Rail Freight’s Future: Embracing Change

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AUSTRALIA’S LARGEST RAIL FREIGHT NETWORK

Common Network Standards

Sydney-Craigieburn Corridor

Kalgoorlie-Cootamundra Corridor

Melbourne-Crystal Brook Corridor

Hunter Valley Corridor

Telarah-Acacia Ridge Corridor

Transported on our network - percentage by volume (GTKs)
DEVELOPMENT OF NATIONAL RAIL NETWORK

Early Construction

Present Day
LOOKING AHEAD?

Flying Train in Back to the Future III
OUTLOOK FOR RAIL IN AUSTRALIA

Positive Outlook for Rail in Australia

Continued growth in freight transport market

Modal shift towards rail due to increase in urban and non-urban congestion

Focus on environmentally friendly modes of transport

Customer preference for rail as rail-based supply chains develop and improve
MEETING THE FREIGHT CHALLENGE

BRISBANE TO MELBOURNE, ADELAIDE AND PERTH CORRIDORS

2015

ROAD 4.7mt

RAIL 2 mt

6.7mt

2030

ROAD 6.3 mt

RAIL 3.7 mt

10mt

2050

ROAD 9.7 mt

RAIL 7.0 mt

16.7mt
IMPROVING THE RAIL INDUSTRY’S COMPETITIVENESS

Policy / Reform

Infrastructure Investment

Reliability

Impacts on rail industry’s competitiveness

Availability

Price
RAIL INDUSTRY: CHALLENGES / OPPORTUNITIES

- Lowering the unit cost of rail
- Recognising the benefits of rail (public good)
- Improving the end-to-end service offer for customers
- Improving competition and lowering barriers to entry
THE FUTURE OF THE RAIL INDUSTRY

“The best way to predict the future is to invent it.”

Alan Kay
BUILDING THE FUTURE – KEY PROJECTS UNDERWAY

- **Advanced Train Management System**
- **Adelaide to Tarcoola Upgrade Acceleration**
- **Melbourne to Brisbane Inland Rail Project**
IMPROVING PRODUCTIVITY: STATE OF THE ART TRAIN CONTROL SYSTEM

- A Communications Based Train Control System
- Joint Venture with Lockheed Martin
- Live trials between Port Augusta and Whyalla – aims to improve reliability, increase user acceptance and minimise potential risks in preparation for future deployment

ARTC
• $252 million committed by the Australian Government
• Focused on: re-railing and track upgrades to allow 25 Tonne Axle Loads at 80km/hr between Tarcoola and Adelaide (Outer Harbor)
• Increase track capacity to maximise the productivity of the rail network
• Provide the infrastructure to allow further growth in bulk mineral traffic on rail
Rail and Sleepers
- Approximately 550 track kms of mainline to be upgraded to 60 kg/m rail

Turnouts
- Upgrade mainline timber turnouts in 47/53 kg/m rail with 60 kg/m concrete bearer turnouts – 14 in total

Level Crossings
- Upgrade of level crossings to 60 kg/m rail in advance of re-rail – 74 crossings identified
- Upgrade to steel deck surface – 17 in total

Manufacture
- A total of 72,000 Tonnes of rail will be procured from Whyalla for this project
- Steel is transported by train to the ARTC Flashbutt Welding Facility at Port Augusta
INLAND RAIL – LINKING BRISBANE TO ADELAIDE

WITH SUPPORT FROM GOVERNMENT

$9.3b commitment

IN PARTNERSHIP WITH PRIVATE SECTOR

HAND-IN-HAND WITH INDUSTRY & COMMUNITY

NETWORK ENGAGEMENT LOCAL SUPPORT JOBS INDUSTRY
INLAND RAIL - CORE SERVICE OFFERING

- **Reliability**: 98%
- **Price**:
- **Transit time**: < 24 hours
- **Freight available when the market wants**

> Inland Rail - Key technical characteristics that underpin the service offering

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<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Train Length</td>
<td>1800m with future proofing for ultimate 3600m train length</td>
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<tr>
<td>Axle Load / Max Speed</td>
<td>21 tonnes @ 115km/h, 25 tonnes @ 80km/h, with future proofing for 30 tonnes @ 80km/h</td>
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<tr>
<td>Double Stacking</td>
<td>7.1m clearances for double stack operation</td>
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<td>Interoperability</td>
<td>Full interoperability with the interstate mainline standard gauge network</td>
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<td>Dual-gauging in Queensland to provide for connectivity to the Queensland narrow gauge regional network</td>
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<td>Connections to the NSW Country Regional Network to provide for standard gauge connections to the ports of Melbourne, Port Kembla, Sydney, Newcastle, Brisbane, Adelaide and Perth.</td>
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Thankyou