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Progress in Rail Reform: structures for the 21st century

The Regional Development Imperative

Productivity Commission Draft Report

The Productivity Commission commenced an inquiry into progress in rail reform in August 1998. The writer made a submission to the inquiry (No. 29), which also referred to his previous submission (No. 46) to the Inquiry into the Role of Rail in the National Transport Network undertaken by the House of Representatives Standing Committee on Communication, Transport & Microeconomic Reform. This submission raised issues concerning institutional (organisational) dimensions of rail freight operations and the role of rail in Regional Development.

The Terms of Reference for the current inquiry required the Commission to examine:

- the implications of the changing role of the Commonwealth, the States and the private sector in rail operations and ownership (Section 4 (f); and

- to take regard to the established economic, social, regional development and environmental objectives of governments (Section 5 (c)).

The Draft Report (March 1999) gives inadequate attention to these issues, particularly the established economic, social, regional development and environmental objectives of governments. Nevertheless, the material presented provides a basis for a more rigorous assessment of the implications of various rail reform agenda for these policies. This submission provides an examination of how rail freight reform in New South Wales might impact on economic, social and environmental objectives in general, and regional development objectives in particular.

Two policy imperatives underlie the case put forward here:

1. That a level playing field will be established in terms of road and rail user charges. The Draft Report finds that "the existing road user charging system for heavy vehicles under-recovers road costs" (p.216) and "current systems for charging road users do not take sufficient account of indirect external costs such as air pollution, accidents and congestion." (p.217). Draft Recommendation 9.3 calls for the Commonwealth Government to establish an inquiry into the provision, funding and pricing of roads in Australia. This issue is fundamental to rail reform and the recommendation is strongly endorsed.

2. Freight markets are evolving towards the provision of complete integrated services. Over the coming decade, the selling of rail freight or road freight will, to a large degree become superfluous. Complete logistics providers will use combinations of rail, road, sea and air services to move commodities and other items across State and national boundaries. In this environment, state ownership of infrastructure (tracks, roads, ports and airports) is likely to remain, but logistics providers will use the modes that offer the most efficient and cost-effective opportunities. Whether these choices incorporate social and environmental objectives depends on the pricing regime as noted above.

For the NSW Government, its rail reform initiative has been highly successful with respect to the Rail Access Corporation. The RAC has cut costs, improved the reliability of the track and helped open the NSW market to new competitors. Indeed, it is setting new standards of public sector corporate performance and accountability unmatched by the road provider and regulator, the Roads & Traffic Authority. However, the success of the RAC has brought into question the future of the Government's intrastate rail freight operator, FreightCorp. The changing economic climate means that the competitiveness and value FreightCorp will decline as more specialised logistics providers enter the market. Privatisation of FreightCorp while it still offers attractive assets to such operators should therefore be a priority for the NSW Government.

BUT, the information presented in the Productivity Commission Draft Report suggests that such reform should be carefully considered in terms of its impact on established economic, social, regional development and environmental objectives. This submission argues that a restructuring of FreightCorp into its distinctive regional identities prior to privatisation is a crucial reform to reorientate freight transport systems to the requirements of the 21st Century.

The Regional Railway

One of the most useful contributions of the Draft Report is the framework for analysing railways by their characteristics. The presentation highlights the differences between what it categorises as high volume regional networks and low volume regional networks and recognises that different reform strategies are required for each type of network.

However, apart from giving the Hunter Valley rail network in NSW as a classic example of a high volume regional network, the report does not define what constitutes a regional network. The changing economic and social structures over recent decades have helped forge clear regional identities in New South Wales. As detailed below, there are now clearly defined regional rail networks handling the intra-state freight transport task in NSW. The historical basis of these trends and their implications for rail networks and operations are examined in the following sections.

A Historical Perspective

While it is encouraging to see a historical overview of the development of railways in Australia in the Draft Report (Annex C), this would have been more useful if it had addressed some of the key economic and regional development policy issues shaped by Australian railway history.

The paradox of Australian railways is that while the political pressure to build railway lines into the interior came from rural communities, the net effect of the railway systems was to centralise economic and institutional power in the capital cities of the colonies. Not only did the railway

system of NSW radiate out from the port of Sydney (and to a lesser extent Newcastle), but differential freight rates were used to give city-based merchants and manufacturers a price advantage over country-based competitors.

