

ENGINEERS  
AUSTRALIA

**RTSA**

National Secretary  
Mr John Dring CPEng, MICE

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ref. RTSA-NS-109  
20 August , 2006

Mr Paul Neville MP  
Chair,  
House of Representatives Standing Committee on Communications and Regional Services  
PO Box 6021  
Parliament House  
CANBERRA ACT 2600

Dear Mr. Neville

**Re: INQUIRY INTO INTEGRATION OF REGIONAL RAIL AND ROAD NETWORKS AND THEIR INTERFACE WITH PORTS.**

I refer to the hearing the RTSA appeared before on 1 August 2006, where certain follow up information was requested.

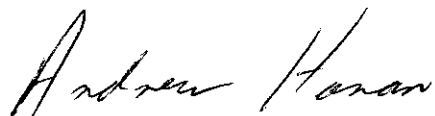
Please find enclosed matters relating to costs for regional rail resources as discussed, as well as a copy of the RTSA's submission to the NSW Legislative Council on the Pacific Highway upgrading (between Herons Creek and Moorlands)

The RTSA trusts the Committee finds this information useful.

The RTSA intends to explore some issues associated with regional human resource capability with a joint 1-day symposium with Charles Sturt University on 1 February 2007. We would like to invite the Chair to talk on the Committee's report at this symposium.

Final details of the program will be available in September 2006, but could I ask if you are available could you secretary contact me to finalise details.

Yours sincerely

A handwritten signature in cursive script that reads "Andrew Hanan".

*for* (Mr.) John Dring CPEng, MICE

National Secretary

## REGIONAL RAIL DEVELOPMENT OFFICERS

### 1. Background

In order to address the current institutional incapacity for railway development in rural areas, it is necessary to build appropriate human capital among the agencies which have transport planning and development responsibilities. Local government has these responsibilities alongside the state governments. Local government has a long-term interest and investment in transport infrastructure. However, the absence of rail expertise in local government is perhaps the most significant factor underlying local government's incapacity to develop sustainable transportation. It also underlies a traditional shortage of regional input into state railway operations which have been allowed to wither in many situations.

Further difficulty arises because Australian local government is unusually fragmented by international comparison, particularly in rural situations despite covering large land areas. Few local councils on their own are likely to have either the human resources or the territorial spread to undertake adequate investigations into rail projects, other than perhaps intermodal terminals which do not involve significant lengths of line across country.

### 2. Local Government Rail Presence and Facilitation

The human capital problem may be addressed by funding local government to employ people to work with industry and the community to assess and develop proposals for rail maintenance and development. We do not propose that local government should own or operate railway equipment or infrastructure. Rather, local government should assist local and regional businesses to acquire and develop railway operations and work with industry, including main-line operators, to generate railway business. This does not preclude the continuing involvement of state governments, who might choose to remain or return as operators and/or infrastructure providers. Local input into rail operations, wherever they might be based, is likely to ensure maximum exploitation of its efficiencies.

The fragmentation problem may be addressed by providing funding to regional organisations of councils or groups of councils which agree to participate. The employees may be employed by one council while working across a number. The RTSA understands that such arrangements are common. This proposal is consistent with the present Strategic Regional Program under AusLink. It provides a more specific focus based on recognition of the institutional and human capital problems.

The total cost of employing a railway development officer is likely to be \$150 000 per annum, consisting of a salary of \$80 000 (engineer or equivalent level) plus on-costs, car and office costs.

### **3. Duties, Competencies and Professional Pathways**

The duties of a Railway Development Officer could include:

- Assessing the viability of infrastructure and likely traffic including the potential for (re)development of track and facilities where opportunities are currently missed.
- Liaison with stakeholders including potential and actual rail operators and customers, and others with transport interests including state government agencies.
- Negotiation with potential rail operators, and providing brokerage between operators, track owners and lessees.
- Preparation or assistance with preparation of business plans and applications for grant funds.
- Liaison among stakeholders to ensure coordination for optimum and efficient use of rail and road infrastructure with a view to business considerations and environmental, social and health issues.
- Recommend to councils further means of developing sustainable transport.

