CHAPTER 02

Strategic context and need

ALBURY TO ILLABO ENVIRONMENTAL IMPACT STATEMENT

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2. Strategic context and need

This chapter describes the strategic planning context and the opportunities and challenges that have influenced the need for, and development of, the Inland Rail program and the Albury to Illabo (A2I) section of the Inland Rail program (the proposal).

2.1 The existing situation

There is no direct continuous inland rail link between Melbourne and Brisbane, with interstate rail freight travelling between Melbourne and Sydney via Albury, and then between Sydney and Brisbane, generally along the coast. About 70 per cent of the freight between Melbourne and Brisbane is carried by road, principally the Newell Highway in NSW, and connecting highways in Victoria and Queensland (Transport for NSW (TfNSW), 2015).

The proposal to extend the Australian rail network to provide an inland railway between Melbourne and Brisbane has been around for at least 100 years (ARTC, 2015b). In the last decade, the concept of an inland railway between Melbourne and Brisbane has been subject to significant analysis for the following reasons (ARTC, 2010):

- **capacity:** existing freight infrastructure between Melbourne and Brisbane has insufficient capacity to meet future freight demand
- **productivity:** existing north–south freight infrastructure (road and rail) is constrained by both geography (old rail lines with numerous curves and inability to take double-stacked freight trains) and the priority given to passenger rail services
- **social and environment:** the continued reliance on road for freight transport will result in increasing safety, environmental and community impacts with associated costs to the economy
- **regional and growth:** existing north–south freight infrastructure is impacting access to efficient supply chain networks for regional producers and industries, inhibiting productivity and economic growth
- **resilience:** lack of resilience on existing north-south freight infrastructure exposes supply chains to disruptions and greater unreliability.

Two major studies have been undertaken in relation to the development of an inland rail route between Melbourne and Brisbane. The first study, the *North–South Rail Corridor Study* (Department of Transport and Regional Services, 2006) considered potential corridors for the rail line. As an outcome of the study the 'far-western sub-corridor', via Parkes, Moree, and Toowoomba, was identified as the preferred corridor for a Melbourne–Brisbane inland railway.

In 2008, the Australian Government announced a study to determine the optimum alignment, as well as the economic benefits and likely commercial success, of a new standard-gauge inland railway between Melbourne and Brisbane. This study, the *Melbourne–Brisbane Inland Rail Alignment Study* (ARTC, 2010) developed the current Inland Rail alignment. The conclusions of the *Melbourne–Brisbane Inland Rail Alignment Study* (ARTC, 2010) include:

- there is demand for an inland railway
- the route for an inland railway would be more than 100 kilometres (km) shorter than the existing coastal route
- the preferred alignment could achieve an average Melbourne to Brisbane transit time (terminal to terminal) of less than 24 hours, compared to a transit time on the existing coastal route of about 27 hours and 30 minutes
- the inland railway would free up rail and road capacity through Sydney
- the inland railway would achieve a positive economic net present value between 2030 and 2035, and if demand volumes grow more strongly than forecast, viability could be reached sooner.

In November 2013, the Minister for Infrastructure and Regional Development announced that the Australian Government had committed $300 million to enable the development of Inland Rail to commence. This process began with pre-construction activities such as detailed corridor planning, environmental assessments, and community consultation. This funding was subsequently confirmed in the 2014–15 Federal Budget paper titled *Building Australia's Infrastructure* (Australian Government, 2014). The Minister also announced that a high-level Implementation Group would be formed to drive the Inland Rail program. The alignment identified by the Melbourne–Brisbane Inland Rail Alignment Study was endorsed by the Implementation Group as the base case for further work (ARTC, 2015b).

Year	Milestones
2006	North–south alignment study (AusLink) identified a broad corridor.
2010	Alignment study completed by ARTC at the Australian Government's request—preferred alignment identified
2013	Funding commitment of $300 million made by the Australian Government.
2015	Inland Rail Implementation Group established. Chaired by the Hon. John Anderson AO, with membership by Qld, Vic, NSW, ARTC and the Department of Infrastructure, Regional Development and Cities. The Inland Rail Implementation Group recommended the 2010 alignment with some refinement and further work.
2016	Infrastructure Australia identified Inland Rail as a priority project, endorsing its potential to generate net economic benefits for the nation. The Australian Government further committed an additional $593.7 million in equity to ARTC.
2017	Australian Government budget committed to the full delivery of Inland Rail.