A study of 19th century newspapers provides ample evidence of the impact of these policies. Numerous "indignation meetings" were held at inland centres protesting at the differential railway rates. Such a meeting at Orange in early 1884 protested that the policy was "injurious to the interests of the country and unjust to those of the interior"[1]. Moreover, the development of one single government railway system generated a large bureaucracy to operate it. It was hierarchically organised, decision-making power was focused at the centre and it served to draw the wealth of the colony to the metropolis. During the 1889 election campaign, growing division between the city and the bush emerged as an important issue. The *Town & Country Journal* summed up the mood in country areas as follows:

It is impossible to deny that there has been a tendency in legislation and official management to draw everything down to Sydney. Equally, it is impossible to deny that the country residents oppose this tendency as far as it cripples their freedom of action.[2] A follow-up editorial claimed: *Relations between the metropolis and the rapidly-improving country districts are becoming every day more significant; and the feeling of dissatisfaction is growing stronger in the country. The present arrangements suit the city… At present there is but one centre and everything goes toward it. It is this terrible concentration of centralism which is so objectionable and dangerous*.[3]

Rural dissatisfaction did not halt centralism. In response to the mounting criticism of railway rates, the Railway Commissioners made the following response in September 1893:

The Commissioners dismissed the alleged profitability condition of things in comparison with railways in America… If we had a few cities like Philadelphia, Washington, Pittsburg, Chicago and St Louis situated at Dubbo, Bourke, Hay, Tenterfield and Albury, and developed a considerable agricultural population, our rates could then be very materially lowered. Again, the average haul per ton of traffic in the United States is 119.7 miles whereas in NSW for 1892, the average haul was 60.6 miles. In consequence of the easier grades and very much more powerful engines in general use in the United States, the average number of tons hauled by train is 175 tons, whereas in NSW in 1892 trains averaged 58 tons only. The whole of the railway business done in NSW in 1892 earned an average of 1.6d per ton per mile; 79.5 per cent of the whole paying an average of .77d per ton per mile only; the remainder paying an average of 2.22d per ton per mile.[4]

Differential railway rates remained in 1907, when yet another public meeting noted that "beer could be delivered at Cobar from Sydney at the rate of £5 a ton, while it cost Orange brewers £5.11s.4d to send the same quantity, although 200 miles nearer. Coal could be sent from the West to Sydney for shipment at 4s 4d per ton and for ordinary purposes at 6s 2d per ton. For a similar distance on the Western line, the charge was 8s 6d per ton."[5]

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1 *Aust. Town & Country Journal*, 5 February 1884
2 *Aust. Town & Country Journal*, 9 February 1889
3 *Aust. Town & Country Journal*, 16 February 1889
4 *Aust. Town & Country Journal*, 23 September 1893, Railway Rates
5 *Aust. Town & Country Journal*, 6 February 1907

Railway operating performance has increased remarkably since the 1890s, but topography and the scale of economic activity in Australia continue to hinder efficiency in comparison with North America. Claims of poor productivity for Australian railways in comparison to North American achievements are not new; nor have the basic reasons for these differences changed significantly over the past 100 years.

The decline of rail as a dominant transport form in NSW since the 1920s, and particularly since the 1950s, reflects the inappropriateness of its 19th century routes. In this period, the road system has developed in response to new demand patterns for the movement of goods. The old colonial routes between adjacent capitals have given way to new direct inland routes, such as the Newell Highway, which take advantage of easy topography and congestion-free routes. At the same time, the growth in transport demand has largely emerged from integration within industry, both across industries and within regions, increasing living standards, and from new technologies in manufacturing and distribution industries. Much of the growth in transport demand has been in parallel-to-coast movement, rather than to-the-coast[6].

The traditional centralist organisation and route structure of the NSW railways meant that they missed out on most of the post-War growth in transport. Its network was not appropriate for the changed demand pattern and it was unable to compete against road on a time basis.

More recently, rapid advances in automation have driven revolutionary changes in economic and social structures. This revolution is driven by product innovations in communication, information, advanced materials, electronics and biotechnology. In this new order, the former emphasis on economies of scale, large bureaucratic structures, long-term commitment to human resources and investment of capital stock is no longer appropriate.

