



# Gawler Rail Electrification Project

## PROJECT BACKGROUND

*The Australian and South Australian governments are jointly funding the \$715 million electrification and modernisation of the Gawler rail line to deliver a faster, cleaner and more reliable service, delivering an electrified network through Adelaide from Gawler to Seaford.*

### What works are required as part of the project?

Installing the electrical infrastructure and improving safety are the key first steps in modernising the Gawler rail line. These works include:

- installation of the 25kV overhead wiring system including masts and gantries;
- construction of a Combined Services Trench for the installation of new fibre optic communications cabling;
- installation of a new signalling system;
- service relocations;
- fencing of the rail corridor for improved safety; and
- some vegetation/tree trimming and removals, with every effort made to minimise impacts.

The majority of works are occurring within the existing rail corridor, however there may be some works that will require access to adjacent land to allow for construction and local traffic management. If access is required, a member of the project team will communicate with the property owner.

### When is the project going to be completed?

Gawler Rail Electrification Project is a highly complex project with multiple safety critical interfaces. Detailed planning, together with skilled resources are required to ensure the project is delivered safely, and in accordance with our obligations under the *Rail Safety Act 2012*.

Uncertainty in the project's resourcing, through COVID travel restrictions and the increased competition from other states for the specialist workers that are in very limited supply, has resulted in delays for reintroduction to rail services.

There are a range of specialist skills and competencies required to perform work that is essential to project completion. These skills are not available in South Australia. COVID restrictions in August 2021, effectively stopped the cross border travel for these workers.

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Nationally, there is a very high demand for these specialists and this has resulted in long lead times to resecure these essential resources.

Notwithstanding, every effort is being made to complete the project as safely and efficiently, with project completion and the return of passenger services as soon as possible.

The Department appreciates your co-operation and patience while these important works are undertaken.

### **What works have been undertaken to date?**

The majority of the main civil works are nearing completion, with 58km of new common services trench (CST) constructed, more than 350km of conduit and 456km of signalling cable, as well as the majority of the concrete foundations and masts which support the overhead wiring network completed.

Over the coming months, the team will be focusing on completing the installation of overhead wiring, to provide power to the new electric trains, as well as installation and commissioning of the new signalling system.

## **PASSENGER SERVICES**

### **Why are changes to passenger services required as part of the construction?**

While every effort has been made to minimise disruption to stakeholders, construction works require a full closure of the Gawler rail line, to enable works to be safely undertaken.

Substitute buses are in place to accommodate commuters during the line closure. For further information regarding the detours, changes to bus stops and timetables please visit [www.adelaidemetro.com.au/](http://www.adelaidemetro.com.au/)

### **Will there be new trains on the Gawler line?**

New electric trains are being procured which will enable an increase in capacity, as well as reliability and safety improvements. The new trains will be introduced in stages following completion of all the project works.

### **Will there be a new timetable following the recommencement of passenger services?**

At this stage, there have been no changes to the Gawler rail line timetable, which is scheduled to be reviewed in mid-2022.

For information about timetables and passenger services, please visit Adelaide Metro [www.adelaidemetro.com.au](http://www.adelaidemetro.com.au)

### **Will there be any major station upgrades?**

Stations along the Gawler rail line will not be upgraded as part of the Gawler Rail Electrification Project.

However, in June 2021, the State Government announced railway stations across Adelaide will receive makeovers as part of a commitment from the 2021-22 State Budget. The initiative provides \$99 million over





10 years to refresh railway stations in the metropolitan rail network, including 14 stations along the Gawler rail line.

For more information, please visit [www.dit.sa.gov.au/station\\_refresh\\_program](http://www.dit.sa.gov.au/station_refresh_program)

## **TESTING AND COMMISSIONING**

### **What is testing and commissioning?**

Testing and commissioning is a process undertaken on the new electrification infrastructure, to ensure the line is operating safely before passenger services recommence.

As part of the testing process, the overhead wiring and signalling equipment are tested in the factory and then again on site, to ensure the individual components of the new infrastructure have been installed and are operating correctly.

Testing is followed by the commissioning phase, where the previously tested equipment is turned on and operated as part of the installed system. This includes turning on the technology which detects trains approaching level crossings and stations and generally manages safe train movements and electrical power supply. Test trains are used to ensure the system is operating safely. This is the final phase of work completed before passenger services can recommence.

### **What testing and commissioning is required after the infrastructure is built?**

An extensive program of testing and commissioning of the new electrification infrastructure is the next phase of the project. This process is required to ensure the system is correctly configured and the integrity and correct operation of the safety critical systems is assured.

This is a detailed process of testing all the different components individually and as a complete system. The different stages include:

- connecting the new substations to the rail network to provide power for the electric trains;
- testing and switching over control of the new signalling system, that will control the network; and
- testing the power feeds to the electrification infrastructure.


The testing and commissioning works will occur with small crews accessing equipment within the rail corridor. You may also notice test trains running along the line during this time. