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Executive Summary

Pacific National (**PN**) welcomes the opportunity to engage with the Australian Competition and Consumer Commission (**ACCC**) and provide a submission on the Issues Paper and views on the regulatory framework for the Australian Rail Track Corporation's (**ARTC**) interstate network.

In PN's view, continued and harmonised regulation of the entire Interstate Network should have a focus on utilisation, investment and resilience as core objectives. This would deliver on ARTC's Charter objectives of:

- Providing seamless and efficient access to users of the interstate rail network.
- Pursuing a growth strategy for interstate rail through improved efficiency and competitiveness.
- Improving interstate rail infrastructure through better asset management and coordination of capital investment.
- Encouraging uniformity in access, technical, operating and safe working procedures; and
- Operating the business on commercially sound principles.

In turn, this would deliver improved investment, sustainability and throughput. Provided that the revised regulatory framework is underpinned by a sound regulatory pricing methodology that facilitates the achievement of these objectives. PN believes that this will lead to better service outcomes for our customers.

PN considers that a Regulatory framework built around the following principles would deliver on those charter objectives:

- Continued regulation of the entire Interstate Network.
- Conversion of freight to rail on North-South corridor.
- Utilisation, investment and resilience of the Interstate Network at the core of its objectives.
- Sound pricing methodology.
- Optimised for safety and long-term sustainability.

PN elaborates on these principles in its submission below.

Continued regulation of the entire interstate network

PN considers that continued and harmonised regulation of the entire Interstate Network is key to winning more freight off road to rail, and that this can be achieved with a sound pricing methodology in place across the entire network.

Since the introduction of the Hilmer reforms of the mid-1990s, the basis for imposing access regulation in Australia has been to regulate “bottleneck facilities” that display natural monopoly characteristics including “essential facilities” (railway lines being one example) insofar as access to the facility is required if a business is to be able to compete effectively in upstream or downstream markets.¹

The underlying natural monopoly characteristics of the interstate network (and Inland Rail) supports its economic regulation. The ARTC interstate network comprises a total of approximately 8,500 km of rail track, traversing five States. In the coming years, Inland Rail, a 1,715 km rail line between Brisbane and Melbourne will become fully operational. It will also be owned and operated by ARTC.

The ACCC’s issues paper identifies as one issue for examination whether ARTC faces the same level of competition across the entire network and asks whether, in areas where users have substitutes (examples provided are Sydney to Melbourne and Sydney to Brisbane), ARTC has market power on those corridors.

In PN’s view there is a strong case for the ongoing regulation of the entire Interstate Network, including the North-South corridor. The existing levels of modal share on rail on the North-South corridor are inconsistent with those one would expect to find if there was effective competition between road and rail. This is strongly suggestive of a problem with the current quality adjusted pricing of rail. It is therefore unsafe to proceed on the assumption that there is no need for regulation and no market power issue to be addressed.

Differences in road/rail pricing

To the extent that market share data shows that road has a significantly greater share of the movement of containerised freight on the East Coast corridors as compared to rail, this reflects the differences between how road and rail costs are recovered from transport operators with road freight operators at a distinct cost advantage.

A key objective of ARTC, which is consistent with the ACCC’s objectives in considering an access undertaking, is the efficient use of the infrastructure. North-South is currently under-utilised, and the current pricing structure is a material contributor to that particularly given the service quality issues associated with the network.

¹ Hilmer Report (1993), p 240.

Road freight operators are at a distinct cost advantage compared to above rail operators. Road freight operators are not required to pay an equivalent proportion of the costs of constructing and maintaining the road network as compared to the contribution to ARTC's below rail costs that above rail operators such as PN are required to make. This was acknowledged by the Productivity Commission in its 2006 Report into Road and Rail Freight Infrastructure Pricing.²

There are substantial discrepancies between the pricing approaches applied to road and rail freight industries. The current imbalance has created significant economic, productivity and competitive imbalances in the freight markets that are reliant on access to both road and rail infrastructure networks to compete for market share.

The price discrepancies that have emerged between road and rail freight infrastructure charges between FY2013 and FY2021 is illustrated in the Table 1 below.

Table 1: Rail and Road freight access charges FY2013 – FY2021³

	Compound average annual growth	Total increase
Road user charges (B-double)	0.3%	1.4%
Rail access charges	2.2%	22.3%
Road freight index	2.2%	21.7%
Rail freight index	4.9%	54.4%

Network infrastructure charges for road freight have historically been set by the National Transport Commission through a cross-jurisdictional investment recovery model known as PAYGO. In recent years, road infrastructure charges have been held constant:

- in 2015, the Federal and State Transport Ministers agreed to freeze road infrastructure charges at 2015-16 levels for two years;⁴ and
- in 2017, Ministers agreed to continue to freeze road infrastructure charges for a further two years.⁵

As registration charges for B-doubles had already been reduced prior to 2015, this has meant that B-double road infrastructure charge increases were very negligible between FY2013 and FY2020. At the same time, heavy vehicle operators have benefitted immensely from the significant investments made by Federal and State governments in the national and state road networks including major improvements to the Pacific and Newell highways.

² Productivity Commission, *Inquiry Report No. 41 – Road and Rail Freight Infrastructure Pricing* (2006).

³ PN's submission to the National Inquiry on the Economic Impact of Transport Regulation, "Transport Infrastructure Pricing Reform Essential". Data points are PN estimates.

⁴ Department of Infrastructure, Regional Development (2015), Transport and Infrastructure Council Communique, Adelaide, 6 November 2015.

⁵ Department of Infrastructure, Regional Development and Cities (2017), Transport and Infrastructure Council Communique, Hobart, 10 November 2017.

Hence, over the past decade, the pricing discrepancies between road and rail have only been further exacerbated with rail freight infrastructure charges continuing to be set according to a regulatory process which considers asset investment value, while road freight infrastructure charges are not.

The key differences in how the setting of road and rail infrastructure charges is undertaken is illustrated in Annexure 1 below. These differences have led to the rail freight industry paying significantly more for access to rail infrastructure than the road freight industry pays to access all public roads.

The estimated cost differential in the different infrastructure charges paid by rail and road freight operators is shown in Table 2 below.

Table 2: Estimated cost differential (cents/NTK) in infrastructure charges⁶

Key corridor	Semi	B-double	A-double	Rail	Cost differential paid by rail as compared to road (B-double)
Bris - Cairns	5.37	5.55	4.84	8.92	60.7%
Melb - Adel	5.22	5.30	5.12	8.79	65.8%
Melb – Perth	5.34	5.49	4.67	8.77	59.7%
Syd – Perth	5.29	5.42	4.60	9.01	66.2%
Bris – Melb	5.37	5.56	4.84	7.94	42.8%
Bris – Syd	5.17	5.21	4.91	9.07	74.1%
Melb – Syd	5.19	5.24	4.98	7.22	37.8%

Both above-rail and below-rail infrastructure assets are characterised by large capital sunk costs, thus any volume increase which does not require capital investment substantially benefits both rail operators and rail infrastructure owners. This means increasing the rail freight volumes on key rail freight infrastructure corridors will improve network utilisation and reduce the per-unit cost of rail freight haulage services.

The most obvious source of a potential increase in freight volume is the containerised freight volumes that currently move by road. An opportunity for modal shift is particularly relevant on the North South Corridor where a small change in modal share will result in a significant volume of freight transferring from road to rail. Other sources of potential rail freight volume growth include seasonal agricultural products and freight tasks with uneven volume profiles. However, both sources of volume growth will require the negotiation of specific rail charging arrangements to make rail freight haulage more competitive with the road alternative.

⁶ PN's submission to the National Inquiry on the Economic Impact of Transport Regulation, "Transport Infrastructure Pricing Reform Essential". Data points are PN estimates.

A key objective of ARTC, which is consistent with the ACCC's objectives in considering an access undertaking, is the efficient use of the infrastructure. North-South is currently under-utilised, and the current pricing structure is a material contributor to that particularly given the service quality issues associated with the network.

The major determinants of modal choice for land freight transport are price and service performance. As set out above, the different pricing approaches applying to the road and rail freight industries result in allocative and productive inefficiencies.

Considerable economic benefits are derived from an increased utilisation of the rail network. Therefore, policy changes should be directed towards that goal.

The net effect of the existing rail infrastructure charging imbalance has been the long-term erosion in the ability of rail to compete for improved modal share of the growing National Freight Task and the consequential reduction in the revenue base. A reducing revenue base makes it difficult for rail operators to justify any further major investment in new freight terminals, rolling stock and related assets to win new business. Any continuation of the current trend will start to have adverse knock-on effects within the rail industry, given the aging nature of the below-rail infrastructure, above-rail rolling stock fleet, freight terminal facilities combined with the higher maintenance costs and reduced service reliability that comes with the aging infrastructure. Such an outcome will continue the rail industry's existing downward cycle and see the "managed decline of Australia's rail industry".⁷

Pricing methodology can increase utilisation of the rail network

PN considers that a pricing methodology similar to the pricing methodology adopted by IPART in its review of WaterNSW's rural bulk water services from 1 July 2017 to 30 June 2021 (2017 IPART Determination) would achieve increased utilisation of the rail network

The Issues Paper suggests that ARTC could not increase its access charges on its North South segments because this would cause ARTC to lose volumes as more rail volumes would switch to road.⁸ However, this analysis assumes that above rail operators would pass on the full increase in ARTC's access charges. Economic theory indicates that PN could only hope to pass on the full increase in ARTC's access charges where its customers' demand for its above rail services was highly inelastic (less sensitive to an increase in price). This is likely to be the case for only a very small proportion of PN's customers. Therefore, in reality, PN would have to seek to remain competitive in the market, meaning that it could only expect to pass on some (and not all) of any increase in its access charges.

It is also suggested that while it has been subject to the access undertaking, ARTC's tariffs have historically been set within the price floor to ceiling band. That is, ARTC has tended not to set its

⁷ PN's submission to the National Inquiry on the Economic Impact of Transport Regulation, "Transport Infrastructure Pricing Reform Essential".

⁸ ACCC, *Issues Paper – The regulatory framework for ARTC's Interstate network*, 25 August 2021, p. 11.

tariffs at the maximum ceiling level. Consequently, this conduct is advanced as suggesting that if ARTC were not regulated, then it would not be motivated to increase its access charges.

However, the pricing bands are very broad, it is difficult for users to derive the necessary certainty to reliably make investment decisions that would underpin capacity expansion.

PN considers that a pricing methodology similar to the pricing methodology adopted by IPART in its review of WaterNSW's rural bulk water services from 1 July 2017 to 30 June 2021 (**2017 IPART Determination**) would achieve the objectives noted above. A description of this pricing methodology is set out in Annexure 2.

A key feature of the 2017 IPART Determination was the efficient pricing band methodology adopted. IPART decided not to set prices based on full cost recovery of the notional revenue requirement in areas substantially below full cost recovery because IPART considered that full cost recovery was unlikely to be attainable in these areas over the determination period and going forward.

Instead IPART set prices having reference to an estimated efficient pricing band and by rebalancing fixed and variable charges.

IPART's view was that this approach should provide price stability and certainty for customers (particularly because consumers are no longer expecting prices to transition to full cost recovery). This approach would in turn provide customers with greater confidence when making long-term investment decisions and provide a clear signal to WaterNSW and the NSW Government that transitioning to a full cost recovery in areas substantially below full cost recovery is unattainable and thereby highlighting the need to assess long-term options and viability in these areas. This is discussed further below.

Regulating the North—South Corridor

PN does not agree that the case for regulating the North South corridor is not made out. The existing levels of modal share on rail on the north-south corridor are inconsistent with those one would expect to find if there was effective competition between road and rail.

Pacific National notes that the North-South corridor extends from Melbourne to Brisbane which exceeds the reference distance of 1,000km noted in the ACCC's Issues Paper. Traffic between Melbourne and Brisbane runs predominantly on the same tracks as freight between Melbourne and Sydney and between Sydney and Brisbane. It would therefore not be feasible to separate those routes from the broader corridor.

Additionally, an undertaking regulating part but not all of the network is complex for PN to manage and could impact services offered to customers. In a market where customers acquire rail freight services on a national basis and not a corridor-by-corridor basis, such complexity could result in customers switching away from rail not only on the North-South corridor but switching away altogether with viable alternative options on the East-West corridor (e.g. road, shipping).

Consistent with the continued price differential between road and rail costs on the North-South corridor, the estimated volumes of freight transported by rail has declined by close to 10% over the past three years. Had rail volumes increased in line with the increase in overall economic activity, rail volumes would have increased by 6.33%. Over the same period, PN's volumes on the North-

South corridor decreased by 9.66% with an overall estimated reduction in rail volumes of 18%.⁹ These trends are illustrated in Table 3 below.

Table 3: Rail TEU volumes on the North-South corridor¹⁰

TEU Volumes (FY)	2018	2019	2020	2021	% change
GDP growth on base	[confidential to PN]	[confidential to PN]	[confidential to PN]	[confidential to PN]	6.33%
Estimated rail volumes	[confidential to PN]	[confidential to PN]	[confidential to PN]	[confidential to PN]	-18.00%
PN volumes	[confidential to PN]	[confidential to PN]	[confidential to PN]	[confidential to PN]	-9.66%

This is strongly suggestive of a problem with the current quality adjusted pricing of rail. In addition, to price, other factors impacting on this erosion of rail share is cycle time, both a slowing down of cycle time of rail on that corridor due to lack of investment plus a speeding up of cycle time for road on that corridor due to increased investment. The increased investment in road has also led to allowing bigger trucks on roads increasing road's efficiency at the same time that trains have been required to slow down because of poor rail infrastructure. It is therefore unsafe to proceed on the assumption that there is no need for regulation and no market power issue to be addressed.

A key objective of ARTC, which is consistent with the ACCC's objectives in considering an access undertaking, is the efficient use of the infrastructure. The North-South corridor is currently underutilised and the current pricing structure is a material contributor to that particularly given the service quality issues associated with the network.

If the ACCC did proceed on the basis that the case for regulating the North-South corridor was not made out and only part of the interstate network would be regulated, presumably this could change over time such that either additional segments of the interstate network would become regulated or additional segments of the interstate network would cease to be regulated.

PN considers that such an outcome would not be workable. PN submits that not only should the ARTC interstate network remain regulated, but that the entirety of it should be regulated, for the following reasons:

- There is no precedent in Australia of a rail network being only partially regulated. All of ARTC's Hunter Valley rail network is regulated, as is all of Aurizon Network's Central Queensland rail network (and Queensland Rail's below rail network);
- To introduce regulation on only some segments of the interstate network but not others would add unnecessary regulatory complexity, economic inefficiency and uncertainty. For example, the transaction costs incurred by ARTC and PN (and other above rail operators) would only increase as a result of the parties having to negotiate access terms on the unregulated segments of the interstate network and adhering to the regulated access terms on the regulated segments of the interstate network; and
- As stated above, the ACCC erroneously assumes that ARTC could not exercise its market power and seek to increase its access charges on the segments between Brisbane and Sydney and Sydney and Melbourne. To the contrary, PN considers that

⁹ Aurizon Limited ceased operating freight haulage services on the North-South corridor on 31 December 2017.

¹⁰ Data points are PN estimates.

ARTC will seek to increase its access charges to the greatest extent possible, even on the North-South corridor.

In relation to PN's services operating between Perth and the East Coast, they are subject to two separate below rail operators and access regimes. Between Perth and Kalgoorlie, PN utilises the below rail network that is owned and operated by Arc Infrastructure. From Kalgoorlie to the East Coast, PN utilises the ARTC interstate network. Whereas the access charges levied by ARTC are regulated under the access undertaking, the model that applies for the Arc Infrastructure network is a negotiate/arbitrate model. This poses significant issues for PN. Not least is the different operating standards applied in the different jurisdictions. The quality of infrastructure is inconsistent as the network provider will often divert resources to other corridors within a broader portfolio. In terms of opportunity on price negotiation this is non-existent with PN absorbing double digit increases above CPI over the last five years. This example illustrates the unnecessary complexity, inefficiency and uncertainty exhibited by PN having to navigate two separate rail networks and access regimes.

The transition to Inland Rail

PN considers that continued and harmonised regulation of the entire Interstate Network is important and in fact necessary to transition to Inland Rail

The Inland Rail Business Case projects that it would increase rail's share of the Melbourne to Brisbane market from 26% to 62% by 2050,¹¹ similar to its market share on the East-West corridor. The attractiveness of the Inland Rail stems from the fact that it is expected to significantly reduce the travel time for services operating between Melbourne and Brisbane, down from the current 33 hours to less than 24 hours, providing a simpler transit.

