TASRAIL

SAFETY INTEGRITY RESPECT BEING REMARKABLE

15 May 2025

The Chair
Miriam Beswick MP
House of Assembly Select Committee
Parliament House
HOBART TAS 7000

Email: gbselect@parliament.tas.gov.au

Dear Ms Beswick

Thank you for the opportunity to provide a submission in relation to the House of Assembly Select Committee on the performance, governance and ownership structure of Government businesses.

TasRail welcomes the State Government's current review of the governance arrangements for State Owned Companies (SOC's) and continues to cooperate fully with the proposed reform agenda. Through this engagement, TasRail highlights its own strong record of compliance with both the Treasury Guidelines for SOC's and governance requirements as deemed by the Corporations Act.

To support the Committee's deliberations, particularly with regard to the Committee's Terms of Reference (a)(ii), TasRail is pleased to provide a recent study undertaken by transport economists 2XF (on behalf of TasRail) titled 'The Economic Value of TasRail'. The report highlights that the economic benefits of freight rail in Tasmania are significant, with the value of rail's standard (direct) benefits alone outweighing expected infrastructure investment needs over the coming decade.

To further support the Committee's work, TasRail has also provided a presentation that outlines our customers, operations and infrastructure. I would also recommend that the Committee avail themselves of TasRail most recent Annual Report, a copy of which can be found on TasRail's website (https://www.tasrail.com.au/annual-reports).

I trust that all these pieces of work highlight the valuable contribution that TasRail makes to Tasmania's broader economic objectives and I look forward to seeing the final determinations of the Committee in 2026.

Yours sincerely

[redacted]

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THE ECONOMIC VALUE OF TASRAIL

TASRAIL | 2XF

REPORT BY
2XF ADVICE PTY LTD
FOR TASRAIL

Contents

Executive summary

Rail has been used to move freight across Tasmania for over 150 years. The fundamental strengths of rail – economies of scale, safe and separate corridors, and the unsurpassed movement efficiency of steel wheels on steel rails – have underpinned rail's role in Tasmania's freight network. These characteristics, and an emerging understanding of freight rail's low greenhouse emission profile[1], will ensure that rail continues to be used to move freight in transport systems around the world, for decades to come.

The supply chains of major Tasmanian industrial businesses are physically integrated with freight rail. Major export commodities including finished metals, mineral ores, paper and cement are delivered to port by rail, where they are seamlessly loaded onto ships from storage and loaders directly connected to the rail system. Products such as logs, mineral ores and containerised freight are sent north, south, east and west on Tasmania's integrated rail network.

TasRail manages the state's rail system as a vertically integrated whole. TasRail operates the Below Rail segment, ensuring the rail network is fit for purpose (safe and efficient), and the Above Rail business that provides commercial rail and terminal services to Tasmanian industry.

The Above Rail business is TasRail's primary revenue generator – charging commercial customers for freight services. This revenue contributes to, rather than fully covers, the costs of operating the Below Rail segment. This is because many of the benefits of freight rail are economic, rather than commercial. As such benefits, which include improved road safety and lower environmental impacts, accrue widely across the community and cannot be fully recovered from the customer base.

This is why governments the world over choose to make ongoing investments in freight rail infrastructure, ensuring that operational standards remain at a level sufficient to support safe and efficient rail network performance and continuing, strong freight customer demand.

TasRail has commissioned transport economists 2XF Advice Pty Ltd to assess the economic value of freight rail in Tasmania and to compare this value with expected funding requirements over the coming 10-year period from 2026 to 2035.

A cost–benefit analysis (CBA) is the basis of the assessment. CBA is recommended by Infrastructure Australia (IA) and by the Transport and Infrastructure Council[2] as the chief tool to assess the economic merit of transport initiatives. The CBA model used for this report is based on the

[1] The Australian Government's Net Zero Transport roadmap highlights rail's already very low emissions profile as well as the capacity to move to zero emissions with further development of battery-electric freight rail options.
[2] This ministerial council oversees the publication of the Australian Transport and Planning (ATAP) framework which has been agreed to by all Commonwealth jurisdictions as the agreed framework for the planning and assessment of transport initiatives.

approach used in support of funding from the Australian Government's Infrastructure Investment Program for the last four tranches of the Tasmanian Freight Rail Revitalisation program.

The key results of the CBA confirm that operating a freight rail system over the next 10 years is economically beneficial to Tasmania, with benefits exceeding costs.

The benefit–cost ratio (BCR) is 1.3 when considering only standard benefits[3] of operational efficiency: safety, reduced port congestion and lower environmental impact. Put plainly, for every $1.00 invested by government, $1.30 in economic benefit is returned. The BCR increases to 2.0 when the wider economic benefit of higher employment is included.

The net present value (NPV) of operating the rail network over the coming 10 years is estimated to be $124 million, with standard benefits only. The NPV is estimated at $405 million when wider economic benefits are included.

There are other benefits of freight rail that are difficult to quantify but are nevertheless real; these add to the total economic value of Tasmania's freight system. These other benefits include option value – the strategic and added resilience benefits of having infrastructure capacity ready to service new freight tasks that may arise. TasRail's record growth in forestry volumes is an example of option value, whereby industry was enabled to transport logs that were previously uncommercial for processing and export.

Overall transport system competitiveness (and therefore effectiveness) is higher when rail freight is competing with road and sea freight – as is the case in Tasmania.

Another important benefit is the higher quality of life that the community enjoys thanks to the rail network. Community members regard rail as the preferred method to move freight. They understand that rail reduces the number of trucks on the roads that are shared by heavy vehicles, light vehicles, pedestrians and cyclists. The safety benefit of rail has been quantified – but not the improved wellbeing, or amenity, that is widely reported by the community. Rail also has cultural and heritage significance and value to many Tasmanians.

In summary, the economic benefits of freight rail in Tasmania are significant, with the value of rail's standard (direct) benefits alone outweighing expected infrastructure investment needs over the coming decade. When the value of higher employment is included, the NPV of running the rail system over 10 years is estimated to be over $400 million. This is without quantifying rail's other benefits that include higher community wellbeing, the strategic and transport system-resilience value offered by maintaining the capacity to handle new and growing freight tasks, and the element of competition that rail injects into Tasmania's freight market.

