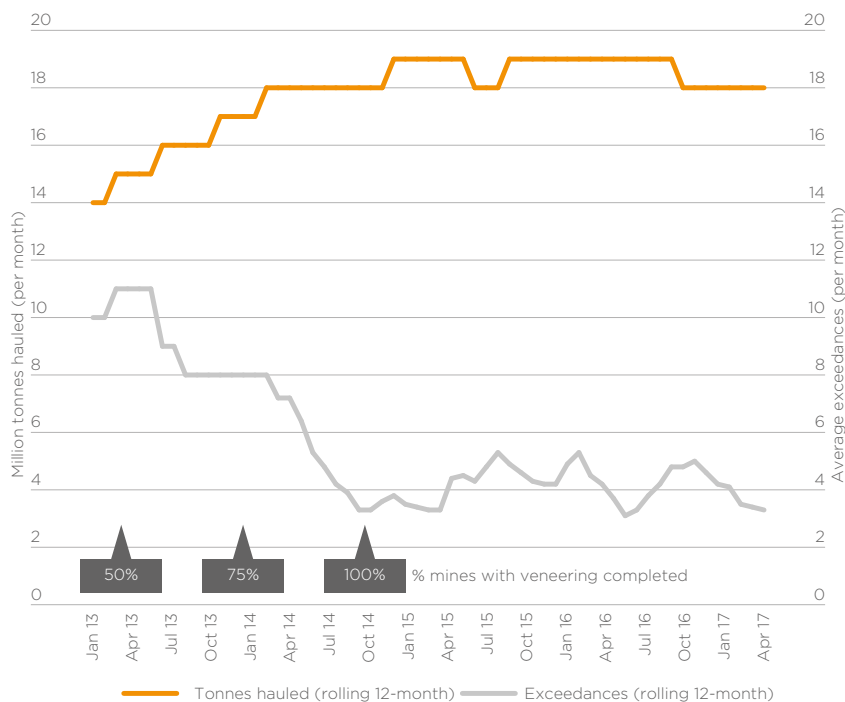
Aurizon led the development of the CQCN Coal Dust Management Plan (CDMP) which outlines a suite of control measures implemented across the supply chain to reduce rail coal dust emissions. As part of these measures and in agreement with the Department of Environment and Heritage Protection (DEHP) we have an opacity monitoring point on each of the four rail systems in the CQCN. Figure 32 demonstrates that despite hauling higher tonnages of coal on the CQCN, opacity exceedances have declined from an average of 10 per month when only half of mines had veneering installed, to around four per month when all mines had veneering installed.

In FY2017, the four opacity monitors on the CQCN registered 39 exceedances at the 5% opacity threshold agreed with the Queensland environment regulator. This equates to less than 0.1% of more than 40,000 coal train movements. Albeit a small number of exceedances, Aurizon remains committed to investigating each one.

WHAT IS VENEERING?

Veneering is the application of an environmentally safe and biodegradable polymer to the surface of loaded coal wagons. This polymer forms a hardened crust which helps prevent dust lift-off from the loaded coal in transit.

FIGURE 32 – COAL TRAINS EXCEEDING THE OPACITY THRESHOLD IN THE CQCN VS TONNES HAULED



South West System, Queensland

On the South West System in Queensland, Aurizon continues to work with the South West User Group (SWUG) to implement the controls listed in South West System Coal Dust Management Plan¹¹. In addition to the control measures outlined in the SWS CDMP, the SWUG has committed to monitoring coal dust along the Western-Metropolitan rail system into 2018.

Coal dust monitoring in the South West System has been undertaken by the Department of Science, Information Technology and Innovation since 2013 and has consistently demonstrated that rail transport, including coal haulage, is compliant with air quality criteria along the South West System. The monitoring results are subject to an independent review and consistently demonstrate that coal dust represents only a small percentage of dust generated along the corridor.

In addition, following publication of the initial monitoring report, Queensland Health concluded that ‘... for people living along the corridor, the dust concentrations measured during the (2013) investigation are unlikely to result in any additional adverse health effects.’

Hunter Valley, New South Wales

In the Hunter Valley, Aurizon continues to work with our supply chain partners on coal dust improvements along the rail corridor. Aurizon actively participates in a number of industry forums and has implemented a number of control measures including a focus on coal wagon design to mitigate the potential loss of coal from our wagons. The New South Wales Minerals Council prepared a summary of measures implemented by the supply chain in the Hunter Valley to minimise rail associated coal dust.