However, this presupposes an underlying customer use case for rail. If regulation of the North-South corridor were to be removed and PN faced different and potentially higher access charges on the North-South corridor and/or reduced incentives for investment in that corridor and ARTC de-prioritised investments in favour of Inland Rail, this combination could lead customers to shift away from rail before Inland Rail is completed. Customers themselves need to invest in their own infrastructure sensible for their own logistics requirements. PN is concerned that customers who switch away from rail ahead of the Inland Rail project completing may not switch back given their own infrastructure investments. As such, PN considers that it is critical to continue to regulate the North South corridor to ensure that there is a continuity of rail usage by customers and this should not wait for Inland Rail.

As stated above, the Inland Rail displays the same natural monopoly characteristics as the interstate network. As such, if the predicted market share is realised, ARTC will have both the ability and incentive to exercise market power and increase its access charges, if left unregulated.

¹¹ ARTC, *ARTC 2015 Inland Rail Programme Business Case* (2015), p 16

The regulatory framework should have utilisation, investment and resilience of the Interstate Network at the core of its objectives

A regulatory framework that has as its objectives increased utilisation of the network, network investment and performance and network sustainability and resilience is consistent with ARTC's charter and its pursuit of a growth strategy for interstate rail through improved efficiency and competitiveness.

It is accepted that there are considerable economic benefits when there is an increase in the movement of freight by rail, as opposed to its movement by road.

It has been estimated that by 2030, more than 32 million tonnes of freight will need to be moved on Australia's highways and railways between Brisbane and Melbourne.¹²

A regulatory framework that has as its objectives:

- increased utilisation of the rail network;
- rail network investment and performance; and
- rail network sustainability and resilience,

is consistent with ARTC's charter and its pursuit of a growth strategy for interstate rail through increased investment, improved efficiency, sustainability and competitiveness.

Such objectives would also be consistent with the overall objectives of Part IIIA of the CCA, being to promote the economically efficient operation of, use of and investment in infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets.¹³

PN is not opposed to ARTC earning a commercial return on its investment. Rather, PN favours the implementation of a regulatory framework that ensures an increase in the utilisation of the interstate network thereby ensuring the long-term efficient investment by ARTC in the interstate network and by PN in its above rail assets leading to an improvement in the speed and quality of its services, ultimately benefitting its customers.

Increased utilisation of the rail network

An increase in the utilisation of the interstate network will also lead to an increase in economic efficiency. In this sense, PN considers that the increased utilisation of the interstate rail network will not only result in the supply of goods or services at lowest cost (productive efficiency), but also the use of available resources to produce the mix of goods and services that consumers value most (allocative efficiency).

¹² ARTC, *The Case for Inland Rail + Summary of the 2015 Business Case* (2015), p 4.

¹³ Section 44AA of the CCA.

At the same time the increased utilisation of the interstate network will reduce the negative externalities associated with the movement of freight by road. A number of negative externalities/costs are associated with road transport. These include:¹⁴

- **Accidents** – across the road network, the rate of involvement in fatal accidents is significantly higher for heavy vehicles than for other vehicles. Deloitte Access Economics estimated that rail accident costs were up to 14 times lower than road accident costs for every kilometre of freight moved¹⁵;
- **Carbon / greenhouse emissions** – heavy vehicles contribute to 14 percent of total transport sector greenhouse emissions (or 3 percent of total Australia emissions) whereas rail freight contributes less than half of 1 percent; and
- **Pollution** – in addition to carbon emissions, road transport is a predominant source of nitrogen oxides, carbon monoxide and particulate matter emissions. Deloitte Access Economics estimated that rail freight produces up to 16 times less carbon pollution than road per tonne kilometre travelled¹⁶; and
- **Congestion** – this is an external cost well established in the economics literature as the cost that an additional road user entering a congested traffic stream imposes on all other road users. One additional PN services will, on average, remove up to 110 “B double” heavy vehicles from the road.

The Inland Rail is designed, amongst other things, to reduce a number of these negative externalities, such as:

- **Reducing Accidents** – Inland Rail is estimated to save 5 lives and avoid 15 serious road accidents per year;
- **Reduce carbon emissions** – Inland Rail is estimated to emit 750,000 fewer tonnes of carbon and 1/3 of the fuel of road; and
- **Reducing congestion** – Inland Rail is estimated to achieve \$738 million in reduced road congestion costs and \$622 million in reduced road maintenance costs, as well as reducing the number of trucks in regional towns (160 fewer trucks in Parkes and 356 fewer trucks in Toowoomba by 2030).¹⁷ A regulatory framework that increases the utilisation of the interstate rail network will further advance these aims.

Improved network investment and performance

The major determinants of modal choice for land freight transport is both price and service performance.

A regulatory framework that has as its objectives increased utilisation of the network, network investment, performance and network sustainability would increase the attractiveness of rail for

¹⁴ Bureau of Transport and Regional Economics, *Submission to the Productivity Commission road and rail freight infrastructure pricing inquiry*, August 2006, pp 17 – 25.

¹⁵ Deloitte Access Economics, *Value of Rail: The contribution of rail in Australia* (2017), p iv.

¹⁶ Ibid.

¹⁷ Inland Rail, February 2021.

customers and give PN the confidence to make the investment decisions necessary to increase track utilisation.

Performance

Reducing transit times distance is a key determinant of both transit time and cost for rail. For rail to be competitive it is important that transit times that meet customer requirements are achieved.

When PN surveys its customers, the top three impediments to modal shift in order of importance to customers are as follows:

- Service availability and reliability;
- Transit time;
- Price.

In PN's view, service reliability and transit time are affected by factors including:

- **Passenger priority afforded passenger services.** PN and other freight operators lose capacity due to passenger priority. Passenger services use more network capacity than freight services and take more paths because they have more services. When PN departs on time, it should expect that its service will arrive on time unless there is a delay caused by PN. PN will account for speed restrictions and other factors when allocated a path by ARTC. However, even in circumstances where PN's service is on time, passenger priority rules mean that there are circumstances when an 'unhealthy' passenger service is prioritised over a healthy freight service. Once PN misses a path, it is almost impossible to reset and achieve on time delivery.
- **As a recent example:** A passenger train was 10 minutes late and a PN train on time. As the passenger train was given priority under the network rules the consequence was that the PN train waited for 30 minutes to cross the passenger train instead of advancing to the next crossing location. Consequently, the PN train was unhealthy and lost a further 60 minutes for other priorities on different services. PN's train was, therefore, 90 minutes late to destination. A worst-case scenario could be hours if the train was put aside for multiple hours in the case of a clash with Sydney trains peak. This priority convention results in inconsistent customer service and impedes rail attractiveness as a mode of freight transport.
- **Lack of track investment.** PN considers that track investment, particularly on the North South corridor is necessary to improve service reliability. The investment on the North South corridor to date has been to sustain the status quo which has been insufficient to improve service reliability. Recognising that the inland rail project is about changing transit times and track axle loads, inland rail is still some years away and PN is of the view that more investment should be made now to improve service reliability on the North South corridor.

For example, Infrastructure Australia's evaluation of the business case for the North East Rail Line (316 km passenger and freight line between Melbourne and Albury) upgrade noted that,

There is relatively poor punctuality, reliability and passenger comfort on the North East Rail Line, compared with other regional Victorian passenger lines. While the ARTC continues to outperform its freight and passenger track performance metrics under its current lease agreements, there is a gap between these standards and community expectations. Due to the poor condition of the track, passengers on the North East Rail Line experience issues with the ride quality, comfort and reliability of V/Line services, which has contributed to an 11.8% per annum decline in demand

from 2013 to 2018. Many travellers also choose to use the Hume Highway which is an attractive alternative to the rail line because of its faster travel times.¹⁸

The project identified capital improvements to improve track quality, by removing mud holes, upgrading tracks and signalling and improving drainage that could thereby reduce delays through higher average travel speeds and improving punctuality and ride quality for passengers. However, as noted by Infrastructure Australia while the project facilitates faster travel speeds and the operation of faster and newer rolling stock in the future, the business case did not propose additional rail services, new rolling stock or faster timetabled travel times, and the project would not benefit freight services.

Investment

PN operates to maximise utilisation of its critical assets, rolling stock and locomotives while maintaining the condition and renewing where necessary these assets over. PN has announced an investment in 50 new fuel-efficient diesel-electric locomotives.

In order to build a business case to invest in new, additional, locomotives and wagons (contrasted with fleet renewal) PN would need to have the confidence that it could deploy these assets to service new business. As an example, a new train set, (ie locomotives and wagons) cost approximately \$50 million each. One new train set would enable PN to run an additional 3 return services on the North-South corridor. Currently, the trains operating on the North-South corridor are at [confidential to PN].

However, with improved path planning, transit time and quality of operational performance and access pricing to incentivise road to rail conversion, PN would be in a better position to make the investments necessary to increase capacity on the network and provide the service standard and reliability required by end customer.

Sound pricing methodology should underpin the regulatory framework to achieve these objectives

The Regulatory Framework should be underpinned by a sound regulatory pricing methodology that facilitates the achievement of these objectives.

Pricing regulation should:

- Incentivise ARTC to price in a way that allows it to recover its costs, earn a rate of return on assets, grow the rail freight task and provide the flexibility and incentives necessary to invest in the network;
- Give rail freight operators predictability and certainty of price and incentivise them to price in a way to win and maintain freight on rail and to invest, innovate and “grow the pie”.

¹⁸ https://www.infrastructureaustralia.gov.au/sites/default/files/2020-01/north_east_rail_link_evaluation_summary_0.pdf

PN's position on ACCC's proposed pricing models

The ACCC has asked for PN's comments on the regulatory price determination models described in section 5.2 of the Issues Paper. PN considers that it is appropriate to consider those pricing models not in a vacuum but against the following key objectives:

- maximising network utilisation and volume;
- providing certainty for participants;
- the extent to which the pricing model imposes administrative burdens on participants;
- whether the pricing model facilitates incentives for user investment; in the short term this may mean ARTC would cover cash costs but in the longer term move towards an appropriate ROI in an economic sense for the government shareholders.
- whether the pricing model enables transition to inland rail;
- network resilience and performance;
- harmonisation across the national network.

Set out in Table 4 below is a matrix in which PN has evaluated each of the price determination models described in the Issues Paper against these key objectives.

Table 4 – Matrix evaluation of regulatory methods

Regulatory Method	Maximise Network utilisation /Volume	Pricing Certainty	Administrative Burden	Facilitates investment	Transition to Inland Rail	Network resilience and performance	Harmonisation across Interstate Network
DORC-based RAB valuation	Not related to increases in volume therefore would not contribute to this objective	As there is a floor and ceiling range, there is some price certainty. However, where that range is large, pricing certainty is reduced	Regulatory approval and administrative processes involved for infrastructure owner, user and regulator	PN's position is that this method, i.e., status quo has been ineffective in achieving investment in above rail infrastructure	Under current settings PN considers that there would be little incentive to make the investments necessary to transition to inland rail	PN's position is that this method, ie status quo has been ineffective in achieving investment in facilitating network resilience and increased performance capacity	Still up to 4 different networks on interstate and all with different standards
Negotiate/ Arbitrate	PN is concerned that a monopoly provider driven by below rail returns only is unlikely, through the negotiate/arbitrate model to create the incentives to maximise network utilisation and volume increases.	Negotiating with a monopoly provider with narrow incentives to maximise price means that there may be less price stability over time For example, [confidential to PN]	Very low-level regulatory requirement on all stakeholders. However, users are likely to need to expend significant resources negotiating outcomes	In PN's view, this method has not been successful in facilitating investment.	With a monopoly provider there may be too much emphasis on returns below rail to create the incentives to transition to inland rail.	Does not provide guaranteed improvement on service levels	No framework to address this. Currently ARC uses a negotiate-arbitrate model. Standards across the network are not consistent.

Regulatory Method	Maximise Network utilisation /Volume	Pricing Certainty	Administrative Burden	Facilitates investment	Transition to Inland Rail	Network resilience and performance	Harmonisation across Interstate Network
Price Monitoring	While regulatory price monitoring may not achieve the optimum level of network utilisation, PN considers it would be an improvement on the current method	More likely to achieve price certainty	High level of resources is required to execute effectively	While regulatory price monitoring may not achieve the optimum level of network investment, PN considers it would be an improvement on the current method	Unlikely to address this objective in the transitional phase	No framework to address this	No framework to address this
Discounted Cash Flows (DCF)	While the DCF method may not achieve the optimum level of network utilisation, PN considers it would be an improvement on the current method	More likely to achieve price certainty	Less administratively burdensome than a price control option	May not achieve the optimum level of network investment, PN considers it would be an improvement on the current method	Likely to provide a better transition than the current method, but still will not necessarily address volumes	No framework to address this	No framework to address this
Price Controls without a RAB	Same as price monitoring but a $cpi - x$ may improve market share for rail	High price certainty	Once set and $cpi - x$ established less onerous than continuous monitoring	Some investment with the higher level of certainty	Likely to provide a better transition than the current method but not optimal	No framework to address this	No framework to address this
Hybrid of Price controls without RAB and using DCF to maximise network utilisation	If the cashflows could be set to maximise volume, PN considers that this option could maximise network utilisation	If pricing is related to demand this could provide good price certainty	Less administratively burdensome than a price control option but would require ongoing assessment	This would facilitate investment to match the extra volumes profitably	Would maximise chance of business case success over the medium term	No framework to address this	No framework to address this

In PN's view, a negotiate-arbitrate model would introduce unnecessary complexity, inefficiency and uncertainty. This has been PN's experience in other contexts, and PN considers that this complexity will be amplified when applied to the Interstate network.

In particular, PN makes the following points about the negotiate-arbitrate model:

- A negotiate/arbitrate model is an inefficient means to determine pricing and does not incentivise investment by above rail operators.
- There is much less ability to predict future pricing in a negotiate-arbitrate model. This makes it difficult for above rail operators to plan and price customers with the level of certainty customers require.

- Commitments on infrastructure quality, rollingstock standards and infrastructure operations (eg reducing speed restrictions and improving rail quality) are unlikely to feature in a negotiate-arbitrate model.

Commitments on infrastructure quality are important for above rail operators. They give above rail operators the confidence to invest in rolling stock that is more efficient. For example AC traction enables above rail operators to invest in more efficient rolling stock which can have positive flow on impacts for track owners. The load benefits from AC will enable more loading per train services thus freeing up pathing capacity (below rail benefit) and lowering unit costs per train service.

Preferred pricing methodology

As noted above, PN considers that the pricing methodology adopted by IPART in its review of WaterNSW's rural bulk water services, the **2017 IPART Determination**, would achieve the desired objectives. A description of this pricing methodology is set out in Annexure2.

A key feature of the 2017 IPART Determination was the efficient pricing band methodology adopted. IPART decided not to set prices based on full cost recovery of the notional revenue requirement in areas substantially below full cost recovery because IPART considered that full cost recovery was unlikely to be attainable in these areas over the determination period and going forward.

Instead IPART set prices having reference to an estimated efficient pricing band and by rebalancing fixed and variable charges.

IPART's view was that this approach should provide price stability and certainty for customers (particularly because consumers are no longer expecting prices to transition to full cost recovery). This approach would in turn provide customers with greater confidence when making long-term investment decisions and provide a clear signal to WaterNSW and the NSW Government that transitioning to a full cost recovery in areas substantially below full cost recovery is unattainable and thereby highlighting the need to assess long-term options and viability in these areas.

Efficient pricing band

For the 2017 Determination period IPART set prices having reference to the estimated efficient pricing band, where the efficient pricing band lies between:

- An upper limit that represents customers' estimated capacity (or willingness) to pay for WaterNSW's services; and
- A lower limit that represents an estimate of the costs WaterNSW would avoid if it did not have to supply an additional unit of water to that customer (avoidable cost).

The upper limit of the efficient pricing band reflects the prices at which a 'reasonably efficient' customer's estimated capacity to pay for services would be reached (i.e. the dollar value up to which a customer would pay for a unit of goods or services).

After receiving feedback from stakeholders, in the 2017 Determination IPART estimated capacity to pay by calculating the point where marginal revenue was equal to marginal cost and relying on parameters/assumptions for a typical/average irrigator.

At prices above a customer's capacity to pay, the customer would no longer pay for a unit of goods or services. This would result in demand for those services reducing, further reducing the numbers of customers, usage and entitlement volumes, and revenue and level of cost recovery. Setting prices below a customer's capacity to pay in the short-term may help to stimulate demand and confidence.

The lower limit of the efficient pricing band was estimated by IPART as a percentage of WaterNSW's total cost of supplying rural bulk water services, reflecting the fixed costs of providing services and the avoided cost of not supplying an additional customer.

The efficient pricing band estimates can be refined over time.

The question is what is an appropriate proxy for a rail operator's willingness may be to pay. In PN's view, one option would be to calculate a road equivalent linehaul price and deduct the costs of an efficient rail operator.

Setting prices – tariff structure

Having established the efficient pricing band, IPART then adjusted the fixed to variable tariff structure so that overall prices fell within IPART's efficient pricing band estimates. IPART decided to adjust the tariff structure rather than using the mid-point of the efficient pricing band to set prices.