Governments and their communities can therefore be confident that continued investment into Tasmania's rail freight network is economically justified and sensible.

[3] Under ATAP and IA guidance, there are three broad categories of benefit, termed standard, wider economic benefits and other.

Strategic context

The Tasmanian Rail Network is an important element of Tasmania's and Australia's transport systems. It is integrated with ports, roads, logistics hubs and major freight producers. The lines linking Burnie, Brighton, Launceston and Bell Bay are part of Australia's National Land Transport Network[4].

Tasmania's 632km rail network is used to move approximately three million tonnes of freight every year – with the 2024 freight task totalling a record 514 million net tonne kilometres.

Rail freight customers include some of the state's major exporters. TasRail handles about 35 per cent of Tasmanian export tonnage. Exports of non-ferrous metals and metallic ores and metal were valued at $2.9 billion in the calendar year to December 2024, a 64 per cent share of Tasmania's total export value[5]. The supply chain for much of Tasmania's metals and mining product is highly reliant on the rail network. Ore is mainly hauled via the Melba Line and the Bulk Minerals Export Facility at Burnie Port, which stores and loads ore onto ships for export. Zinc and aluminium ingots are moved to port via the rail network.

Inputs for export products are hauled by TasRail, including coal used to manufacture newsprint and for cement production. Rail is also used to send imported intermodal, containerised freight from the ports of Burnie, Bell Bay and Devonport to logistics hubs at Brighton, Bell Bay and Launceston.

TasRail has managed the Below and Above Rail segments of the rail network since 2009. In 1997 the rail network was privatised; after a period of government subsidies from 2004, it came back into public ownership.

TasRail initially took responsibility for the Below Rail network (managing the track) in 2007. In 2009, TasRail was formed as a State-owned Company. This established a vertically integrated railway, combining the Below and Above Rail elements, with the Above Rail business running the train fleet and servicing commercial freight customers.

In the years since, the Australian and Tasmanian governments have made substantial investments into the rail network. This has seen strong increases in network performance – improved on-time running, reliability and safety. There has been a corresponding growth in freight. The rail freight task is up by approximately 150 million net tonne kilometres since the 2011 low point.

[4] See the map at https://investment.infrastructure.gov.au/sites/default/files/documents/national-land-transport-network-corridors-rail-tasmania.pdf

[5] Tasmanian Government, Department of Treasury and Finance, *International Trade in Goods, December 2024*, released 6 February 2025

Today freight rail is a vital element in the Tasmanian freight landscape. Rail is entrenched in the supply chain of Tasmanian industrial and logistics businesses and is highly valued by the community, particularly for rail's role in moderating the number of heavy truck movements on the state's roads (estimated to be ~ 150,000 large truck movements per annum.) However, some aspects of rail's economic value to the community cannot be converted into commercial gain – hence the only brief period of operation as a private rail network.

Consistent with freight railways the world over, TasRail's Above Rail business – which earns income from freight services supplied to commercial customers – is not sufficiently profitable to fund investment into the Below Rail network at levels needed to maintain acceptable network performance standards and strong freight volumes. Therefore, TasRail expects that annual infrastructure funding from the Australian and Tasmanian governments will be required for the coming decade and beyond.

This report sets out the size of that funding. It explores the nature and value of economic benefits that governments, and the communities they serve, will receive in return for retaining rail as a fundamental element of Tasmania's freight transport system.

Approach and methodology

This report seeks to place a value on the economic benefits of Tasmania's rail system and compare these with the expected government funding costs over the upcoming 10-year period from 2026 to 2035.

A cost–benefit analysis (CBA) has been developed for this task. CBA is the method of assessing the economic merit of transport programs and projects recommended by Infrastructure Australia (IA)[6] and under the Australian Transport Assessment Planning (ATAP) framework[7]. ATAP is closely aligned with IA guidance while being broader in scope. It is endorsed by the Australian, state and territory governments and published by the Transport and Infrastructure Council.

The CBA model for this report follows ATAP guidelines. The method, used for this report, is a further iteration of the cost–benefit modelling approach used in support of applications for Australian Government's Infrastructure Investment Program funding under the Tasmanian Freight Rail Revitalisation project. 2XF has worked with TasRail on all four tranches of the revitalisation project.

CBA used for transport initiatives typically compares a "project case" with a "base case". For the purposes of this Value of Rail analysis, the project case is continuing to run a Tasmanian rail freight network over the coming 10 years. The base case is a scenario where the freight rail system is shut

[6] See https://www.infrastructureaustralia.gov.au/guide-economic-appraisal

[7] The ATAP guidance on CBA can be seen at https://www.atap.gov.au/tools-techniques/cost-benefit-analysis/index

down and the freight task anticipated to be moved by rail is instead carried on road by heavy vehicles, over the same 10-year period.

The benefits valued under the CBA include line-haul efficiency/cost savings, reduced congestion at Port of Burnie, improved safety, lower environmental impacts and reduced road maintenance costs. These are direct benefits of running a rail system in Tasmania and are termed standard benefits under ATAP guidelines.

The rail system also supports employment – beyond those employed directly at TasRail. We estimate additional employment in two areas. Firstly, by major customers where rail is embedded in the supply chain. Secondly, by major rail contractors who supply services to TasRail. This type of benefit is termed a wider economic benefit under ATAP. We present these separately to the standard benefits as recommended under the guidelines.

Further information on the key data and assumptions used in the CBA model to estimate benefits can be found in the *Detailed results and key assumptions* section of this report.

The main result types generated by this CBA are the benefit–cost ratio (BCR) and net present value (NPV) of the project case of continued freight rail operation in Tasmania.

A BCR is a simple metric that compares the cost of an investment to its benefits. It is calculated by dividing the benefits of the investment by the costs. For example, a proposed project costing $100 million that is expected to provide a flow of benefits totalling $200 million will have a BCR of 2.0. A different $100 million project with total benefits of $70 million will have a BCR of 0.7.

A BCR of 1.0 and higher is an indicator that public investment in a project or program is economically warranted. A BCR under 1.0 indicates that the economic benefit of the initiative will be less than the costs.