Air Quality Monitoring of dust levels is being undertaken in the Upper Hunter Valley at the Port of Newcastle by the New South Wales Environment Protection Authority and real-time data is available on their website.

¹¹ Western – Metropolitan Rail Systems Coal Dust Monitoring Program, Final Report, October 2013. DSITIA.



BIODIVERSITY

When planning our projects, and conducting our operations, we seek to avoid adverse impacts on native biodiversity. We do this by adopting the principles of ecologically sustainable development through implementation of our Environmental Planning and Assessment Procedure. Where required we also compensate for native vegetation affected by the development. For example, in September 2016, Aurizon successfully offset approximately 31 hectares of native vegetation affected by construction of our Hexham Train Support Facility in the Hunter Valley. The offset vegetation associated is protected, managed and monitored in perpetuity in accordance with the New South Wales Government's BioBanking Scheme.

COMPLIANCE AND REPORTING

In FY2017, Aurizon did not incur any monetary fines or sanctions for non-compliance. However, two notifiable environment incidents were required to be reported to the regulator. Both incidents involved diesel spills and were appropriately remediated with no further ongoing remediation effort required (see Table 9).

TABLE 9 — NOTIFIABLE ENVIRONMENT INCIDENTS IN FY2017

LOCATION	VOLUME	MATERIAL
Snowtown, South Australia	Up to 2,000 litres	Hydrocarbon
Mt Isa, Queensland	Up to 350 litres	Hydrocarbon

WASTE

Last year, we identified total waste generated as well as quantities recycled or reused. This year, we have identified further opportunities as part of our plan to understand the amount of waste we generate and increase the proportion that is recycled or reused. Figure 33 details the proportion of hazardous and non-hazardous waste that is recycled or reused as opposed to being treated, incinerated or sent to landfill.

Table 10 provides a summary of recycling and reuse activities by major waste types.

FIGURE 33 – WASTE MANAGEMENT AND RECYCLING ACTIVITIES (TONNES)