The duties of a Railway Development Officer could include:

- Knowledge of regional rail issues and problems

- Basic knowledge of railway engineering and operating principles.
- Ability to develop business plans and write grant applications
- Familiarity with regional development issues and the problems facing rural industries
- Liaison skills
- Understanding of the wider context of sustainable transport

The RTSA is keen to ensure specific rail skills are developed, leading on a professional pathway to integrated regional transport. Rail specific skills need eventually to be complemented and developed into a wider understanding and development of regional transport. The RTSA commends an approach, perhaps facilitated by Auslink, which brings regional rail and road engineers (from greater regional areas) together at forums, to network, promote and develop regional based transport options.

Skills development and recognition are important in the technical engineering fields for both rail and road. The RTSA supports Engineers Australia's Chartered Professional Engineer (CPEng), Chartered Engineering Technologist (CEngT), and Chartered Engineering Officer (CEngO) accreditation. The RTSA commends the Inquiry to suggest that professional development and accreditation, as promoted by Engineers Australia are important elements in regional capability. The RTSA would like to work in close liaison (with Engineers Australia) between regional transport sector, government and the professional bodies to develop human capability and pathways.

#### **4. Future Frameworks for Regional Rail**

As indicated in our evidence on 1 August 2006, the RTSA in conjunction with Charles Sturt University will be holding a 1-day symposium in Wagga Wagga on 1 February 2007 title 'Future Frameworks for Regional Rail'.

This joint initiative will in part, explore governance models for the nurturing and development of regional human capital for sustainable transport. Although there are emerging governance models in the form of Area Consultative Committees, Regional Organisation of Councils and Catchment Management Authorities, fundamental building blocks such as basic rail skills need to be re-established at a very local level. The challenge is to eventually and effectively integrate local government road and rail capability, not merely into some statistical region sector or statical district but along subsidiarity lines that promotes and develops local, regional, inter-regional and inter-capital transport.

The Commonwealth Government's AusLink program, with it funding resources, is fundamental to bringing about balanced outcomes in this area. An approach that combines institutional building (including skills gaps) with financial incentives to motivate integrated regional development is to be commended.

The RTSA notes the worthy initiative of the NSW Minister of Roads with the recent announcement (11 August 2006):

*20 students in regional and rural NSW will be offered fully-funded scholarships by the Roads and Traffic Authority (RTA) of NSW for civil and environmental engineering studies at the University of Technology Sydney (UTS).*

*NSW roads minister Eric Roozendaal said more than \$1 million was being committed to the scholarships to encourage more young people to take up engineering.*

*The scholarships, worth \$50,000 each, will cover the full cost of bachelor of engineering and diploma in engineering practice at UTS.*

*"Scholarship holders will undertake their industry placements with the RTA and will be encouraged to do the work in a regional centre or rural area and in their home district if they so chose," said Roozendaal.*

*The dean of engineering at UTS, Professor Archie Johnston, said UTS has a longstanding industry partnership with both the NSW RTA and Railcorp NSW, which are the two biggest employers of engineering graduates in the state.*

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This initiative could be extended and integrated with the rail sector. The future development of regional transport will lie with young engineers and measures that can integrate aspects of rail and road at a young age should be encouraged. The RTSA would like to see the above engineers given the opportunity to rotate through RIC Country, ARTC as well as the RTA, as a broad-based learning of engineering, setting the foundations for sustainable regional transport.

## PENOLA – PORTLAND RAILWAY

The railway network in South East South Australia, west of Heywood (Vic) and south of Wolseley (SA) is moribund and has been since 1995 when the surrounding main lines were converted from broad gauge to standard gauge. The only section of railway relevant to this submission that is currently in operation is between Heywood and Portland in Victoria, this section amounting to 26 km in length. The line between Heywood and Penola, which crosses the border between Victoria and South Australia around 24 km east of Mt Gambier, is 147 km in length.