Net present value (NPV) is a dollar figure that summarises the overall value of an investment. NPV is the difference between total benefits and total costs over the period in question. Annual costs and benefits are discounted to give the "present" or current value of costs and benefits that are estimated to occur in the future – with the assumption that a dollar today will be worth more than a dollar in future years. ATAP and IA stipulate that discount rates of 4 per cent and 7 per cent should be used. For the sake of simplicity, we have used the higher (more conservative) discount rate of 7 per cent in this report. Similarly to BCRs, a positive NPV indicates that a project has economic merit.

The BCR metric provides information about the extent to which benefits outweigh costs for a given initiative. The NPV metric gives the actual size of the net benefit along with a sense of the scale of the investment or project.

Summary results

Tasmania's freight rail system provides net economic benefit to the state. The anticipated costs of government funding of the rail network over the next decade are outweighed by the value of the benefits that flow from the network's use. This is demonstrated by the positive benefit cost ratios and net present values shown in Table 1 and *Table 2*.

These overall results demonstrate that continuing government investment in Tasmania's rail system is economically warranted.

Table 1: Freight rail in Tasmania 2026-2035, benefit cost ratios, 7% discount rate

Result area	BCR
Standard Benefits (operational cost savings, improved safety, avoided port congestion, avoided road maintenance, lower environmental impacts)	**1.3**
Standard Benefits + Wider Economic Benefits (employment in rail-reliant sectors)	**2.0**

Table 2: Freight rail in Tasmania 2026-2035, net present values, 7% discount rate

Result area	NPV
Standard Benefits (operational costs, safety, avoided port congestion, avoided road maintenance, lower environmental impacts)	**$124 million**
Standard Benefits + Wider Economic Benefits (employment in rail-reliant sectors)	**$405 million**

Detailed results and key assumptions

The CBA follows the methodology provided in the ATAP guidelines, as explained earlier.

Information on the costs, freight tasks and other inputs for estimating benefits is provided below.

Costs

The cost considered in the analysis is the forecast funding requirements from the Australian and Tasmanian governments for TasRail to maintain the Below Rail network to a standard needed for reliable network performance and service levels sufficient for freight rail customers.

The annual cost over the first half of the 10-year period, the years 2026 to 2030, is $52 million, comprising:

- $22 million per annum for the Below Rail Infrastructure Contribution (BRIC). This is 100% funded by the Tasmanian Government and used for Below Rail maintenance and operations (network control, specialist maintenance vehicles and vegetation management etc.)
- $30 million per annum in rail network funding from the Australian Government (under its Infrastructure Investment Program (IIP), that is funded in combination by the Tasmanian and Australian governments and used for network renewal.

The annual cost over the second 5-year period from 2031 to 2035 is $57 million, with IIP funding rising to $35 million per year. These annual funding costs are in real 2025 dollars. The increased funding for the 2031-2035 period is included to allow for anticipated cost escalation separate to inflation.

Total funding costs for each year are tabled below:

Table 3: Tasmanian freight rail, annual government funding costs, 2025 $ millions

Program	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
BRIC	22	22	22	22	22	22	22	22	22	22
IIP	30	30	30	30	30	35	35	35	35	35
Total	**52**	**52**	**52**	**52**	**52**	**57**	**57**	**57**	**57**	**57**

Standard and wider economic benefits

Standard benefits under the ATAP guidelines are those with a direct impact on the community. These include various types of impacts that flow directly from a transport project or transport policy choice. These impacts include:

- efficiency (issues around the cost, speed and reliability of moving freight and people)
- safety
- environmental impacts
- infrastructure provision and maintenance efficiency.

Wider economic benefits are the flow-on effects from an element of a transport system. Productivity gains, employment gains, improved competition and higher profits/lower prices are all examples of wider economic benefits that are considered under the ATAP framework.

The benefit types of running a freight rail system in Tasmania that have been quantified for this report are shown in *Table 4*, along with their value:

Table 4: Benefit types, with 1-year and 10-year $ million values at 7% discount rate

Benefit type	Benefit	1 year $ millions	10-year $ millions
Efficiency	Lower operating costs	25.1	183.5
	Avoided congestion at Port of Burnie	16.8	122.8
Safety	Increased safety	9.2	67.4
Environmental	Reduced greenhouse gas emissions	3.8	54.0
	Reduced air pollution	0.3	2.3
Infrastructure provision	Avoided road maintenance costs	9.6	73.5
	Sub-total: Standard benefits	64.8	503.4
Wider economic benefits	Higher employment in customer and supplier industries reliant on rail	40.1	281.5
	Total: Standard and wider economic benefits	**$104.9**	**$784.8**

Estimating standard benefits

Key data and assumptions that have underpinned the estimation of benefits are provided below.

Freight tasks

The amount of freight moved by TasRail has risen steadily over the last 15 years from approximately 310 million net tonne kilometres to the current level of approximately 515 million net tonne kilometres.

The freight task is assumed to rise at 1.0 per cent over the period 2026 to 2035 for the purposes of this analysis.

This is a more conservative figure than the growth rate of 1.7 per cent forecast in the Tasmanian Integrated Freight Strategy of 2017.

See the table below for a summary of key freight task information.

Table 5: Freight tasks

Description	Units	Value	Source/comment
Rail freight task in Year 1	Net tonne km (ntk)	515,000,000	TasRail
Annual growth in rail freight task	%	1%	A conservative assumption of 1% growth was selected
Rail freight task in Year 10	Net tonne km (ntk)	563,247,915	Calculated

Efficiency – road and rail operating costs

The intrinsic efficiencies of rail mean that freight can be moved from point to point on the rail network at a lower line-haul cost than road.

In Tasmania, rail carries a variety of freight types, including bulk materials such as mining products, paper products, cement and logs. Intermodal freight is also carried by rail. Intermodal freight is containerised freight that can be moved between port, rail and road freight terminals quickly and efficiently and allows the optimisation of overall freight system efficiency[8].

The TasRail fleet is compared to equivalent heavy road vehicles that would be used to move freight currently moved by rail.

The tables below set out vehicle types and operating costs for road and rail.

Table 6: Typical heavy vehicles used to perform freight rail tasks

Description	Value	Source/comment
Trucks used for rail freight task – semis, B doubles and similar		Estimates based on TasRail analysis of major freight tasks and equivalent trucking types and movements. Note: The share of B-double equivalent vehicles that would be needed to perform rail's task is higher than the state average of 60:40 as reported in the Tasmanian Freight Survey.
Portion of task carried by general access vehicles – typically 6 axle semis	29%	
Portion of task carried by HPV/HML vehicles – typically B-doubles	71%	

[8] Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2016, *Why short-haul intermodal rail services succeed*, Research Report 139, BITRE, Canberra ACT.

Table 7: Anticipated trucking fleet required for annual rail task

Truck description	Heavy vehicle type	Trailer type 1	Trailer type 2	Trailer type 3	Quantity
B-double tipper	Multi-combination prime mover, 3 axles	B-double lead trailer triaxle group	Semi-trailer triaxle group	na	38
Quad dog + Rigid tipper	Truck type 2, 3 axles	Dog trailer quad axle	na	na	14
B-double log	Multi-combination prime mover, 3 axles	B-double lead trailer triaxle group	Semi-trailer triaxle group	na	20
A-double	Multi-combination prime mover, 3 axles	Semi-trailer triaxle group	Converter dolly tandem axle	Semi-trailer triaxle group	19
B-double	Multi-combination prime mover, 3 axles	B-double lead trailer triaxle group	Semi-trailer triaxle group	na	14
Semi	Short combination prime mover, 3 axles	Semi-trailer triaxle group	na	na	71
TOTAL FLEET SIZE					176

Table 8: Vehicle operating costs (VOC), network wide

Description	Unit	Value	Source/comment
Typical VOC for general access vehicle (6 axle semi) at free speed on rural roads, curvy and 4% gradient	$/km	2.36	Calculated from Table 48, Australian Transport Assessment and Planning Guidelines – PV2 Road Parameter Values, 2016. Converted to 2024 $ using ABS 6427.0 Producer Price Indexes – Index Numbers 461; Road freight transport
Typical VOC for HPV (B-double) at free speed on rural roads, curvy and 4% gradient	$/km	3.47	As above
Average maximum payload 6 axle semi	tonnes	26.66	Dudgeon and Findlay, 2016, High Productivity Vehicle Costs and Selected Freight Policy Implications
Average maximum payload B-double	tonnes	39.99	As above
Assumed average load % of capacity	%	75%	This is the assumption used in ATAP for VOC calculations
Payload at 75% loading 6 axle semi	tonnes	20.00	Calculated
Payload at 75% loading B-double	tonnes	29.99	Calculated
VOC, $/ntk 6 axle semi	$/ntk	0.093	Calculated
VOC, $/ntk B-double	$/ntk	0.099	Calculated
VOC, $/ntk rail	$/ntk	0.067	TasRail, includes line-haul costs of fuel, oils, depreciation + repairs and maintenance of locomotives and wagons

Efficiency – avoided congestion at Burnie Port

Rail is integrated with Burnie Port and handles a very large quantity of freight, including both exports and imports. In a scenario without rail, the number of additional truck movements would result in a significant increase in port congestion.

Information used to estimate the size of the benefit of avoided congestion is shown below in Table 9.

Table 9: Avoided congestion at Burnie Port

Description	Unit	Value	Source/comment
Weekly train trips in and out	Trips	30	TasRail estimate
Equivalent weekly truck trips in and out (avoided truck trips)	Trips	1,180	TasRail estimate
Assumed share of truck trips impacted by 0.5-hour delay	%	25%	TasRail & 2XF estimate
Assumed share of truck trips impacted by 1-hour delay	%	35%	As above
Assumed share of truck trips impacted by 2-hour delay	%	25%	As above
Assumed share of truck trips impacted by 12-hour delay (delay occurring at point of origin, freight value only)	%	15%	As above
Value of freight time per hour	$/truck hour	$85.67	ATAP Urban Values of time for freight & driver adjusted to 2024 $
Value of driver time per hour	$/truck hour	$36.99	

Safety

Rail is a very safe freight transport mode due to the separation of the rail corridor from the road corridor shared by heavy and light vehicles, cyclists and pedestrians. The table below shows the average accident costs for heavy road vehicles and rail in Tasmania.

Table 10: Accident costs, used to estimate safety benefits

Description	Unit	Value	Source/comment
Freight rail in Tasmania accident costs	$/ntk	0.005	2XF calculations from heavy road vehicle and rail accident statistics for Tasmania and ATAP valuations for fatal and serious injury crashes (Willingness to Pay approach).
Heavy road vehicles in Tasmania accident costs	$/ntk	0.023	

Environmental impacts

Rail's scale and intrinsic efficiency of steel wheels rolling on steel tracks result in lower environmental impacts compared with road, as less energy is required to move each tonne of freight.

The tables below show the basis of the estimation of the value of reduced greenhouse gas emissions and air pollution.

Table 11: Environmental costs, greenhouse gas emissions

Description	Unit	Value	Source/comment
Typical fuel consumption general access semi	l/ntk	0.045	Calculated using Table 60 Australian Transport Assessment and Planning Guidelines – PV2 Road Parameter Values, 2016 and payload assumptions as per Table 5
Typical fuel consumption B-double	l/ntk	0.048	Calculated as above
TasRail network average fuel consumption rail	l/ntk	0.012	TasRail
CO2e emissions factor for diesel	kg CO2e/litre	2.72	National Greenhouse Account Factors
Value of GHG emissions	$/tonne CO2e	$76 - $148	Table 4, CO2e values, ATAP PV5 Environmental Parameter Values, values grow each year over the period

Table 12: Air pollution costs of road and rail freight

Description	Unit	Value	Source/comment
Air pollution cost – heavy road vehicles	$/1000ntk	0.67	Table 5-12 Australian Transport Assessment and Planning Guidelines – PV5 Environmental Parameter Values
Air pollution cost – rail freight	$/1000ntk	0.06	As above

Transport system cost savings – avoided road damage

The rail network currently carries approximately 515 million net tonne kilometres each year, and this is expected to rise to approximately 563 million net tonne kilometres over the next 10 years (see *Table 5*).

The rail network comes at an ongoing cost (see *Table 3*), but this reduces the maintenance costs of the road network. The existence of the rail network avoids road damage that would occur if trucks were required to haul the current rail freight task.

The value of the avoided road damage can be estimated by calculating the road user charges (a fuel levy) and heavy vehicle charges (registration fees) that would be paid by trucks hauling the equivalent rail freight task *(See Table 7)*. These charges are a proxy for road damage/maintenance costs and are determined by the National Transport Commission on behalf of Australian and state government transport ministers.

See the tables below for more information.

Table 13: Avoided diesel consumption and road user charges

Description	Unit	Value	Source/comment
Annual diesel usage, trucks carrying rail task – year 1	litres	24,230,449	Calculated using Australian Transport Assessment and Planning Guidelines, as per Table 7 above
Current road user charge	$/litre	0.305	See https://www.ntc.gov.au/laws-and-regulations/road-user-charges
Road user charge year 2-10	$/litre	0.323	A 6% increase for the year 2025-26 has been agreed. Further increases are likely – but this rate is used through to year 10 for the purposes of this analysis.

Table 14: Heavy vehicle registration charges, current

Heavy vehicle/trailer type	Charge $
Multi-combination prime mover, 3 axles	13,481
Truck type 2, 3 axles	994
Short combination prime mover 3 axles	5,193
B-double lead trailer triaxle group	1,950
Dog trailer quad axle	2,880
Semi-trailer triaxle group	1,950

Note: As the freight task is assumed to rise each year by 1 per cent, the same increase is applied to heavy vehicle charges to account for increases in fleet size and related registration costs.

Estimating wider economic benefits

The ATAP Guidelines *T3 Wider Economic Benefits* sets out several forms of wider economic benefit (WEB). One of these (WEB2a) has been quantified under this cost–benefit analysis.

Transport networks have a variety of flow-on impacts on the economy. Labour market impacts look at the effect that transport networks have on employment. WEB2a is the change in labour supply that may occur because of a transport initiative. This occurs where an element of the transport system allows businesses to function, or function better and employ more people.

In this case, we are looking at the effect that the existence of the TasRail network has on employment of core customers and suppliers.

Tasmania's freight rail system is a vital element of the supply chain for several major employers in Tasmania, as they use and produce large quantities of bulk materials that are ideally transported by rail.

Five businesses have integrated rail into their supply chain to the extent that they have onsite rail terminals that are in regular and frequent use. These businesses are listed below in *Table 15.*

There are also a significant number of contractor jobs that exist as the result of the ongoing work to maintain and improve the Tasmanian rail freight network. The contractor job numbers are shown below in *Table 16*.

We quantify the size of this wider economic benefit by estimating:

- the number of TasRail customer and supplier jobs that are reliant on freight rail
- the earnings related to those jobs
- the income and payroll tax linked to those jobs.

The tax take is considered, under ATAP guidelines, to represent the wider economic benefit that is counted under CBA. In other words, the tax revenue is a conservative representation of the economic gains that come from the presence of freight rail within the Tasmanian transport network.

See the businesses and employee numbers that are heavily reliant on freight rail tabled below:

Table 15: Major, highly reliant rail customers and employees

Customer	Total employees	Source
Boyer Paper Mill	300	https://www.norskeskog.com/about-norske-skog/press-room/articles/sale-of-norske-skog-boyer?Action=1&M=NewsV2&PID=4791
Nyrstar	520	https://www.nyrstar.com/operations/metals-processing/nyrstar-hobart
MMG Rosebery	500	https://www.mmg.com/our-business/rosebery/
Cement Australia, Railton facility	145	https://www.npi.gov.au/npidata/action/load/individual-facility-detail/criteria/state/TAS/year/2022/jurisdiction-facility/TAS+68
Cornwall Coal	60	https://www.globalcement.com/news/item/15114-cornwall-coal-to-plans-new-coal-mine-in-tasmania
Employees reliant on rail	**1,525**	

Table 16: Supplier and contractor jobs supported by annual rail freight infrastructure spending

Contractors	Total full-time equivalent jobs	Source
Various – designers, civil and engineering contractors, project managers etc.	150	TasRail

Unquantified other benefits

There are other benefits of running a rail network in Tasmania that have not been quantified for this report.

Other benefits can be included within cost–benefit analysis under IA and ATAP guidelines. However, they are often difficult to quantify, and in this instance, we have not attempted to do so. Rather we explain the nature of the benefits and their contribution to Tasmania's economy.

The chief other benefits that apply to Tasmania's rail system are option value, increased transport system competitiveness, and higher community wellbeing (or amenity). These are discussed in turn below.

Option value

Option value, in the case of freight rail, refers to the strategic and added resilience benefits of having substantial freight capacity ready to be called upon in response to changing circumstances.

The freight railway network provides Tasmania with the infrastructure capacity to respond, rapidly and effectively, to new freight-reliant economic opportunities. An example where this occurred was the ability of TasRail's Above Rail business to resolve a major forestry industry supply chain challenge by moving logs from Brighton to Bell Bay.

The solution provided by TasRail for the forestry freight task is a good example of the *option value* of infrastructure being realised. The rail system provides ongoing value that is not always captured at each moment in time.

Option value is an attribute of key infrastructure assets. This value addresses the uncertainty of future costs and returns, and the set of opportunities that can be unlocked or denied through infrastructure support or disinvestment. The increased use of the existing rail infrastructure boosts the economic yield of the Below Rail network with minimal additional investment. Any additional capital costs of rolling stock and sidings to facilitate such projects are factored into the freight rates or shared investment by new, project-specific customers.

Motu Economics and Public Policy Research, consultant to the New Zealand Department of Transport, notes:

> *The potential importance of options created by particular infrastructure investments means that a standard "needs analysis" may be an insufficient basis from which to begin an ex-ante evaluation of a potential investment. In the cases discussed above, an "opportunities analysis" also needs to be included prospectively. Furthermore, it is important not to restrict opportunities to those that may be exercised (or even internalised) just by the infrastructure provider or by existing agents. Future agents (e.g., new migrants, start-up firms or international firms not yet present in the country) may be the agents that take advantage of opportunities that are created*[9].

It is possible to estimate option value by estimating the perceived value of having the rail system among current non-users of the rail system[10]. However, it is not simple to determine who the relevant non-users of the rail network are, nor the worth of having the rail option. The chances of over, or under, estimating option value are high, so we have not attempted to do so.