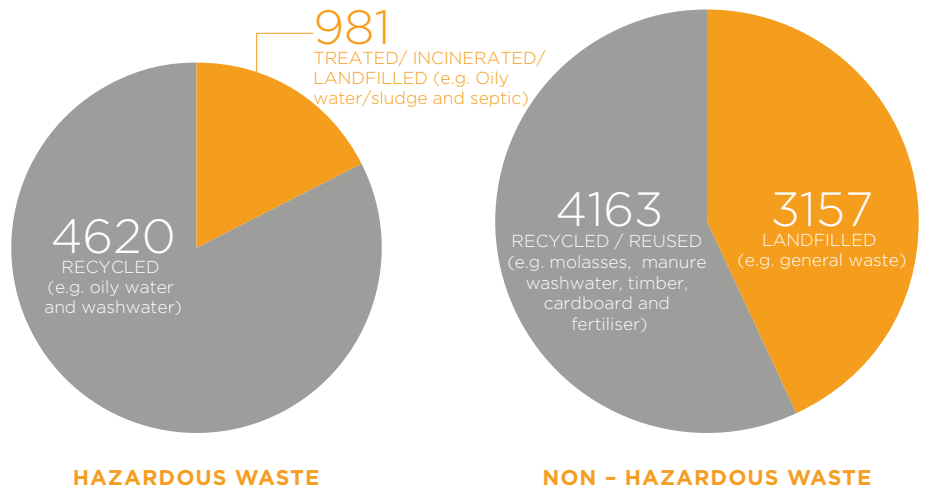
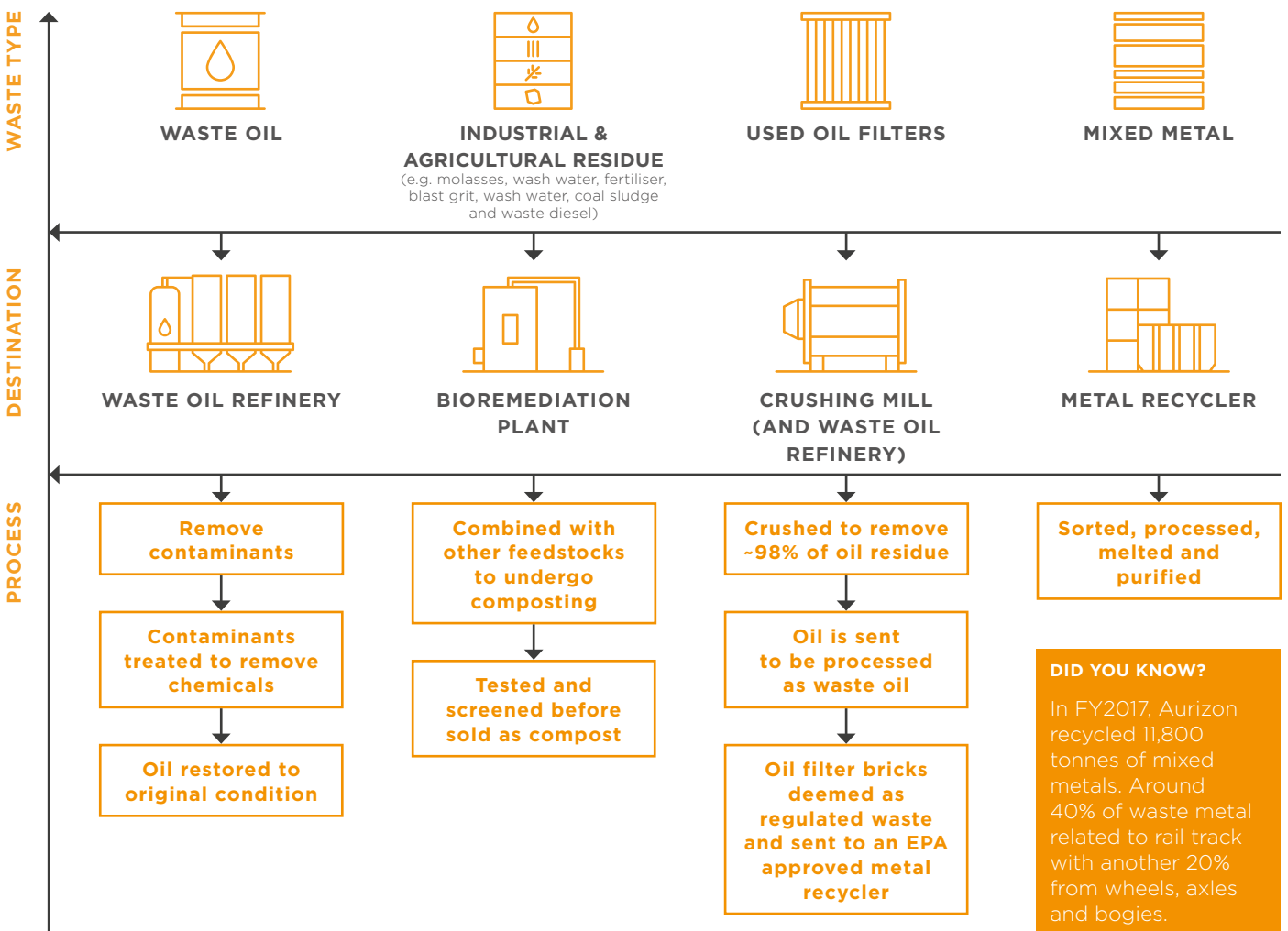


TABLE 10 – RECYCLING AND REUSE ACTIVITIES



Community

We aim to build sustainable positive relationships and legacies in the communities where we operate and where our people live and work.

ENGAGING WITH OUR COMMUNITIES

At Aurizon, involvement in the communities where our employees live and work is embedded in the way we plan and operate. Over the years, we have enabled all employees to play a part in delivering this commitment through a better understanding of Aurizon's economic contribution value and social impacts.

We recognise our social licence to operate is built upon a mutual understanding of obligations and responsibilities between Aurizon and the community. For this to be sustainable, it also needs to be supported by a commitment to deliver value in the communities where we operate.

COMMUNITY CONTRIBUTION

While our business continues to change to adapt to the competitive markets in which we operate, we still remain a significant employer in regional communities.

Our biggest footprint is in regional Queensland where we employ more than 3,000 people supporting our above rail operations and the running of the Central Queensland Coal Network.

For this year's Sustainability Report, we commissioned Ernst & Young to update their 2015 report on our 'Economic Contribution Analysis' to better understand how our operations contribute to Queensland's regional communities.

A key insight from this analysis is that through our operations, we contribute more than 6,100 direct and indirect jobs and more than \$2 billion of output for Queensland's regional economy, as illustrated in Figure 34.



\$1,186M

spent by Aurizon on suppliers, accommodation & other services



\$628M

spent by employees on groceries, medical services and other goods



\$457M

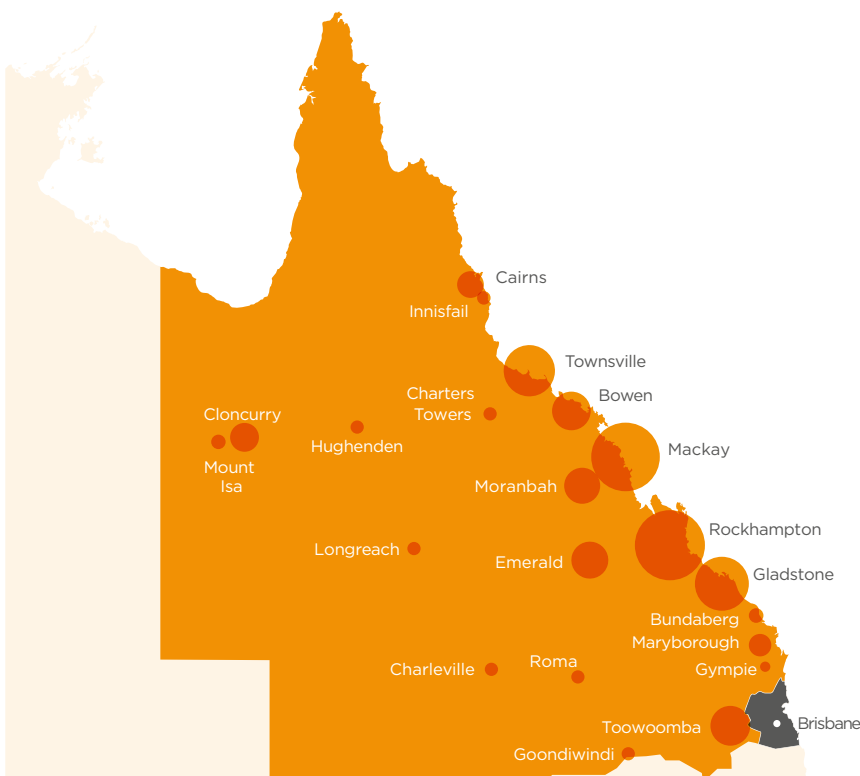
spent by Aurizon's suppliers on equipment hire, rent and labour



\$2,271M

of output for Queensland's regional economy (equivalent to \$1,057 million of value add)

FIGURE 34 — AURIZON'S REGIONAL QUEENSLAND WORKFORCE AND ECONOMIC CONTRIBUTION





COMMUNITY GIVING

A further example of our involvement is Community Giving. It is important for Aurizon to support local community groups and to give back where we can. Aurizon has established the Community Giving Fund, a cash grant program supporting not-for-profits, local sponsorships and donations. During FY2017, 41 charities in the areas of health and wellbeing, community safety, education and environmental initiatives received cash grants as part of our regular giving program. This year, we also introduced a special round of the Community Giving Fund to help rebuild and recover communities devastated by Tropical Cyclone (TC) Debbie. Aurizon opened this program to applicants within a week of the storm passing and announced 15 additional recipients in July 2017.

Some recent examples of giving fund recipients in FY2017 include:

- **GivIT Disaster Recovery.** To purchase items locally for vulnerable residents in Queensland communities including Bowen, Proserpine, Mackay and Rockhampton affected by the cyclone.
- **Role Models and Leaders Australia.** Launch of the Esperance Girls Academy to support more than 50 Indigenous girls to complete their secondary school education.

Over the next two years, we will be investing in upgrading our regional rail depots at Jilalan and Cloncurry and conducting a major refurbishment of our administration building in Rockhampton.

Some of our Brisbane based roles will also be relocated to regional centres to be closer to our operations. As an example, our Group Executive for our Coal Business has relocated to Mackay to be closer to our Queensland above rail coal operations, along with some of the supporting functions for this part of the business.

Based on average remuneration, Ernst & Young estimates that every metropolitan based employee transferred to a regional location has the potential to contribute \$250,000 value add to the regional economy each year.

As part of Ernst & Young's analysis, we asked them to focus on our impact in Central Queensland's Rockhampton Region, which is the largest regional centre. The assessment was developed over the period FY2015 to FY2019 based on historical and planned changes in our operations including the closure of the Rockhampton workshop.

The analysis estimates that in FY2019, Aurizon will continue to contribute more than \$400 million to Rockhampton's economy.

ROCKHAMPTON WORKSHOP

The Rockhampton workshop was established in 1870 and represents an important part of local history. The heritage-listed roundhouse is largely preserved, and we will work with governments at all levels to support its integration into future developments for the community.

In collaboration with The Salvation Army, Aurizon donated 37 homes in regional areas of Queensland including Emerald, Moranbah, Cloncurry and Dysart. One of the most significant philanthropic contributions that Aurizon has undertaken occurred late in 2016. In addition to the social value generated, this donation has also demonstrated the commercial value of reducing maintenance and security costs related to surplus properties in our portfolio.



37 HOMES



UNDERSTANDING OUR IMPACTS

We recognise that an important part of our community engagement is how we listen to community feedback. We monitor community concerns across a range of issues such as rail noise, road safety and rail corridor concerns and work with other rail network providers and rail operators to manage impacts.

Aurizon engages in dialogue with a wide range of stakeholders. For example, during the past year our senior management met with stakeholders from various environmental groups including the Australian Youth Climate Coalition, 350.org, Market Forces and GetUp!. We support direct engagement and respect that everyone has the right to express their opinion. However, we condemn protests that jeopardise the safety of the public and our employees.

In FY2017, we received a total of 250 community complaints, an increase of 15% on FY2016. Most concerns raised in FY2017 related to rail noise, rail corridor management and employee driver behaviour as illustrated in Figure 35.

TABLE 11 – FY2017 COMPLAINTS PERFORMANCE

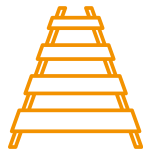
STATUS OF ENQUIRY	TOTAL	1-3 DAYS	4-10 DAYS	>10 DAYS	% OF TOTAL
Closed	177	125	33	19	71%
In progress	73	0	45	28	29%
Total	250	125	78	47	100%
% of total		50%	31%	19%	

Table 11 shows the timeline for resolution of community concerns in FY2017. 71% of complaints were resolved by the end of FY2017 (compared to 93% in FY2016). Reasons for this increase include more complaints and issues raised relating to noise that required further engagement to resolve.

FIGURE 35 – FY2017 COMMUNITY COMPLAINTS RECEIVED



93
NOISE



36
RAIL CORRIDOR



32
ROAD SAFETY



14
AIR QUALITY



17
FACILITIES



9
LEVEL CROSSINGS



9
TRAIN OPERATIONS



8
PROJECT IMPACTS



5
LAND IMPACTS



27
OTHERS

TOTAL COMPLAINTS

250





MANAGING OUR IMPACTS

Rail Noise

We endeavour to minimise various sources of noise associated with our operations through engineering and operational solutions without compromising mandatory safety requirements

The use of the klaxon (also referred to as the horn or the whistle) continues to be the source of most rail noise complaints. However, the sounding of the klaxon is a critical and mandatory safety requirement that must be adhered to by any train service traveling on any network and applies 24-hours a day, seven days a week. Aurizon aims to balance the need for a safety warning with consideration for residents living close to the rail line.

We investigate all other rail noise concerns raised directly to us via our community contacts like wheel squeal, noise from wagons and locomotives, and from our train operations. We work with other rail operators to manage these impacts as a whole of supply chain approach and in collaboration with industry and government.

Concerns relating to the CQCN Rail Corridor

We make continuous improvements in the CQCN rail corridor through regular asset renewal and maintenance programs to improve its safety and integrity.

Aurizon engages with adjoining landholders and residents to the rail corridor to deliver an ongoing schedule of rail asset renewals and maintenance to ensure the efficient and safe operations of the rail network. Their concerns are often with issues like fencing, fire control and vegetation management. Aurizon has put in place processes to assess these concerns and escalate for actions if required.

We have completed a Land Access Protocol detailing the Aurizon standards and commitments when entering and using private land that recognises the rights and obligations of both Aurizon and landholders. It states thirteen core commitments when undertaking activities on private land that demonstrates mutual respect and courtesy.