This moribund track was constructed to secondary main line standard, although the passage of time has seen most of the timber sleepers deteriorate beyond recovery. Steel sleepers which are in the majority in the 55 km between Mt Gambier and Penola are still in good condition and are already set up for conversion of track to standard gauge.

Most of the data in this submission has been sourced from documents provided by Gateway Rail Management (Aust) Pty Ltd, a company with rail credentials with a commitment and considerable interest in this area. They have based their concepts and proposals on establishing efficient train operations (for the task) over track that is fit for purpose with an organisation that is closely tied to the community and industries that the railway would serve – in other words a local version of the North American ‘Short Line’

Gateway’s track rehabilitation and train operating costs were based on standard industry practice for branch line operations, traffic and revenue forecasts (which were developed after extensive consultation).

A major factor in the railway remaining unused for the last ten years has been the existence of a state border between the productive area north and west of Mt Gambier and the port at Portland. As is often the case the two states involved seem to have lacked the synchronicity that would have enabled them to deal with the economic health of this region as a whole, instead of each following a path that was driven by individual state interests. The existing road haulage of export produce to Portland is a result of this indecisiveness, rather than as a result of any deliberate policy.



The big export volumes are a couple of years away - consisting of hardwood and softwood chips from maturing plantations. Current expectations are for around 1.6 million tonnes of woodchips per annum within about 4 years. An operating railway might also attract additional traffic, including inter-modal (particularly finished product from Mt Gambier mills to Victoria), grain, mineral sands and possibly bulk fuel.

Gateway has estimated that standardisation of the line between Heywood and Penola would cost \$41.1 million (2005 values) and would provide:-

- Reuse of most existing rail but welded and ground to meet low maintenance requirements
- Complete replacement of existing (and mostly life expired) timber sleepers with new steel sleepers
- Formation remediation over the whole length of the line to a width of 5.5 metres
- Ballast to a depth of 150 mm below sleeper level
- A driver initiated turnout at the Heywood Junction and crossing loops at Dartmoor and Mt Gambier.

This would provide a suitable railway for up to 21 tonne axle loads at 60 km/h.

For woodchips the Gateway train plan would involve each train set running two cycles per day. These trains would consist of 18 wagons carrying 36 high cube containers of woodchips each trip. The idea of using containers is to allow loading at any point (forest, mill or siding) and to allow the same unloading facility at Portland to deal with road or rail deliveries (i.e. the Portland infrastructure would not need to change for rail receivals). A single reconditioned 3000 hp locomotive would provide motive power for each train. Spare locomotives and wagons were included in the cost analysis.

Estimates are that total rail transport costs, inclusive of container haulage by road at each end and transshipment to/from rail at terminals would be 15% - 20% below road haulage costs for the full journey. The margin could be higher depending how trucking costs are calculated (Gateway's analysis used optimistic road cost inputs which tended to give lower road costs than are generally achieved in practice).

It is also of note that increasing fuel costs will advantage the rail option – it is estimated that for every 10 cents/litre fuel cost increase the rail cost advantage over road will improve by 45 cents/tonne. The same analysis shows that a rail option would have a margin over fully distributed rail costs in all cases while at the same time retaining a 'safe' margin below road rates, indicating that a rail option would be a sustainable viable industry that would provide significant cost savings to the woodchip producers. The whole project has sufficient margin (even without considering any other traffic drawn to rail) that it would involve very low risk, both to the customer and the provider of capital, while allowing a healthy and sustainable transport operation.

Over a 30 year project life the standardised and rehabilitated track would generate:-

Transport industry benefits:	\$60.8 million
Savings in transport costs	\$40.5 million
Other benefits from avoided costs	\$31.3 million
Net Present Value	\$77.9 million
Economic internal Rate of Return	17.9%
Benefit cost ratio	2.42