Increased logistical efficiency and competition

Tasmania's freight market is complex with a range of participants and freight service suppliers. Rail and road are often complementary, rather than in direct competition. Nevertheless, markets operate best when choice is high and customers have alternatives.

The presence of road and rail freight modes adds a competitive tension to the Tasmanian freight market. This benefits customers by keeping service standards high at lower freight service costs.

[9] Grimes, A, 2010, The Economics of Infrastructure Investment: Beyond Simple Cost-Benefit Analysis, *Motu Working Paper 10-05*, August 2010, p 37

[10] Bondemark, A, Johansson, E & Kopsch F, 2021, Accessibility and uncertainty: an empirical analysis of option value in transport, *The Journal of Transport and Land Use*, Vol. 14, No. 1, pp 463-477

Rail also adds to the capacity and efficiency of the Tasmanian freight and logistics system. Rail is utilised by a diverse group of agents, including shippers (miners, manufacturers, growers, etc.), port operators and logistics companies that manage, consolidate and ship freight[11].

Rail's freight presence enables Tasmania's freight and logistics system to operate efficiently, adding flexibility to the overall benefit of the users of that system.

Community wellbeing

Another key benefit is the higher amenity that the community enjoys thanks to the rail network.

Community members regard rail as an excellent way to move freight. They understand that rail reduces the number of trucks on the roads that are shared by heavy vehicles, light vehicles, pedestrians and cyclists.

The safety benefit of rail has been quantified for this report – but not the improved wellbeing, or amenity, that is widely reported by the community.

Another aspect of rail's contribution to community wellbeing is the cultural and heritage significance of the rail network. This is about the community's attachment to a place – and the involvement of rail in people's understanding of their shared environment and landforms. Rail has a long history in Tasmania. Many in the community would have a perceived value of that history and would place a value on seeing rail continue to play a cultural, as well as practical, role in Tasmania.

ATAP provides a draft methodology for quantifying this value[12]. However, determining a meaningful and credible monetary estimate of rail's contribution to Tasmanian wellbeing and cultural heritage would not be a straightforward exercise and has not been pursued for this report.

[11] See a comprehensive discussion of the benefits of short-haul rail services in Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2016, *Why short-haul intermodal rail services succeed*, Research Report 139, BITRE, Canberra ACT.

[12] ATAP, October 2024, v2.3 *Valuing Place Effects*

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TASRAIL

INTRODUCTION

CUSTOMERS, OPERATIONS AND INFRASTRUCTURE

VERTICALLY INTEGRATED RAILWAY

TasRail is a vertically integrated railway.

Above Rail Business

The primary objective of TasRail's Above Rail business is to supply safe and efficient rail logistics for Tasmanian heavy industry and freight forwarders through the operation and maintenance of the rolling stock fleet.

Below Rail Segment

The key objectives of the Below Rail segment is to operate, maintain and upgrade a fit-for-purpose freight rail network, freight terminals and train control system to service Tasmanian industry.

TASRAIL FAST FACTS*

- **Rail Freight task: ~3.0m** million tonnes pa (equiv. to 150,000 truck movements)
- **Shiploading task: ~600,000** tonnes pa
- **Services per week:** Conservatively **100 plus**
- **~35% of Tasmania's** export tonnage handled by TasRail
- **Commodities hauled:** cement, logs, newsprint, zinc/copper/lead minerals, finished metals (zinc, manganese, aluminium), coal, general retail and inputs for industrial production

*2023-24 Results

TASRAIL FAST FACTS*

- **Heaviest train:** ~3,000 tonnes
- **Longest train:** ~1,000 metres
- **Freight hubs located at:**
  - Boyer
  - Brighton
  - Parattah
  - Fingal
  - East Tamar
  - Bell Bay
  - Devonport
  - Burnie
  - Rosebery
- **Carbon intensity versus road freight:** 4 x lower carbon emissions
- **FTEs:** TasRail 280 (20% female)

*2023-24 Results

OUR ROLLINGSTOCK

- **17** TR Class Locomotives (pictured right)
- **10** Legacy Locomotives
- **353** wagons to match our customers' products
- Containers, Cement, Coal, Minerals and Logs
- Elphinstone / TasRail Logtainer innovation

NEW MINERALS SHIPLOADER

- Tasmania's only open access minerals shiploader
- Designed and built in Tasmanian
- Owned and operated by TasRail
- Integrated with rail and road supply chains
- **~600,000 tonnes exported annually**
- TasRail's new $64m Shiploader has already loaded ~310,000 tonnes of mineral concentrates