Now, there is a global competitive environment in which the stress is on economies of scope – the ability to supply a range of differentiated products – rather than of scale. This in turn requires an ability to rapidly innovate in product development and service delivery. Decentralised enterprises located outside the traditional urban conglomerates, but with the ability to access first-class human capital resources through collaborative networks of enterprises and institutions. In transport, this equates to innovative capacity to develop and deliver integrated logistical services that meet the changing needs of customers. The existing structures and *institutional culture* of FreightCorp have become a major constraint to its competing in the new environment.

Restructuring for the 21st Century

In 1996, New South Wales made significant reforms to restructure its railway system through horizontal and vertical separation of the previously integrated State Rail Authority system. However, the intra-state freight operator, FreightCorp, continues to reflect the centralist structures that were established in the 19th century. Organisation structures and decision-making are centred on Sydney; rail closures, employment redundancies and service cuts have fallen most heavily on regional centres. Coupled with similar changes in communications, banking and other services, rural communities have felt a sense of alienation in the wake of such "economic restructuring". In response, Government policy, particularly in NSW, has given greater emphasis to regional development issues.

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[6] Davidson, K, "refocusing Australia's Rail Network" *Railway Digest*, December 1996

As noted above, the trend in transport is toward integrated logistical services that utilise different transport modes. Given the long average freight hauls in much of NSW, use of efficient, high-speed rail the bulk of the land transport task provides the means of minimising costs and environmental impacts[7]. The integration of rail and road components of the haulage task requires efficient and well-located intermodal terminals. Efficiency in these terminals is a matter of location, internal operation and train configuration. Therefore, decisions about where to locate these terminals are integral with decisions about network configuration.

A major response to the changing transport demand pattern in Australia is the proposal to construct a high-speed (160kph) freight National Trunk Railway from Melbourne to Brisbane and Darwin via an inland route[8]. Strategically, this initiative offers the potential to reshape Australia's land transport system to respond to the demands of the 21st century. The NSW Government needs to respond to this opportunity.

This submission argues that, in order to achieve a modern, dynamic intra-state freight transport system, the NSW Government should restructure FreightCorp into regional bodies to better respond to the more flexible, decentralised economic reality of the modern, IT-based economy and the proposed National Trunk Railway. In this way, it can make a dramatic initiative in providing the people of NSW with modern, logistically-based transport systems to cope with the needs of the future AND provide an impetus for regional development.

From the above analysis of the history of railways in NSW, it is argued here that intrastate rail freight operations in that State fall into eight distinct regional networks as follows:

1. High Volume Regional Networks

- Hunter Valley rail network (652 route km dominated by high-density coal traffic)
- Metropolitan/Illawarra rail network (539 route km, mainly export coal traffic)

2. Low Volume Regional Networks

- North Coast rail network (584 route km, with orientation to Brisbane)
- New England-North West Railway (1183km branch-line network)
- Orana Regional Railway (1221km network with diversified traffic)
- Central-Western rail network (744km network with large regional centres)
- Southern rail network (721km network, including Canberra link)
- Riverina railways (1497km rural branch-line network)

Further details of these regional networks are provided in the attachment to this submission. It is of particular relevance that, except for the North Coast intra-state traffic and possible exception

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[7] Davidson, K, "refocusing Australia's Rail Network"*Railway Digest*, December 1996

[8] Subsequently known as the Australian Inland Rail Expressway System (AIRES), and now the Australian Transport & Energy Corridor Ltd (ATEC).

of the Southern system, these regional rail networks are larger scale operations on a net tonne kilometre (ntk) basis than the *Tasrail* network, which is highlighted in the draft report as a successful low volume regional operator (p. 24).

In my submission to the Inquiry into the Role of Rail in the National Transport Network undertaken by the House of Representatives Standing Committee on Communication, Transport & Microeconomic Reform, I argued that regional Australia offers largely untapped potential for local rail operators to revitalise local economies. This would be achieved by establishing improved rail services which are customer-orientated and lower cost than traditional operators, while establishing a community support base. Such service-orientated operators are part of the local community fabric and help overcome the alienation generated by large, centralised operators.

The analysis of low volume and high volume regional railways in the Productivity Commission Draft Report indicates that different strategies should be adopted for each category of railway.

