

29 September 2023

Review of the National Freight and Supply Chain Strategy
Department of Infrastructure, Transport, Regional Development, Communications, and the Arts
GPO Box 594
Canberra ACT 2601

Submission online via:

[2023 Review of the National Freight and Supply Chain Strategy | Department of Infrastructure, Transport, Regional Development, Communications and the Arts](#)

Dear Strategy Review Team

2023 Review of the National Freight and Supply Chain Strategy

Pacific National (PN) welcomes the opportunity to engage on the review of the National Freight and Supply Chain Strategy and submits this letter of support for the Australasian Rail Association (ARA) and Freight on Rail Group (FORG) of Australia industry submission (attached).

PN supports the joint industry call to revise the Strategy goals to appropriately acknowledge the issues of infrastructure resilience, decarbonisation (including the Safeguard Mechanism), rail interoperability and skills/training harmonisation. PN also takes the opportunity to provide additional feedback on each of these areas.

PN is Australia's largest private rail freight operator, transporting average weekly haulage volumes of 15,000 twenty-foot equivalent containers of intermodal goods, 2.2 million tonnes of coal, and 0.3 million tonnes of bulk and other freight. PN is therefore keen to support the development of a resilient, efficient, and cost-effective freight and logistics supply chain that will deliver safety, productivity and environmental benefits across Australia.

Australia's supply chains will need to cater for future demand. Rail moves 56 per cent of Australia's total freight and is critical to maintaining national supply chains and meeting this challenge.¹ There is increasing awareness that rail is the most carbon efficient and safest form of line-haul land transport.²

When rail breaks down and freight shifts to road, the cost is significant in terms of traffic congest, higher emissions and road accidents. It is critical to build a resilient rail supply chain network and to have alternatives when existing rail routes are disrupted due to floods, bushfires, and pandemics. For this reason, Inland Rail will be vital for improving reliability and building capacity.

¹ <https://ara.net.au/about-rail/freight-rail/>

² Rail freight transport is three to four times more carbon efficient than road freight transport. Source: Pacific National estimates; Association of American Railroads, Freight Rail Facts and Figures [Freight Rail Facts & Figures - Association of American Railroads \(aar.org\)](#)

PN appreciates the Review Discussion Paper has already recognised the environment has shifted since the National Freight and Supply Chain Strategy was first developed and that there are additional factors to consider in the next Strategy iteration, such as resilience, decarbonisation, and interoperability and skill harmonisation.

Rail infrastructure/network resilience

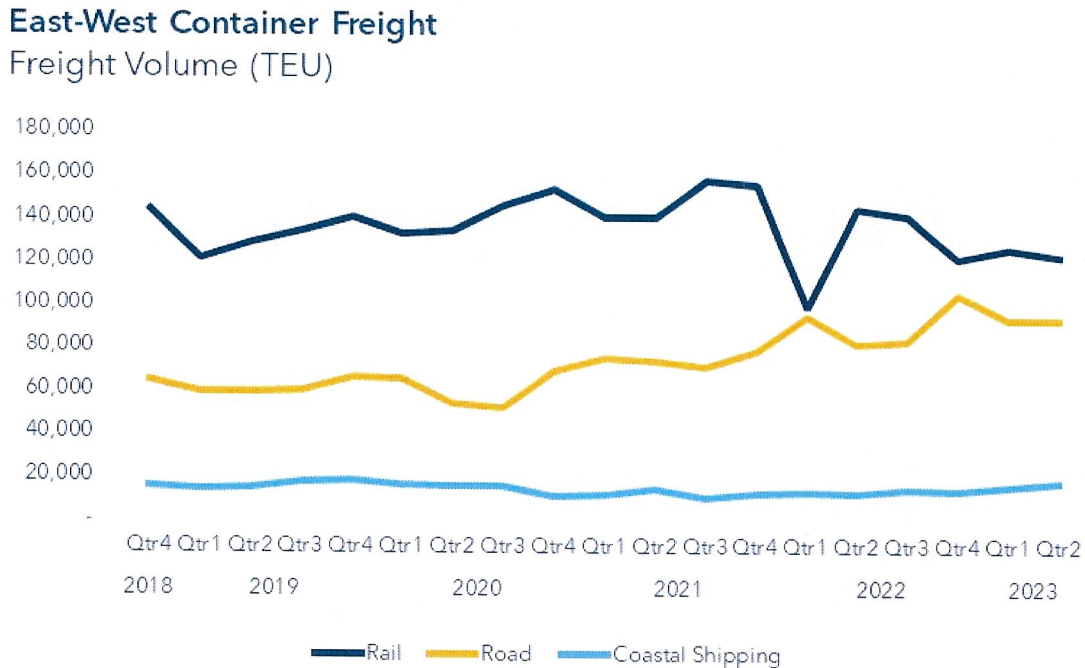
Many sections of Australia's interstate and regional railways lack resilience and are being increasingly impacted by floods and other severe weather events. The joint ARA and FORG submission outlines how recent natural disasters have disrupted major rail freight routes. This includes the 24-day East-West ARTC interstate network closure due to the January/February 2022 floods in South Australia, at an economic cost of \$320 million.³