Source: Adapted from Department of Infrastructure, Regional Development and Cities

FIGURE 2-1 INLAND RAIL BACKGROUND

In 2015, the Implementation Group appointed ARTC to develop a business case and a 10-year delivery plan for Inland Rail. Planning and design work for the following projects in NSW is underway:

- Albury to Illabo (this proposal)
- Illabo to Stockinbingal (EIS being prepared)
- Stockinbingal to Parkes (planning underway)
- Parkes to Narromine (operational)
- Narromine to Narrabri (preparation of response to submissions)
- Narrabri to North Star (proceeding in two parts—part 1 under construction and planning is underway for part 2)
- North Star to NSW/Queensland border (preparation of response to submissions is underway).

Further information on the alternatives and options considered for the proposal is in Chapter 6: Alternatives and proposal options.

Between 2017 and 2021, the Australian Government committed additional funding towards the delivery of Inland Rail, including:

- $593 million for land acquisition, due diligence and continued pre-construction activities
- $8.4 billion for equity and grant funding
- $44 million for the development of the Interface Improvement Program to enhance connectivity and productivity from Inland Rail
- $20 million for investigations into new intermodal terminals in Melbourne and Brisbane
- $5.5 billion for ongoing Inland Rail delivery
- $10 million for investigations into potential Inland Rail extensions from Toowoomba to Gladstone (Australian Government, 2021).

2.2 The opportunity and challenges

This section is a summary of the opportunities and challenges relevant to the development of, and need for, Inland Rail, including the proposal. A detailed analysis of the issues and program drivers is in the *Inland Rail Programme Business Case* (ARTC, 2015a) and in the *Inland Rail Implementation Group Report* (ARTC, 2015b).

2.2.1 Growth in freight demand

In 2011, the domestic rail freight task accounted for approximately 46 per cent of total domestic freight (Infrastructure Australia, 2019). This represents an increase of 91 per cent since 2000–01 (Infrastructure Australia, 2015).

The *Australian Infrastructure Audit* (Infrastructure Australia, 2019) noted that:

- between 2006 and 2016, the national land freight task (that is, the amount of freight transport) grew by 50 per cent
- the national land freight task is expected to grow by 26 per cent between 2016 and 2026
- demand for freight rail infrastructure is projected to grow, in particular for resource bulk commodity haulage in WA, Queensland, and NSW
- freight rail would need to play a growing role in the movement of goods between ports and inland freight terminals, and in the movement of containerised and general freight over longer distances.

Demand for freight transport between Melbourne to Brisbane via inland NSW is expected to grow substantially over coming decades, from approximately 4.9 million tonnes in 2016 to around 13 million tonnes, or 1.1 million containers by 2050 (Infrastructure Australia, 2018).

Australia's east coast comprises 79 per cent of the country's population, 78 per cent of Australia's national employment and generates 75 per cent of the nation's GDP. With the population estimated to grow by 60 per cent over the next 40 years, increasing pressure would be placed on freight infrastructure and services (ARTC, 2015a).

Without the increased use of rail, the growth in freight demand is likely to result in increasing pressure on the road network and associated issues, increased freight costs, and a loss of economic opportunity.

2.2.2 Existing freight capacity and infrastructure issues

The current rail connection between Melbourne and Brisbane, via Sydney, cannot offer the transit times and reliability required by industry. This is largely a function of poor rail alignments and capacity constraints, particularly on the section between Sydney and Brisbane, and delays on freight transiting the Sydney metropolitan area (Infrastructure Australia, 2018). Travel time reliability is poor, as a result of the priority given to passenger services, freight transit curfews in the Sydney metropolitan area, and substandard rail alignments elsewhere. Limited capacity during morning and afternoon passenger peaks restricts freight movements at these times (NSW Government, 2013).

The current road connection between Melbourne and Brisbane via inland NSW offers faster transit times than rail via Sydney (Infrastructure Australia, 2018). However, much of the road is a two-lane, single carriageway, with limited passing lanes. Without additional capacity, transit times on this corridor would increase as freight volumes rise. Infrastructure Australia (2016) notes that the demand for urban transport infrastructure is projected to increase significantly. Without action, the cost to the wider community of congestion on urban roads could rise to more than $50 billion each year by 2031. Demand for many key urban road and rail corridors is projected to significantly exceed current capacity by 2031.

The *Inquiry into National Freight and Supply Chain Priorities* (Department of Infrastructure, Regional Development and Cities, 2018) identified a number of existing challenges facing road and rail freight, including:

- road transport would experience increased congestion from increasing numbers of passenger vehicles, and the priority given to passenger vehicles over freight vehicles in urban transport, resulting in associated higher costs over the next 20 years
- the encroachment of urban development on freight routes and precincts as cities grow in size and density leading to an increased potential for amenity, environmental and interface issues.