Low volume regional railways are subject to intense competition from road transport. The Commission argues that they require a higher degree of autonomy, an increased commercial focus, improved flexibility and access to capital to be able to improve performance and compete more effectively against road. It should be added that more effective road price regimes would facilitate integration across modes to achieve efficiency and impact objectives in terms of regional development and environmental effects.

The argument is also put that vertical separation may hinder the performance of low volume regional railways as it may impair 'control' of train operations and access to capital. In the case of NSW, vertical separation has already occurred. This offers the advantage of providing an accountable, transparent rail access pricing structure based on actual use (weight and distance). Such a pricing structure provides the opportunity to incorporate real costs into transport pricing (including externalities). It provides a model for road infrastructure and pricing to emulate, and therefore to incorporate full economic costs into transport pricing. Therefore, the NSW vertically separated structure should be retained.

However, until appropriate road pricing regimes can be put in place, there is a strong case for restricting access in low volume regions to a single freight operator for a specified contract (lease) period with appropriate pricing structures to ensure competitiveness with road operators.

High volume regional railways present a very different situation. Here, according to the Commission, lack of competition has allowed inefficiencies in the transport of freight to develop. Eliminating monopoly rent and improving the efficiency of these railways are the key issues to be addressed. In NSW, reforms for vertical separation and open access are already in place. However, new operators have found it difficult break into core rail freight haul tasks. While this situation remains, privatising FreightCorp's high volume regional railway operations would simply transfer monopoly power from a relatively benign government agency to an aggressive private sector operator. Clearly, a well thought through strategy is required to enhance efficiency through competition.

In the case of the Metropolitan/Illawarra regional rail network, horizontal separation of high volume freight operations from passenger and interstate movements is a significant problem. Further infrastructure investment is required to reduce this problem.

Rail Reform Strategy

The proposed steps for further reform of intra-state rail transport in NSW are as follows:

1. Structure FreightCorp assets and staff into regional companies, each with responsibility for rail freight services within its region and with access to a terminal facility in Sydney and other ports of relevance to that region's traffic.

2. For the inland regional networks (New England/Northwest, Orana, Central West and Riverina), develop a 10-year strategic plan in consultation with local government and regional bodies. This plan would be based on the potential construction of the Australian Inland Railway (ATEC) and the role of a regional operator in the context of this new railway. In the case of the Southern Regional Rail Network, a 10-year strategic plan should be developed from consultation between the State and Federal Governments over the upgrading of rail links to Canberra.

3. Proceed with the privatisation of the New England/Northwest, Orana, Central West and Southern Regional Freight Networks assets on the basis of a 15-year renewable lease over the assets[9]. It is envisaged that bidders would comprise consortia of transport logistics firms and specialist rail operators. The privatisation process should include provision for Community Service Obligation payments for private operators to provide services on low-density lines and evaluation criteria should cover proposed investments by the bidder to upgrade infrastructure and increase rail's market share of the transport task. The involvement of regionally-based institutions in the consortium and provision for local shareholding should also be criteria.

4. In the case of the Northern Rivers and Riverina Networks, where private operators are already established, the efforts of these firms in establishing viable operations should be recognised. These operators appear to have a strong local base and are already making a contribution to regional development in their respective areas. Negotiation with that operator for a 15-year renewable lease over FreightCorp assets in that region at a commercial market rate would be most appropriate.

5. In the case of the high volume regional networks (Hunter and Metropolitan/Illawarra), there should be further assessment of the most appropriate strategy for establishing a competitive freight transport industry in which the potential of rail is realised.

Rail Passenger Operations

This assessment focuses on intra-state freight services. There remains the issue of regional passengers services, which in NSW are provided by the heavily subsidised *Countrylink* arm of the State Rail Authority. These services are largely provided as a Community Service Obligation and the standard of service is a matter of constant complaint by many of the users. Apart from general dissatisfaction with on-board customer service, there is also a strong perception within the regional areas serviced by *Countrylink* that its operating schedules are orientated to the interests of the city rather than the country.

[9] The recent privatisation of V/Line Freight in Victoria should serve as a model for the bidding and evaluation process.