IPART adjusted the fixed to variable tariff structure in order to achieve a lower usage charge. Specifically, IPART rebalanced the fixed and variable charges to reduce the latter to the point where demand might be stimulated and revenue increased in the medium-term.

The 2017 Determination does not propose an adjustment to the regulatory asset base in order to determine appropriate pricing.

Safety and sustainability

A regulatory framework that has as its focus sustainable economic, safety and environmental outcomes should facilitate a recalibration in the shift away from rail transportation and towards an increased utilisation of the interstate rail network.

The ACCC should also take into consideration the objectives of safety and sustainability when considering the appropriate regulatory framework for the ARTC which should be optimised for sustainable economic, safety and environmental outcomes for all users.

A particular focus on these objectives will ensure that all participants in the industry plan for the long term and make investment decisions accordingly.

As noted above, the transportation of freight by rail gives rise to a number of positive externalities including:

- **Safety** – It is a far safer way to transport freight resulting in fewer accidents and resulting deaths or significant injuries to people. This also reduces the economic costs associated with traffic accidents;
- **Less congestion** – It results in less congestion on major highways as each additional rail service removes the equivalent of 110 trucks per 1 standard train from the road; and
- **Better environmental outcomes** – It is far better for the environment, in terms of it resulting in far fewer carbon emissions and pollution more generally than the transportation of freight by road, and is also more fuel efficient, resulting in the consumption of less fossil fuels.

Safety

The inclusion of safety as a relevant consideration in the economic regulation of infrastructure is not new. The original access criteria included in Part IIIA of the then *Trade Practices Act 1974* (**TPA**) included safety as a relevant criterion. That is, a relevant service could only be declared under Part IIIA of the TPA/CCA if it was safe to provide third party access to the relevant service.

Safety is also a central feature in the regulation of the following economic sectors:

- Town planning and zoning, especially as it relates to the availability and sale of alcohol in the community. Such regulations control the sale of alcohol, limit the trading hours of outlets, the type of outlets that may sell alcohol and the number of outlets permitted in the community;
- The supply of consumer goods (under the Australian Consumer Law);
- The supply of pharmaceutical drugs to consumers;
- Workplaces;
- Passenger and freight transport, by all transport modes;
- Manufacture and supply of motor vehicles.

Environmental outcomes

Similarly, the inclusion of environmental factors or outcomes in a regulatory scheme is not uncommon.

The whole scheme of State and Commonwealth laws and regulations concerning environmental protection have at their heart the need for residential, commercial and industrial developments to have as minimal an adverse impact on the natural environment as possible and to require the abatement of any adverse impacts in appropriate circumstances.

Annexure 1

Differences between road and rail freight infrastructure charges¹⁹

PAYGO Model	ARTC Rail Charging Model
<p>Passenger-related infrastructure assets and costs excluded from road freight infrastructure charges</p>	<p>Passenger related assets and costs included in the calculation of rail freight infrastructure charges</p>
<p>The current PAYGO road infrastructure charges are based only on 22% of the value of the historical road spend for the 7 years prior to 2012. They also excluded the value of any road infrastructure built prior to 1995.</p>	<p>ARTC's rail infrastructure charges are based on a Regulatory Asset Base (RAB) which includes 100% of the value of all rail infrastructure comprising the Defined Rail Interstate network, regardless of age and condition, the value of ARTC's assets are not depreciated in accordance with tax accounting rules with elements of the infrastructure comprising the network having been built more than 100 years ago.</p>
<p>Major road investments and upgrades are subject to rigorous cost benefit analysis and reference the "public good" nature of the assets being constructed.</p>	<p>ARTC's investments in the last 10 years have been included in the asset base in response to Government policy objectives and were not subject to any rigorous cost benefit analysis, with many of the rail projects funded under Commonwealth budgetary stimulus packages. ARTC's rail spend is subject to any prudence tests with respect to the treatment of the Government funds for the purpose of rail freight infrastructure charges, nor is there any separation or allocation of the value of those assets that should be included in the RAB for setting rail infrastructure charges.</p>
<p>Road Freight infrastructure charges do not include a rate of return on value of the historical road spend.</p>	<p>Assets in the regulatory asset base are expected to provide a return on investment</p>
<p>The incremental costs of heavy vehicles using the road network (wear and tear) is theoretically calculated (proxy circa 22% of road maintenance spend in the previous year) is passed through to heavy vehicle operators via the road infrastructure charges. Road infrastructure charges do not include a rate of return mark up on the actual maintenance cost</p>	<p>100% of ARTC's rail maintenance and operating costs are directly passed through to rail freight users, with some categories of rail maintenance also being marked up with a 10% rate of return requirement for ARTC.</p>

¹⁹ PN's submission to the National Inquiry on the Economic Impact of Transport Regulation, "Transport Infrastructure Pricing Reform Essential".

PAYGO Model	ARTC Rail Charging Model
Road infrastructure charges (i.e. 22% of the value of the historical spend) are socialised across 100% of all road freight infrastructure charges, with no differentiation in the road infrastructure charges payable by a truck travelling between Sydney and Melbourne on an infrequent basis versus the volume of traffic generated by large trucking companies move trucks continuously along all road networks across Australia (free-rider advantages)	Rail Infrastructure Charges are set to recover all the costs specific to geographic segments of the Defined Interstate Rail Network (postage stamp pricing).
Any changes proposed by the National Transport Commission must be agreed to by all Commonwealth, State and Territory Transport Ministers. Transport Ministers take the trucking industry's concerns into account as well as considering broader public policy social objectives.	ARTC, as a Government Owned Corporation (GOC) is subject to the Corporations Act and is required to price its rail freight infrastructure assets in accordance with its financial mandate to recover 100% of its maintenance, operational and capital costs, plus depreciation and plus a commercial rate of return.
Road infrastructure charges include the diesel fuel tax payable by the trucking industry to the Commonwealth Government. The diesel fuel tax is set at 25.8 cents per litre.	The rail freight industry is exempt from the payment of the diesel fuel tax.
Productivity improvements that reduce fuel consumption per GTK directly translate to road freight users as a reduction in their road infrastructure charges.	Rail infrastructure charges per GTK do not incentivise productivity improvements from rail freight operators.