On-Road Safety

Safety is our number one priority; safety to the community and our employees.

On an average day, Aurizon has 1,500 vehicles on the road from passenger vehicles to trucks, all bearing the Aurizon logo. In FY2018, all new Aurizon fleet will have safety messaging bumper stickers affixed to the rear of all vehicles. Community members understand the importance of safety at Aurizon and notify us when employee driver behaviour is not meeting our core value of safety. Every call is investigated with data from the In-Vehicle Monitoring System and driver interviews. Action is taken as required based on outcomes of investigations.



Tax at Aurizon



MESSAGE FROM THE CFO



As an ASX-listed company predominantly operating in Australia and an industry leader, Aurizon understands the importance of tax transparency. Aurizon has continued to have a positive, open and constructive relationship with the ATO and continues to voluntarily adopt the Tax Transparency Code, demonstrating our commitment to paying our fair share of tax. This year's Sustainability Report includes:

- A summary of taxes paid and collected by Aurizon;
- An overview of Aurizon's approach to tax strategy, tax policy and governance; and
- An explanation of the tax disclosures in the financial statements.



PAM BAINS

CFO & Group Executive Strategy

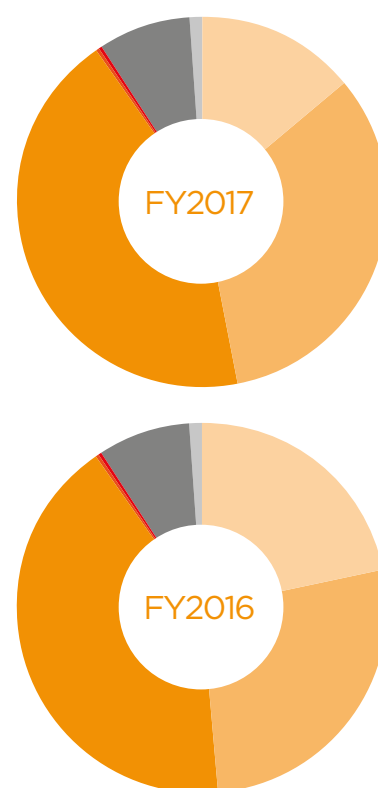
TAXES PAID AND COLLECTED

Aurizon pays various taxes to Federal, State and Local governments and collects various tax payments on behalf of Federal and State governments.

As demonstrated in Figure 36, Australian corporate income tax represents the largest component of taxes paid by Aurizon. Corporate income tax is payable in instalments throughout the income year, with a balancing payment made in the December following the end of the income year to reflect the final income tax liability for that income year. The corporate income tax represented in Figure 36 reflects taxes paid in respect of the income year, rather than taxes actually paid during the income year.

As demonstrated in Figure 36, taxes collected in respect of employees represents the largest component of taxes collected by Aurizon (on behalf of the Federal government). This includes Pay As You Go Withholding from employees' salary and wages and superannuation contributions for employees. Figure 36 excludes a number of taxes which are considered immaterial for Aurizon, including (but not limited to) stamp duty, customs duty, withholding taxes, taxes paid to foreign governments, and taxes paid by controlled Australian entities which do not form part of the Aurizon income tax consolidated group.

FIGURE 36 – TAXES COLLECTED AND PAID BY AURIZON



TAX

FEDERAL

- Corporate Income Tax
- Goods and Services Tax (GST) Net of Recoveries
- Employee Payroll Taxes (PAYG-W)
- Fringe Benefits Tax
- Fuel Excise Paid Net of Recoveries

STATE

- Payroll Tax
- Miscellaneous

TAX STRATEGY, TAX POLICY AND GOVERNANCE

Aurizon's tax strategy focuses on:

- Accurate and timely tax compliance and reporting;
- Enhancing shareholder value through principled tax planning; and
- Building a positive and transparent relationship with the ATO.

This strategy is implemented through Aurizon's Board approved Tax Policy, CFO approved Tax Corporate Principle and Aurizon's broader Enterprise Risk Management Framework.

The Aurizon Tax Team has primary responsibility for implementing Aurizon's tax strategy, with oversight by the CFO, the Audit, Governance and Risk Management Committee and the Board.