In addition to economic impacts, track closures and extensive speed restrictions due to weather events and poor track condition significantly effect service delivery and reliability. This creates additional risks within the supply chain and negatively impacts the reputation of rail freight services.

As a result of rail closure, rail freight operators have permanently lost volume as customers switch to road. **Figure 1** overleaf highlights the Q1 2022 drop in rail volumes due to the 24-day East-West interstate network closure and demonstrates the permanent rail freight volume reduction that followed.

³ ARA and FORG SUBMISSION: Review of the National Freight and Supply Chain Strategy

Figure 1: 2018-2023 East-West Transport corridor container freight volume TEU (twenty-foot equivalent units – TEUs)



Source: Pacific National analysis (2023)

- Road TEU is estimated based on heavy vehicle traffic counts and assumes average load of 3.2 TEU per heavy vehicle.
- Coastal Shipping refers to interstate movements to/from the Port of Fremantle.

Figure 1 also shows the mode shift to road that can occur when increasingly higher productivity vehicles are authorised for use (i.e. National Heavy Vehicle Regulator and state governments grant greater access for HPVs on local and state roads and highways).

For example, most recently, NHVR and the South Australian Department of Infrastructure and Transport approved BA-triples for use on the Eyre Highway in December 2022.⁴ This approval has reduced the relative price of road freight and seen an increase in road freight volumes (and corresponding drop in rail freight volumes) on the major East-West transport corridor. The consequences of this mode shift to road are increased traffic congestion, emissions in the national supply chain, ‘wear and tear’ on local and state roads and highways, and road safety risks.

Decarbonisation and environmental regulation

Rail freight transport is more carbon efficient than road freight and provides a low-emissions transport solution for Australia’s supply chain.⁵ A 1,800-metre interstate freight train removes the equivalent of approximately 110 B-double trucks from the road.⁶ Rail also indirectly supports emissions reduction by taking trucks off the road to alleviate traffic congestion.

⁴ <https://www.nhvr.gov.au/news/2022/12/16/ba-triples-approved-for-use-in-south-australia>

⁵ Pacific National estimates; Association of American Railroads, Freight Rail Facts and Figures [Freight Rail Facts & Figures - Association of American Railroads \(aar.org\)](https://www.aar.org/facts-figures)

⁶ ARTC - Inland Rail Business Case / Inland Rail facts <https://inlandrail.artc.com.au/what-is-inland-rail/>

Congested traffic has adverse environmental outcomes and research has shown that the stop-start traffic conditions associated with congestion increase fuel consumption and greenhouse gas emissions by around 30 per cent.⁷

Pacific National operates under the Safeguard Mechanism and is focused on reducing the carbon emissions of our business, while also enabling the reduction of carbon emissions in the broader supply chain to support the national targets of a 43 per cent reduction of 2005 levels by 2030 and net zero by 2050.

The Safeguard Mechanism is the Australian Government's policy for reducing carbon emissions at Australia's largest industrial facilities. It sets legislated limits (baselines) on the greenhouse gas emissions of these facilities. These emissions baselines will drop by 4.9 per cent each year to 2030, to encourage organisations to reduce their operating emissions or buy offsetting carbon credits.

In a perverse outcome, the Safeguard Mechanism could see freight shifting from trains to trucks and result in higher overall freight supply chain emissions, traffic congestion, road crashes and fatalities.

This is because the Safeguard Mechanism captures large rail freight operators, such as PN, but does not apply restrictions to the numerous small trucking companies throughout the nation. As a result, under the Safeguard Mechanism rail freight operators like PN are likely to incur significant additional costs in having to reduce carbon emissions each year, while trucking companies are not required to comply with mandated emissions reduction targets.

Because small trucking firms don't fall within the Safeguard mechanism, it means only 2 per cent of road freight direct emissions are captured, compared to 65 per cent of rail transport's direct emissions being captured under the Safeguard Mechanism.⁸

PN will face large costs in procuring and deploying more technologically advanced freight locomotives and will need to offset any future carbon emissions above mandated thresholds in the Safeguard Mechanism via the purchase of carbon credits each year.

Disappointingly, the Safeguard Mechanism does not recognise that rail already produces significantly lower carbon emissions per tonne of freight moved than trucking. The cost-impost on large rail freight operators could see rail become increasingly less price competitive with road freight operations. This would drive more freight away from rail and lead to an increase in the overall supply chain carbon emissions.

Compared to road transport, rail is also being treated differently in terms of how transport is defined. The Safeguard Mechanism defines 'rail transport' as 'rolling-stock that combusts fuels on-board' and by definition it therefore excludes electric, battery or hydrogen fuel-cell locomotives. This means the

⁷ Reducing congestion boosts productivity and reduces delays. Reducing congestion also benefits the environment. Driving in congested traffic increases fuel consumption and emissions. Research has shown that the stop-start traffic conditions associated with congestion increase fuel consumption and greenhouse gas emissions by around 30%. <http://energycut.com.au/business/wp-content/uploads/2015/03/The-Effects-of-Traffic-Congestion-on-Fuel-Consumption-and-Vehicle-Emissions.pdf>

⁸ FORG submission to Safeguard Mechanism consultation September 2022 <https://consult.dcceew.gov.au/safeguard-mechanism-reform-consultation-paper/submission/view/171>

net tonne kilometres (NTK) delivered by the lowest emission locomotives can't be included in baseline calculations, making it almost impossible for rail operators to get below targeted thresholds.

For an organisation to generate Safeguard Mechanism Credits (SMCs) it must be able to get below the facilities baseline. By excluding electric, battery or hydrogen locomotives, the baseline for rail operators will always be set based on diesel use. Long term this will make it difficult for rail operators to get below the baseline and generate SMCs. Road transport does not have a similar definition restriction.

There is a need for the Australian Government to address the unintended consequences in the Safeguard Mechanism and create a level playing field for rail and road freight. Without this, rail operators are exposed to ongoing carbon credit costs that trucking companies don't face. The additional costs placed on rail operators could mean more freight being transported by trucks and therefore more traffic congestion and road crashes, and more emissions in the supply chain.

Rail interoperability and skills/training harmonisation

Rail networks do not operate in isolation and in a single journey rail operators may cross multiple networks (interstate services) and will need to comply with the differing requirements of each network and rail infrastructure manager. These include different operational requirements such as restrictions on axle loads, train height, length and speed; different signalling and train control communication systems; different safe working arrangements and fatigue management; and different rolling-stock, train driver and skills accreditation rules.

Lack of harmonisation between rail networks is a key source of inefficiency for rail operators. There are eight rail infrastructure managers in Australia, and each has different protocols, operating and safety standards.⁹ These different regimes and rail networks create unnecessary cost and complexity.

PN is pleased that rail interoperability (harmonisation) recently became an action on the National Transport Commission's strategy, with the Australian and Victorian Governments and the Australasian Railway Association signing a Memorandum of Cooperation in March 2023 to make rail more interoperable.

As part of this work, we would like to see rail networks incentivised to develop harmonised and consistent processes and more attention given to developing:

- Interoperable systems and technologies
- Consistent safe working and communication systems
- Consistent rail environmental regulation
- National, consistent accreditation for train drivers and rollingstock.


It is imperative that rail interoperability and skill harmonisation is recognised in the National Freight and Supply Chain Strategy. Developing a consistent approach across rail networks would reduce duplication of effort and improve national rail productivity and innovation. For rail operators it would

⁹ National Transport Commission, National Rail Action Plan, P6
<https://www.ntc.gov.au/sites/default/files/assets/files/National-Rail-Action-Plan.pdf>

improve efficiency, reduce complexity, and support future opportunities for investment. This in turn would lead to improved services to freight customers and consumers, and a stronger supply chain.

PN thanks you for the opportunity to support the Australasian Rail Association (ARA) and Freight on Rail Group (FORG) joint industry submission and contribute to shaping Australia's national freight supply chain. A more resilient and efficient national supply chain will improve reliability and boost national productivity and competitiveness. Should you wish to discuss any of the items raised in this

Yours sincerely


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