The *Melbourne–Brisbane Inland Rail Alignment Study* (ARTC, 2010) indicated that:

- the existing Sydney–Brisbane coastal route is anticipated to reach capacity by 2052
- rail efficiency and service quality are inadequate and passing on higher costs to consumers
- inadequate rail services are also encouraging a shift to road freight causing increased congestion, maintenance, safety and environmental issues for roads and highway
- priority is given to passenger modes over freight modes in urban transport.

2.2.3 Assessment of demands for Inland Rail

Continued growth in freight volumes is giving rise to a range of increasingly complex challenges for government, industry, and the community. Over the last four decades, the Australian freight task has quadrupled, with major increases evident in road and rail transport.

The *Inland Rail Programme Business Case* (ARTC, 2015a) provided a detailed description of the potential demand for Inland Rail. The demand projections have been used to:

- estimate the potential revenue of Inland Rail
- assess the economic benefits arising from mode shift from road and the coastal route to Inland Rail
- determine the appropriate capacity of Inland Rail
- determine appropriate freight service frequency and the impact of this on capacity utilisation, railway, and train operating costs.

The main categories of freight that are expected to comprise the market for Inland Rail are non-bulk manufactured products, including bulk steel, paper, coal, and grain. The demand analysis indicates that (ARTC, 2015a):

- Inland Rail is expected to increase rail's share of the Melbourne to Brisbane freight market from the current 26 per cent to 62 per cent by 2049–50. It is estimated that 7.9 million tonnes of intercapital freight would use rail between Melbourne and Brisbane by 2049–50
- Inland Rail would increase rail freight's share of the Adelaide to Brisbane market by 28 per cent and Brisbane to Perth's share by 7 per cent
- better connections to the Port of Brisbane would result in an estimated two million tonnes of freight shifting from road to rail by 2049–50.

2.3 Need for Inland Rail

As described in section 2.2, the freight task is expected to grow and further investment in transport infrastructure is required to meet this demand.

Rail is generally the most productive and efficient mode for freight travelling from regional areas to export ports and urban destinations. As noted by the Minister for Infrastructure and Regional Development (Department of Infrastructure and Regional Development, 2013), 'an efficient rail freight network is the key to effective supply chains, national productivity, and competitiveness'.

Inland Rail is needed to improve the efficiency of freight moving between Melbourne and Brisbane. Inland Rail would bypass the Sydney metropolitan area, it would substantially cut the overall journey time to less than 24 hours and increase the reliability of services between Melbourne and Brisbane (Infrastructure Australia, 2016). This is expected to increase the competitiveness of rail transport relative to road transport (ARTC, 2015a).

Infrastructure Australia evaluated Inland Rail in both 2015 and 2019 and identified it as having long-term benefits to potential users and the broader economy. As noted by the *Australian Infrastructure Audit* (Infrastructure Australia, 2015), 'Rail offers an alternative to road transport and societal benefits in terms of lower emissions, reduced road congestion and increased safety per tonne kilometre, particularly over longer distances or when carrying heavy goods'.

In summary, Inland Rail is needed to:

- respond to the growth in demand for freight transport
- address existing freight capacity and infrastructure issues
- meet the demand for transport of non-bulk manufactured products.

2.4 Need for the proposal

Inland Rail consists of 13 projects, involving:

- building sections of new or 'greenfield' route
- upgrading sections of existing secondary lines to meet Inland Rail's performance specification
- enhancing sections of existing main lines, mainly to improve vertical and horizontal clearances between infrastructure above the rail corridor and the tracks themselves, to enable trains with double-stacked containers to pass safely beneath.

The proposal contributes to improved freight transport outcomes and addressing the growing freight task by enhancing and modifying rail and other infrastructure to support the safe running of double-stacked freight trains. The proposal would connect to the Tottenham to Albury (T2A) to the south and Illabo to Stockinbingal (I2S) to the north. The proposal is required to enable the implementation of Inland Rail.

2.5 National, state, and regional planning policies and strategies

The strategic context of the proposal is influenced by the outcomes of several strategic plans for transport infrastructure and regional development that have been prepared at the national, state, and regional levels. Key national and state strategies, policies, and plans have also informed and influenced the vision, objectives, and development of Inland Rail and the proposal.