While the new owners of the regional rail networks will be primarily freight service providers, some of them may also provide passenger services – either directly or through subsidiaries – given suitable incentives. Such provision of passenger services is likely to have a stronger customer focus that the present *Countrylink* operations and they would be developed from the perspective of local users. Therefore, the policy of the NSW Government should facilitate the provision of passenger services by regional operators where these are potentially viable.

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North Coast Rail Network

Base: Casino
Routes: Casino-Murwillumbah (129km); Casino-Kyogle (29km); Casino-Taree (426km), **Total 584km**
Major Centres: Lismore, Murwillumbah, Casino, Grafton, Kempsey, Taree
Characteristic: Low volume regional freight traffic overlaying mainline inter-state traffic. Northern Rivers Railroad (NRR) provides services as sub-contractor to FreightCorp.
Core Traffic: Fly ash, cement, sugar, Cargill soyabean
Ports: Brisbane (Fishermans Island), Newcastle
Strategic Issues: Most of track is part of inter-state network. Lack of investment in improved alignments/grades for modern rail operations. Northern section currently covered by Northern Rivers Railroad. Propose extend cover to Taree. Develop transport logistics services to link major centres of region with Brisbane port and other key outlets. NRR plan introduction of tourist passenger train services in 1999.

Hunter Region Rail Network

Base: Broadmeadow

Routes: Broadmeadow-Murrurundi (189km); Maitland-Taree (187km); Broadmeadow-Wyong (62km); Muswellbrook-Ulan (148km); Maitland-Pelton (32km); other colliery loops (81km); Koorangang Island (15km). **Total 652km.**

Major Centres: Newcastle, Maitland, Muswellbrook

Core Traffic: High density coal traffic to export port, >50 million tonnes per year over separated coal roads; Gloucester/Taree milk

Ports: Newcastle (Bullock Island, Koorangang Island)

Strategic Issues: Key issue is establishing competition for coal transport. The dominance of coal traffic has pushed other potential rail freight operations aside, but redevelopment of the former steelworks site as a multipurpose cargo terminal provides new opportunities.

Infrastructure Investment: Redevelopment of steelworks site as multi-purpose cargo terminal; Fassifern-Hexham direct line (22km with 130kph capacity); Hexham/Cardiff rail terminals

New England-North West Region

Base: Werris Creek-Tamworth

Routes: Murrurundi-Dumaresq (237km); Werris Creek-Binnaway (147km); Binnaway-Gwabegar (144km); Werris Ck-Weemelah (352km); Narrabri-Walgett (167km); Burren-Merrywinebone (53km); Camurra-North Star (83km). **Total 1183km**

Major Centres: Tamworth, Armidale, Narrabri, Moree

Characteristics: Extensive network of light agricultural branch-lines with seasonal traffic. Switch to cotton generating new core traffic.

Core Traffic: Graincorp wheat; Gunnedah coal; Manildra Group + West Tamworth grain/flour; Wee Waa/Narrabri cotton; Tamworth petroleum; Dumaresq fertilizer; Tamworth/Narrabri inter-modal terminals.

Ports: Newcastle

Strategic issues: Core links on north-south inland rail route with opportunities for major inter-modal terminal at Narrabri or Moree. Grades and poor alignment up Liverpool Range a major constraint.

New Infrastructure: Liverpool Range base tunnel; inter-modal terminal at Armidale

Orana Regional Network

Base: Dubbo
Routes: Dubbo-Cobar-Elura (476km); Nevertire-Warren (20km); Narromine-Goobang (Parkes) (108km); Dubbo-Orange (138km); Dubbo-Merrygoen (96km); Dubbo-Conamble (154km); Kandos-Gulgong (91km); Gulgong-Binnaway (138km). **Total 1221km**
Major Centres: Dubbo, Mudgee, Wellington
Characteristics: Extensive network with long-haul mineral and grain traffic.
Core Traffic: Elura lead ore; Elura zinc concetrate; CSA Cobar/North Parkes (Goonumbla) copper ore; GrainCorp wheat; Warren/Trangie cotton; Dubbo petroleum; Dubbo containers.
Ports: Newcastle, Port Botany, Port Pirie
Strategic Issues: Core links on north-south inland rail route, with Dubbo developing as major regional transport hub; possible reopening Dubbo-Yoeval line (72km); recapture Bourke cotton/wool traffic. Mudgee as inter-modal centre.
New Infrastructure: Merrygoen Y-link; relocation and expansion of Dubbo freight terminals;