Road reforms that result in the imposition of greater user charges (for road freight operators), to more accurately reflect the cost of constructing and maintaining the nation's major highways (especially on the East Coast) will place above rail operators on a more level footing with road operators. The Productivity Commission found that if heavy vehicle road charges were to increase, this might allow below-rail operators to become more commercially viable, either by attracting greater volumes of traffic or by increasing their charges.²⁰

The Productivity Commission has also noted that a failure to account for externalities in road or rail freight prices could distort consumption and production of freight services, generating efficiency losses.²¹

²⁰ Productivity Commission 2006, *road and rail Freight Infrastructure Pricing*, Report no. 41, Canberra, p 158.

²¹ Productivity Commission 2006, *road and rail Freight Infrastructure Pricing*, Report no. 41, Canberra, p 45 and Productivity Commission 2020, *National Transport Regulatory reform*, Report no. 94, Canberra, p 276.

Annexure 2 - IPART pricing methodology adopted in its review of Water NSW's rural bulk water services from 1 July 2017 to 30 June 2021

Context for pricing methodology being developed

When determining prices for WaterNSW's rural bulk water services, IPART apportions costs between customers and the State of NSW (on behalf of the broader community), according to the impactor pay principles. That is, those that create the need to incur the costs, should pay the costs.

Once IPART determines the customer share of the notional revenue requirement it then looks to set prices to recover this share.

At the time of IPART conducting its review for the 2017 Determination period, IPART aimed to set annual bulk water charges at prices to recover customers' share of the efficient costs of delivering WaterNSW's rural bulk water services (i.e. the customer's share of the notional revenue requirement). These charges were levied as a two-part tariff, comprising:

- fixed entitlement charges (\$ per megalitre of licensed entitlement); and
- variable usage charges (\$ per megalitre of water used (extracted from the river)).

However, for the 2017 Determination period, IPART decided not to set prices based on full cost recovery of the notional revenue requirement in valleys substantially below full cost recovery (all other valleys were at full cost recovery). IPART considered that full cost recovery was unlikely to be attainable in these valleys over the determination period and going forward.

Instead IPART set prices having reference to an estimated efficient pricing band and by rebalancing fixed and variable charges.

IPART view was that this approach should provide price stability and certainty for customers (particularly because consumers are no longer expecting prices to transition to full cost recovery). This should then provide customers with greater confidence when making long-term investment decision and provide a clear signal to WaterNSW and the NSW Government that transitioning to a full cost recovery in these valleys is unattainable and that they need to assess long-term options and viability in these valleys.

Pricing methodology – efficient pricing band

For the 2017 Determination period IPART set prices having reference to the estimated efficient pricing band, where the efficient pricing band lies between:

- an **upper limit** that represents customers' estimated capacity (or willingness) to pay for WaterNSW's services; and
- a **lower limit** that represents an estimate of the costs WaterNSW would avoid if it did not have to supply an additional unit of water to that customer (**avoidable cost**).

The upper limit of the efficient pricing band reflects the prices at which a 'reasonably efficient' customer's estimated capacity to pay for services would be reached (i.e. the dollar value up to which a customer would pay for a unit of goods or services).

There are a number of different methodologies for estimating a customer's capacity to pay. In its draft determination IPART used a proxy to measure capacity to pay by comparing the cost of irrigation pasture production (to which water costs are a substantial input) to the cost of dry matter bought-in feed (a substitute for pasture) in valleys that are below full cost recovery. After receiving feedback from stakeholders, in the 2017 Determination IPART estimated capacity to pay by calculating the point where marginal revenue was equal to marginal cost and relying on parameters/assumptions for a typical/average irrigator.

At prices above a customer's capacity to pay, the customer would no longer pay for a unit of goods or services. This would result in demand for those services reducing, further reducing the numbers of customers, usage and entitlement volumes, and revenue and level of cost recovery.

Setting prices below a customer's capacity to pay in the short-term may help to stimulate demand and confidence.

The lower limit of the efficient pricing band was estimated by IPART as a percentage of WaterNSW's total cost of supplying rural bulk water services, reflecting the fixed costs of providing services and the avoided cost of not supplying an additional customer.

The efficient pricing band estimates can be refined over time.

The question is what an appropriate proxy for a rail operator's willingness may be to pay. One option would be to calculate a road equivalent linehaul price and deduct the costs of an efficient rail operator.

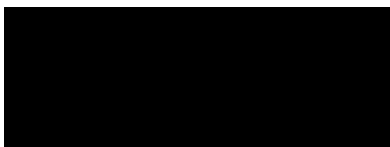
Setting prices – tariff structure

Having established the efficient pricing band, IPART then adjusted the fixed to variable tariff structure so that overall prices fell within IPART's efficient pricing band estimates. IPART decided to adjust the tariff structure rather than using the mid-point of the efficient pricing band to set prices.

IPART adjusted the fixed to variable tariff structure in order to achieve a lower usage charge. Specifically, IPART rebalanced the fixed and variable charges to reduce the latter to the point where demand might be stimulated and revenue increased in the medium-term.

The 2017 Determination does not propose an adjustment to the regulatory asset base in order to determine appropriate pricing.

Kind regards,



Jade Hooper
Head of Strategic Access Regulation and Policy
Pacific National