rail revitalisation

**TIME LINE**

**March 2013 – Project Update**

**Belair Line**
- Construction of a new architecturally designed railway station at St Clair.
- January closure to upgrade Adelaide railway Station and Yard.
- Gawler, Mawson and Smithfield Interchanges.
- Electrification of this line will upgrade Gawler stations.
- Car park expansions were completed at Elizabeth and Munno Para, and Chidda, Evanston, Elizabeth South and constructing a ‘turn-back’ facility at Elizabeth station.
- New stations at Gawler, Meadows (with park ‘n’ ride facilities) and a bus interchange at the Seaford district centre.

**Gawler Line**
- The 5.7 km extension of the dual track rail line features a stunning 1.2 kilometre elevated rail bridge over the Onkaparinga Valley estuary.
- The Seaford line between Goodwood and the city, and the Tonsley line, comprising:
  - Construction of a new accessible Pacific Highway Station.
  - Completion of a new individually designed development
  - Re-opening of the Belair and interstate freight lines as part of the Goodwood junction.
  - Improving drainage.
  - Safety enhancements are also underway, with the new ballast new and refurbished rail, upgrading eight level crossings and improving drainage.

**Outer Harbor & Goolwa Lines**
- Rail electrification explained
- Stay switched on and respect the wires.
- Seaford (formerly Noarlunga) and Tonsley lines are currently closed for diesel services.
- Tonsley from Sep 2013
- Diesel services resume to Noarlunga and Tonsley from Sep 2013
- Reopened 4 Feb 2013
- Reopened for the upgrade of the Seaford line electrification.
- Closed up to July 2013
- Closed for the upgrading of track with gauge convertible concrete sleepers.
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**South Australia’s public transport system**
- For the first time in over 20 years, brand new trains have been ordered, which will be used in our newly electrified train fleet.
- Modernising the Department of Planning, Transport and Infrastructure.
- The department is working diligently to deliver Adelaide a more modern, faster, more frequent and efficient service for commuters.
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- For train and bus timetable enquiries.

**For further information visit**


**rail electrification explained**

- **1. Switchgear wiring**
  - Key to directing energy to trains.
- **2. Overhead wiring**
  - Trains contact the overhead wiring to obtain energy.
- **3. Pantograph**
  - The top of electric trains. It contacts the overhead wires and respect the system.
- **4. Cantilever arms**
  - To support the overhead wiring. Cantilever arms can be 30 metres long, 40 metres tall and 50 metres apart.
- **5. Masts**
  - Also live.
  - Return conductor also live.
- **6. Other live wires**
  - Connection to the other overhead wiring. Wires that are connected to the overhead wiring are also live.

**final image**

Call: 1300 311 108
Email: dpti.rr@sa.gov.au
Visit: www.adelaidemetro.com.au

**Thank you for your patience whilst we undertake these upgrades.**
rail revitalisation

MARCH 2013 – PROJECT UPDATE

The Department of Planning, Transport and Infrastructure is undertaking a major overhaul to transform Adelaide’s public transport network into a state-of-the-art modern, sustainable system providing faster, more frequent and efficient services for commuters.

For the first branch over 20 years, train times have been uncoupled, which will be used to replace our existing signalling system in its entirety. From September 2013, new signalling systems will be introduced for the network.

The network has been modernised to a point that requires the following stations to be in place to be the platform for a new network: The new signalling system for the network will be fully operational by mid-2014.

Adelaide's signalling and communications system is undergoing a major upgrade to deliver a state-of-the-art, modern, reliable and efficient train service, providing the platform for future network enhancements.

The South Australian public transport system is undergoing a major overhaul to transform Adelaide’s public transport network into a state-of-the-art modern, sustainable system providing faster, more frequent and efficient services for commuters.

rail electrification explained

- 1. Insulators
- 2. Turnout wiring
- 3. Track-mounted energy cables
- 4. Henderson
- 5. Cantilever
- 6. Other live wires

To separate ‘live’ energy from the ‘dead’ energy, the overhead wires must be considered ‘live’ (carrying electric current) and respect the safety requirements. Rail electrification equipment from Siemens is being supplied for the electrification of the Seaford line, along with the purchase of new electric trains, signalling system upgrades and new computer controlled equipment from Siemens in Adelaide.