Central-Western Rail Network

Base: Parkes
Routes: Lithgow-Orange (167km); Orange-Parkes (123km); Parkes-Euabalong West (173km); Bogan Gate-Tottenham (114km); Parkes-Caragabal (92km); Blayney-Cowra (75km). **Total 744km**.
Major Centres: Bathurst, Orange, Parkes, Forbes

Characteristics: Agricultural branch lines from main east-west mainline with seasonal traffic. Serves several regional cities with industrial base.
Core Traffic: GrainCorp wheat; Cadia copper ore; Blayney containers; Parkes FCL containers, petroleum products; Manildra grain/flour; Bathurst industrial; Cowra limestone.
Ports: Port Kembla, Port Botany
Strategic Issues: Development of Parkes as major east-west, north-south freight centre – *Inland Port* – linked to inland north-south rail route. Proposed development of inter-modal terminal at Bathurst.

Metropolitan-Illawarra Network

Base: Enfield

Routes: Enfield-Wyong (106km); Enfield-Port Botany (11km); Enfield-Kandos (178km); Clyde-Sandown (4km); Blacktown-Richmond (26km); Granville-Picton (63km); Illawarra Junc-Nowra (151km). **Total 539km**

Major Centres: Sydney terminals, Lithgow, Gosford, Wollongong, Port Kembla, Nowra.

Characteristics: High volume coal traffic to Port Kembla, plus metropolitan transfer traffic to and from Port Botany and major Sydney freight terminals.

Core Traffic: Western and Glenlee coal; metropolitan trip traffic; Manildra Group grain/flour to Nowra; petroleum products; Kandos cement; Bombo/Dunmore ballast.

Ports: Port Botany, Port Kembla

Strategic Issues: Horizontal separation of high-density local freight from inter-state freight and CityRail trains. Provide efficient transfer between port and freight terminals of other operators in Sydney region.

New Infrastructure: Completion of Maldon-Dombarton line for coal traffic to Port Kembla.

Southern Railway Network

Base: Goulburn

Routes: Goulburn-Picton (140km); Moss Vale-Port Kembla (74km); Goulburn-Canberra (100km); Goulburn-Cootamundra (205km); Demondville-Cowra (100km); Koorawatha-Greenthorpe (22 km). **Total 721km**.

Major Centres: Moss Vale, Goulburn, Canberra, Cowra

Characteristics: Low-volume regional freight traffic overlaying mainline inter-state traffic on Main Southern line. Traffic to Canberra constrained by poor alignment/grades of Goulburn-Canberra branch line.

Core Traffic: GrainCorp wheat; Southern Blue Circle limestone/cement traffic; Canberra oil traffic;

Ports: Port Kembla; Port Botany

Strategic Issues: Need for modern logistical transport links to Canberra with effective rail link. Moss Vale-Port Kembla line provides strategic port access. Cowra area grain traffic to Port Kembla; possible reopening of Cowra-Eugowra line (80km)?

New Infrastructure; Inter-modal freight terminal for Canberra; construction of direct link between Canberra and Main Southern Line.

Riverina Region Rail Network

Base: Junee
Routes: Junee-Cootamundra (56km); Junee-Albury (160km); Cootamundra-Temora-Cargelligo (241km); Stockinbingal-Caragabal (82km); Temora-Griffith (151km); Griffith-Hillston (107km); Barmedman-Rankin Springs (115km); West Wyalong-Burcher (54km); Ungarie-Naradhan (60km); Junee-Darlington Point (160km); Yanco-Griffith (54km); The Rock-Boree Creek (57km). **Total 1497km**.
Characteristics: Extensive branch line network of low volume agricultural lines, with major regional cities, which offer potential industrial base.
Major Centres: Wagga Wagga, Albury, Narrandera, Griffith.
Core Traffic: GrainCorp wheat; Ricegrowers rice; Albury paper products and industrial; log traffic; MIA wine.
Ports: Port Kembla, Melbourne, Port Botany
Strategic Issues: Currently served by FreightCorp and Junee-based operator Austrac. Provides core links on north-south inland rail route. MIA a significant growth area.