Accurate and timely tax compliance and reporting

The Aurizon Tax Team is responsible for identifying and complying with Aurizon's 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 and the Board.

Enhancing shareholder value through principled tax planning

Aurizon's 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 Aurizon makes appropriate tax elections when given a choice under the tax law; and
- Ensuring tax positions adopted by Aurizon are in accordance with parliamentary intention, guidance provided by the ATO and do not breach published safe harbour limits.

Aurizon's Tax Policy prohibits undertaking transactions for the specific purpose of obtaining a tax benefit. The Aurizon Tax Team collaborates with Aurizon's businesses to identify and mitigate any tax risks.

Tax positions adopted by Aurizon are considered by at least two qualified tax professionals, with material positions verified with external independent advice.

Building a positive and transparent relationship with the ATO

Aurizon actively manages its relationship with the ATO to foster transparency, taking a 'no surprises' approach and ensuring the ATO is aware of all significant tax positions and transactions.

Aurizon voluntarily meets with the ATO bi-annually as part of its commitment to full disclosure and building a positive, collaborative working relationship with the ATO.

INCOME TAX

The following information has been derived from the audited financial statements prepared for Aurizon for FY2017. Aurizon's financial statements reflect Aurizon's 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 - these differences reverse over time; and
- Non-temporary differences - these 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 Aurizon 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.



TABLE 12 — RECONCILIATION OF ACCOUNTING PROFIT TO INCOME TAX PAYABLE

	FY2017 \$M	FY2016 \$M
Current Tax	77.1	134.5
Deferred Tax	(158.7)	(14.0)
Total Income Tax Expense	(81.6)	120.5
Underlying Profit/(Loss) Before Tax	657.5	720.5
Significant Items (Primarily Impairments)	(927.0)	(527.6)
Statutory Profit/(Loss) Before Tax	(269.5)	192.9
Tax at Australian Tax Rate of 30% (2016: 30%)	(80.9)	57.9
Tax effect of amounts which are not (taxable) deductible in calculating taxable income:		
- Research and Development	(1.6)	(1.8)
- Other	2.3	67.3
- Adjustments for tax of prior periods	(1.4)	(2.9)
Income Tax Expense/(Benefit)	(81.6)	120.5
Temporary Differences:		
Provisions / Accruals	5.1	(6.5)
Customer Contracts	(10.3)	(13.1)
Property, Plant and Equipment	168.0	32.7
Other	(4.1)	0.9
INCOME TAX PAYABLE	77.1	134.5

TABLE 13 — AURIZON'S EFFECTIVE INCOME TAX RATE

	FY2017	FY2016
Underlying Profit before Tax (PBT)	\$657.5m	\$720.5m
Significant Items (Impairments etc)	(\$927.0m)	(\$527.6m)
Statutory PBT/(LBT)	(\$269.5m)	\$192.9m
Statutory Income Tax Expense/(Benefit)	(\$81.6m)	\$120.5m
Statutory Effective Tax Rate	30.3%	62.5%
Underlying Income Tax Expense	\$196.5m	\$210.8m
Underlying Effective Tax Rate	29.9%	29.3%

RECONCILIATION OF ACCOUNTING PROFIT TO INCOME TAX PAYABLE

Table 12 provides a reconciliation of Aurizon's accounting profit/(loss) before tax to income tax expense and income tax payable. Income tax expense is calculated as the accounting profit/(loss) before tax multiplied by the applicable tax rate, adjusted for non-temporary differences.

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

The key adjustment in Aurizon's tax calculation is for temporary differences arising from the different accounting and tax treatment of fixed asset related costs. This is because Aurizon is a capital-intensive business, with a significant portion of its asset base comprised of Property, Plant and Equipment.

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/(loss) before tax. Aurizon's effective income tax rate is outlined in Table 13.

There were a number of significant items (impairments) recognised for accounting purposes in FY2017. The impairments in FY2017 are generally not deductible for tax purposes and therefore it is necessary to calculate an underlying effective tax rate in order to 'normalise' the effective tax rate.

Aurizon's (underlying) effective tax rate for FY2017 of 29.9% is less than the 30% Australian corporate tax rate. This is primarily due to the research and development (R&D) tax incentive which operates to reduce a company's tax payable by 8.5% of the eligible R&D expenditure identified for the income year.

For FY2017, the statutory effective tax rate calculated is above 30% due to the statutory loss position.



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