Reduction in the amount of time people spend on public transport will mean the impacts will affect all of Adelaide’s metropolitan residents.

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rail revitalisation
MARCH 2013 – PROJECT UPDATE

electrification explained
A big component of the rail revitalisation is electrification of Adelaide’s rail network passenger rail services.

Rail electrification tunnel wiring provides electric power to the trains. It consists of overhead wires, pantographs, cantilever masts, and other live wires and associated works.

1. Tunnel wiring
2. Overhead wiring
3. Pantograph
4. Cantilever masts
5. Other live wires

South Australia’s public transport system is undergoing a major overhaul to transform Adelaide’s public transport network into a state-of-the-art modern, sustainable system providing faster, more frequent and efficient services for commuters.

For the first time in over 20 years, brand new trains have been ordered, which will be used on our newly electrified Belair and Seaford lines. Over 50 of this new technology will be built in our local Crossrail factory over the next two years, with over 5000 seats on each.

- installation of the overhead wiring system and associated works
- installation of the Belair ballast system
- installation of ballast on the Belair line
- installation of the Belair ballast system
- installation of the Belair ballast system

For further information visit www.infrastructure.sa.gov.au/RR

rail revitalisation
MARCH 2013 – PROJECT UPDATE

rail revitalisation in 2013
The rail plan of rail revitalisation contains a number of projects, to be delivered and last almost a century in duration, which mean the impacts will affect all of Adelaide’s metropolitan network. The following projects are planned to limit the duration and inconvenience caused to customers. The location of and scale of these works mean the impacts will affect all of Adelaide’s metropolitan network.

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rail revitalisation works completed so far

- major works include lighting, drainage, fence improvements, landscaping and pedestrian facilities
- new rail lines and tracks on the Belair, Morphett, Mitcham and Marion Lines
- new Elizabeth and East Torrens Stations

rail revitalisation works to come

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Adelaide’s first electric trains arrive for testing in 2013

The A-City Class 4000s will be the first electric trains to operate on the Adelaide network, replacing diesel-electric trains. They will be used to test the new electrification system and new trains, the first electric trains to be used on the Adelaide network. They will be based at Lonsdale Locomotive Depot and used on the new electric lines, which are part of the Glengowrie to Seaford electrification project. They will also operate on the St Clair to Seaford line. The Class 4000 trains will be the first electric trains to be used on the Adelaide network. They will be based at Lonsdale Locomotive Depot and used on the new electric lines, which are part of the Glengowrie to Seaford electrification project. They will also operate on the St Clair to Seaford line. The Class 4000 trains will be the first electric trains to be used on the Adelaide network. They will be based at Lonsdale Locomotive Depot and used on the new electric lines, which are part of the Glengowrie to Seaford electrification project. They will also operate on the St Clair to Seaford line. The Class 4000 trains will be the first electric trains to be used on the Adelaide network. They will be based at Lonsdale Locomotive Depot and used on the new electric lines, which are part of the Glengowrie to Seaford electrification project. They will also operate on the St Clair to Seaford line. The Class 4000 trains will be the first electric trains to be used on the Adelaide network.
rail revitalisation

rail electrification explained

1. Insulators - connect the wires to the overhead contact system, insulate the live wires from the structure, and do not carry current.
2. Overhead wiring - live wires suspended above the tracks and connected to the power supply.
3. Pantograph - the pantograph, on the front of the electric train, collects power from the wire to power the electric train.
4. Cantilever masts - 40 metres in length, 50 metres apart, and 8 metres tall.
5. Masts - 50 metres apart and 8 metres tall.

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For the first time in over 20 years, brand new trains have been ordered, which will be used on our newly electrified Seaford Warringa railway. Over 500 tickets have been issued in our new ticketing system over the past year, with over 2000 million journeys being undertaken in 2012-13. Electric train services now also include services to the north on the Gawler line, with services now also available to Belair.

Rail electrification in 2013

Installation of the 44-425 roll-on/roll-off power system along the Seaford line from Seaford to Adelaide railway station and yard.

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rail revitalisation

rail revitalisation MARCH 2013 – PROJECT UPDATE

diesel services resume to Noarlunga and Tonsley from Sep 2013

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