The proposal, as part of Inland Rail, is consistent with relevant elements of the following strategies:

- *2021 Australian Infrastructure Plan* (Infrastructure Australia, 2021)
- *State of Australian Cities 2014–2015* (Department of Infrastructure and Regional Development, 2015)
- *Urban Transport Strategy* (Infrastructure Australia, 2013)
- *National Land Freight Strategy* (Standing Council on Transport and Infrastructure, 2013)
- *National Freight and Supply Chain Strategy* (Transport and Infrastructure Council, 2019)
- *National Ports Strategy* (Infrastructure Australia and the National Transport Commission, 2011)
- *Building Momentum: State Infrastructure Strategy 2018–2038* (Infrastructure Australia, 2018)
- *Future Transport Strategy 2056* (TfNSW, 2018a)
- *NSW Freight and Ports Plan 2018–2023* (TfNSW, 2018b)
- *NSW Road Safety Strategy 2012–2021* (Transport for NSW, 2012) and the supporting *Road Safety Plan 2021* (TfNSW, 2018d)
- NSW State Priorities
- *Riverina Murray Regional Plan 2036* (Department of Planning and Environment, 2017)
- *Regional NSW Services and Infrastructure Plan* (TfNSW, 2018c)
- *Regional Freight Transport Plan* (Riverina and Murray Joint Organisation, 2020)
- *A 20-Year Economic Vision for Regional NSW* (NSW Government, 2021a)
- *Economic Development Strategy for Regional NSW* (Department of Trade and Investment, Regional Infrastructure and Services, 2015)
- *Murray–Murrumbidgee Regional Transport Plan* (Transport for NSW, 2013).

Further information on these strategies and their relationship to Inland Rail and the proposal is in Appendix B: Strategic planning review.

2.6 Key benefits

ARTC carried out a benefits realisation study for Inland Rail as part of the *Inland Rail Programme Business Case* (ARTC, 2015a). Benefits realisation is the process of identifying, defining, tracking and optimising outcomes to ensure potential benefits are realised.

In summary, Inland Rail would provide the following key potential benefits:

- **boost the Australian economy**—Inland Rail is expected to boost Australia’s GDP by $16 billion over the next 50 years
- **create jobs**—Inland Rail is expected to create up to 16,000 new jobs at the peak of construction, and an average of 700 additional jobs over the entire construction period for Inland Rail
- **improve connections within the national freight network**—Inland Rail would enhance the National Land Transport Network by creating a rail linkage between Parkes in New South Wales and Brisbane, providing a connection between Queensland and the southern and western states
- **provide better access to and from our regional markets**—Inland Rail would make it easier to connect farms, mines, cities and ports to domestic and international markets. Two million tonnes of agricultural freight would switch from road to rail, with a total of 8.9 million tonnes of agricultural freight more efficiently diverted to Inland Rail
- **reduce costs**— the CSIRO *Inland Rail Supply Chain Mapping Pilot Project* (Higgins, et al., 2019) estimated an average saving of $76 per tonne when shifting from other freight options (for horticulture and post-processed foods), as per CSIRO Supply Chain Mapping for the Parks to Narromine Pilot
- **offer better transit time and reliability**—Inland Rail would offer less than 24-hour transit time between Melbourne and Brisbane terminals and 98 per cent reliability matching current road levels

- **increase the capacity of the transport network**—Inland Rail would increase capacity for freight and passenger services by reducing congestion along the busy coastal rail route and allow for growth in passenger services. There would be additional train paths for freight (160 round train paths per week), a 105 per cent increase on current freight paths on the coastal route alone. It would particularly free up capacity on Sydney's rail network for more passenger and freight services and would remove 200,000 truck movements (5.4 billion net tonne kilometres of freight) from roads each year from 2049–50
- **reduce distances travelled**—with Inland Rail, the rail distance for freight between Melbourne and Brisbane would be reduced by 200 kilometres and the distance between Brisbane and Perth and Brisbane and Adelaide reduced by 500 kilometres
- **improve road safety**—up to 15 serious crashes would be avoided every year, involving fatalities and serious injuries
- **improve sustainability and amenity for the community**—carbon emissions would be reduced by 750,000 tonnes per year and truck volumes would be reduced in more than 20 of our regional towns (based on a 2050 estimate)
- **provide an alternative north–south freight link**—Inland Rail would provide an alternative north–south freight path to counter weather, climactic or other disaster disruption to the transport network
- **promote complementary supply chain investments**—Inland Rail would be a catalyst for complementary private sector investments, such as fleet upgrades, new metropolitan and regional terminals and integrated freight precincts.