FREIGHT RAIL REVITALISATION PROGRAM

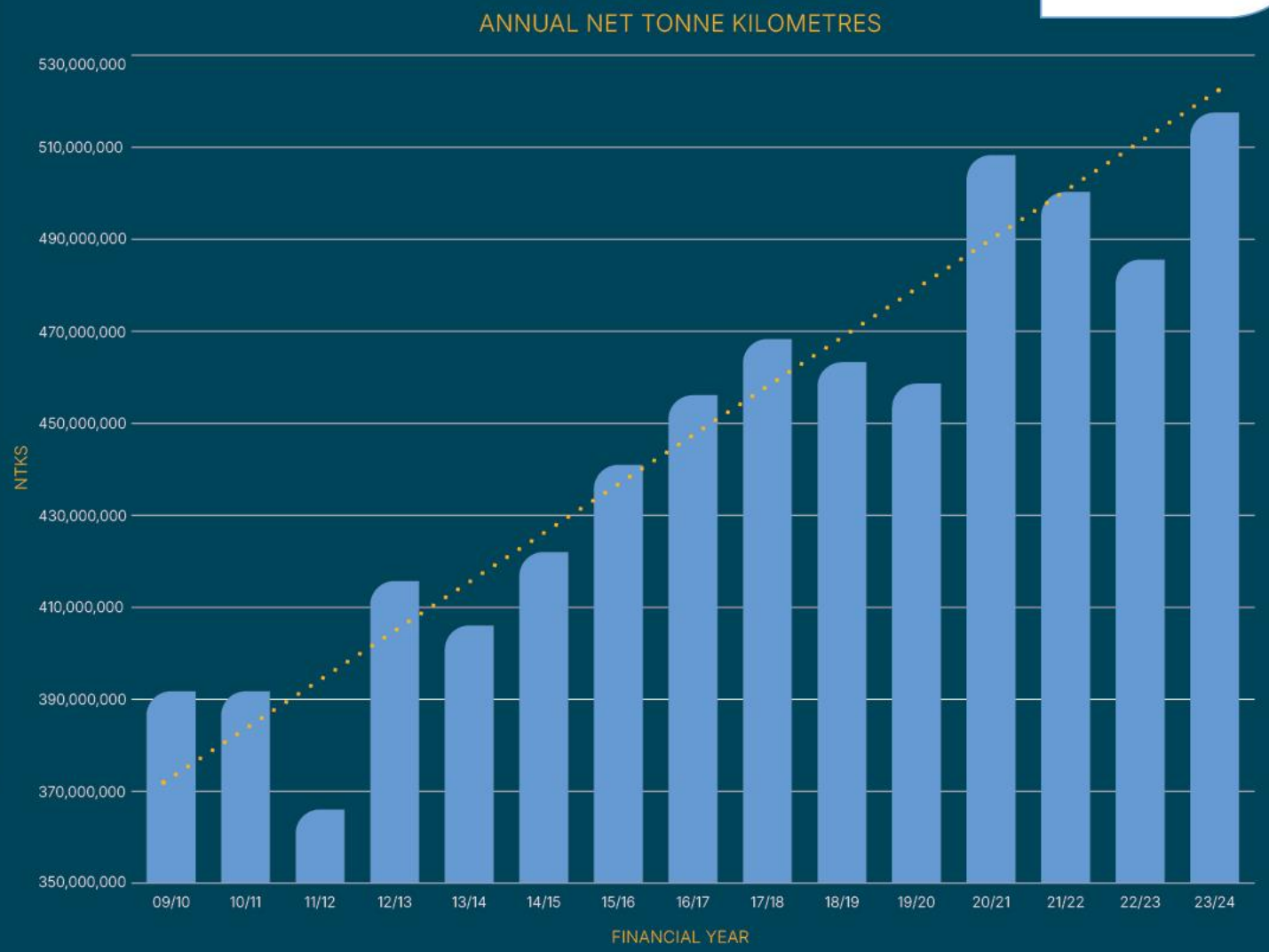
- Commenced in 2015-16 and fully funded to 2027-28
- A combined $446 million investment by the Tasmanian and Australian governments to upgrade rail, sleepers, formation, drainage and bridges / culverts.
- Strong support from major industries:
  - mining
  - metals processing
  - forestry
  - freight forwarders
- The investment to date has produced record performances in on time running, safety and freight volumes.

RECORD GROWTH IN FREIGHT RAIL

- **Record** freight growth since 2009
- **2023-24** another freight record
- **Three** million tonnes pa

or

- **500** million plus Net Tonne KMs pa
- **100** services + per week
- **24/7** operations
- **Long-term** customer contracts



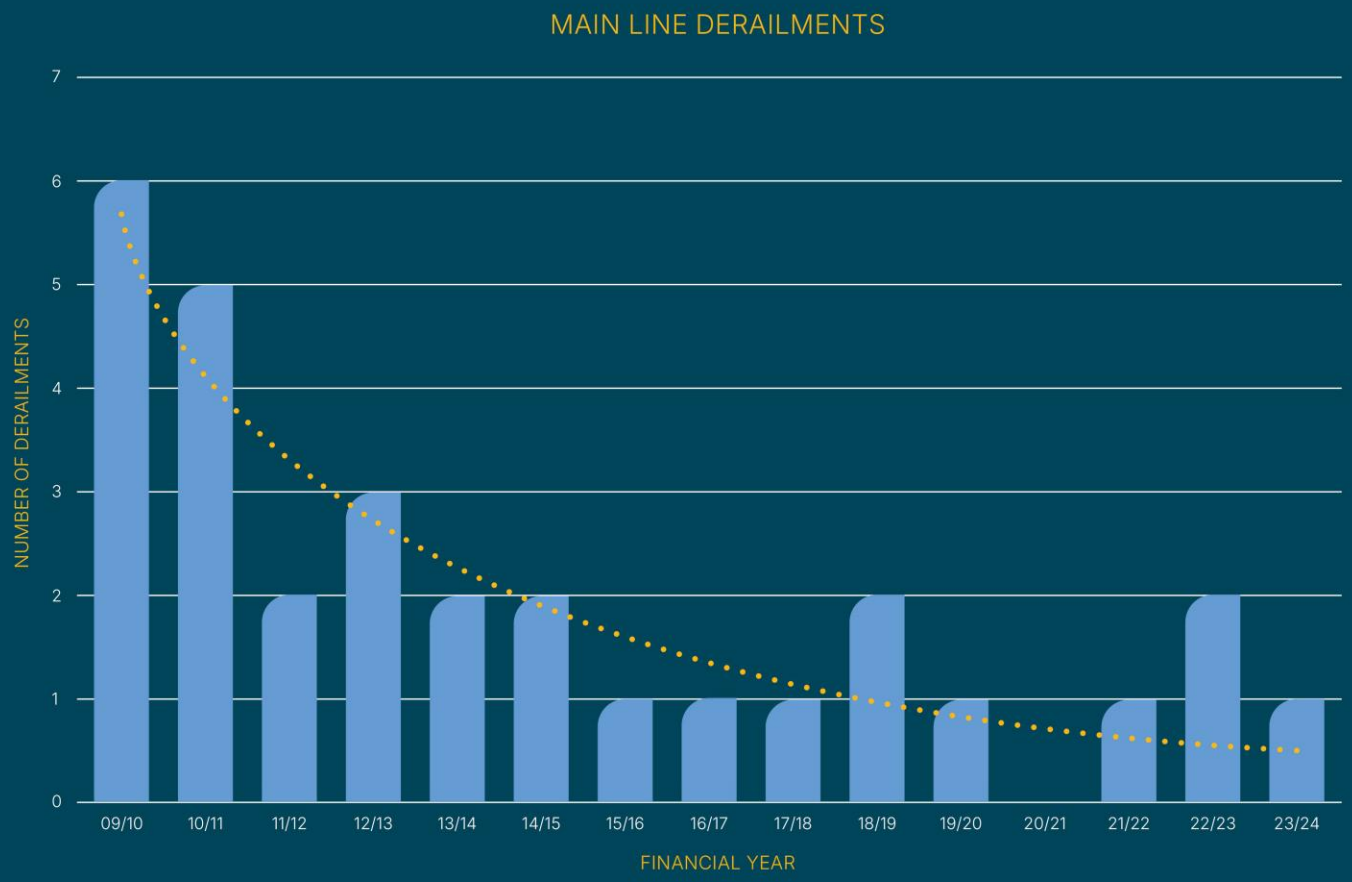
*Net Tonne Kilometres = total distance travelled (in KM) x net weight of the freight.

