

Briefing Note – Reconnecting Passenger Rail to Mount Barker and The Adelaide Hills

This proposal, to Reconnect Passenger Rail to Mount Barker and The Adelaide Hills, is a practical and affordable way to link the rapidly expanding Mount Barker District to Adelaide while reducing peak traffic on the near-capacity South Eastern Freeway. It provides an attractive commuter option to private cars, or just more and more buses. New, Australian-made pollution free Hydrogen-powered Railcars could be used on an express service that would only stop at Blackwood and Goodwood before Adelaide Station after leaving The Hills. The existing ARTC Standard Gauge Line would be used to Mile End, with a short Dual Gauge connection into Adelaide Station. This access into Adelaide Station also raises the prospect of the restoration of Passenger Rail services into Country SA served by Standard Gauge Rail.

Utilising Existing Assets. The Interstate Standard Gauge controlled by the Australian Rail Track Corporation (ARTC) runs parallel to Adelaide Metro's Broad Gauge Belair Line from Adelaide Showground to Belair. While the Belair Line has 88 train movements weekdays from 6am to midnight, the ARTC line has a maximum of eight scheduled services in the same time period. This proposal is based on being able to accommodate passenger services, similar to the Belair Line frequency, on the Standard Gauge Line from Mount Barker Junction to Keswick and finally into Adelaide Station, with minor rescheduling (or accommodation) of one or two freight trains a day during the morning commuter peak. Furthermore, with Standard Gauge connected into Adelaide Station, SA Country Passenger Rail Services could be reconnected to Port Pirie, Port Augusta, Whyalla, Murray Bridge, Tailem Bend and beyond, not to mention Broken Hill.

Journey Time. It has often been stated that the journey time from Mount Barker to Adelaide cannot be reduced to less than eighty minutes without the expenditure of \$12billion dollars. My calculations, using historical 'Bluebird' Railcar and current Belair and Seaford timetables, along with ARTC schedules and with a small allowance for newer technology and trackwork, indicate a conservatively estimated journey time of 61 minutes. However, actually achievable timings, and the compilation of a timetable reflecting these, will only be determined by trialling current and advanced technology railcars over the ARTC Standard Gauge Line through the curves and gradients of the Hills. Suitable test railcars could be sourced from NSW.

Costs – Infrastructure Having worked through the infrastructure requirements to 'Reconnect Rail' (trackwork, signalling, stations, Park-and-Ride car parks, level crossings, etc.) in some detail, it is possible to calculate a meaningful cost estimate of the work. Using unit costs from Rawlinsons Construction Cost Guide and input from rail industry insiders, adding 20% to these base costs for contractors' establishment costs and overheads, 15% for Engineering and Architectural Consultants Fees, and 30% on top of everything for 'Contingencies', the Infrastructure Costs total \$163m. This figure is just 1.4% of the oft quoted \$12b.

Costs – Railcars Though it would be possible to convert their bogies to Standard Gauge, modify, refurbish and reuse the 3000 Class Diesel Multiple Unit (DMU's) that will be surplus with the electrification of the Gawler Line, these are still 1980's vintage rolling stock. The money may be better spent on new, emissions-free Hydrogen/battery powered railcar sets similar to those being commissioned in Europe and the US. These provide the better and quieter performance of Electric Multiple Units (EMU's) without the cost of overhead catenary power supply infrastructure. They could be similar to the new Adelaide Metro 4000 Class EMU's, would cost some 25% more, but with compensating power infrastructure savings. The estimated cost (in consultation with industry sources) is \$154m for 30 state-of-the-art railcars.

The necessary support and maintenance infrastructure could be considered not simply as a cost, but as an investment in the new Hydrogen fuel cell technology that is seeing applications developed for rail locomotives, trucks, cars and even submarines. (It is used in the German alternative to nuclear submarines, at a fraction of the cost).

Total Cost The combined Infrastructure and Railcar costs total \$317m. This is just 2.6% of \$12b mentioned before.

Overview The new Hydrogen fuel cell technology, the opportunity to manufacture these railcars in Australia, the reduction in traffic on the near-capacity SE Freeway through this alternative commuter option for the rapidly expanding Mount Barker District, and the utilisation of the existing ARTC Standard Gauge for The Hills Line and SA Country Passenger Rail, all mean that this project is ideally a State/Federal initiative. With State and Federal Elections due soon, I commend this project for serious consideration.

It's Time – to Reconnect!

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