RECORD RAIL SAFETY RESULTS

- The investment into the Tasmanian Rail Network has driven record safety results.
- Derailments at record lows
- Frequency and severity reduced
- 2020-21 first year **derailment free**
- 2023-24 **derailment free***
- 2024-25 **derailment free****

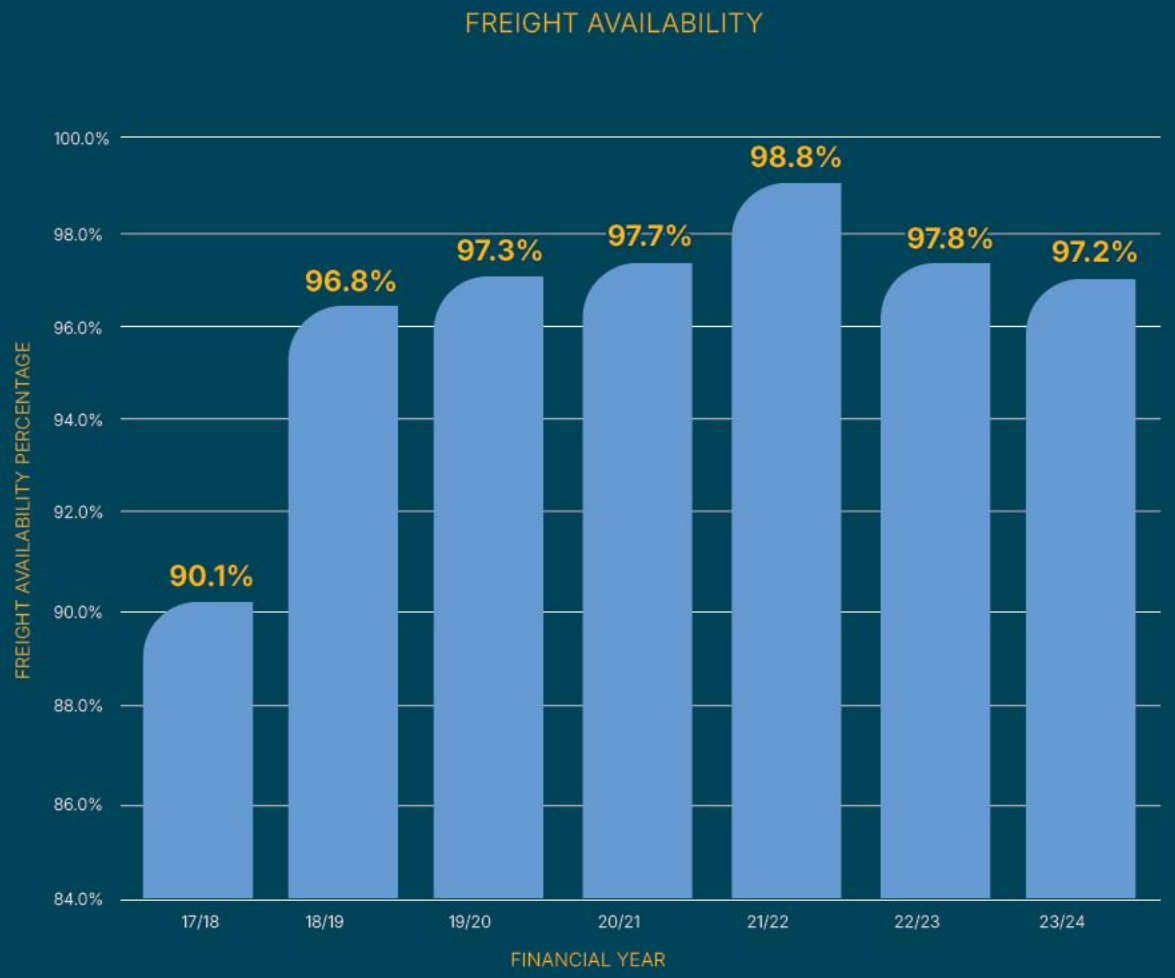
* Single derailment caused a road vehicle

** As at the time of writing



RECORD RESULTS FOR ON-TIME RUNNING

- The investment into the Tasmanian Rail Network has driven on-time running to record levels
- **97.2%** of the six daily intermodal services meet their contracted Freight Availability target 2023-24
- TasRail provides industry operating a high degree of **certainty** that their freight will be delivered at the **contracted delivery** time



CUSTOMER VALUE PROPOSITION

TasRail is the trusted provider of safe and dependable rail logistics solutions for Tasmanian industry. TasRail's infrastructure advantages, along with a culture that is focused on its customers, make it an ideal partner for existing and potential clients from key heavy industries throughout the State.

TASRAIL PROVIDES INDUSTRY:

Long-term business partnerships providing surety of rail haulage capacity and bulk shiploading services;

Connectivity with a statewide network of rail terminals that interface with major ports, freight precincts and industries;

Operational reliability, safety and simplicity across all heavy freight modes, including road, port and shipping operations;

Opportunities to campaign in large volumes of freight to meet customer requirements;

Valuable safety and environmental benefits; and

Innovative and progressive Tasmanian rail transport solutions across all major freight sectors for containers, bulk and forestry freight;

Seamless connectivity with Tasmania's only open access bulk minerals shiploader;

The ability to haul heavyweight and dangerous goods containers as well as bulk cargos to reduce total supply chain costs;

Reduced exposure to heavy vehicle accident risk and NHVR Chain of Responsibility requirements for fatigue and mass management;

Dedicated industry specialised customer account and service management teams engaged to provide leading-edge customer outcomes.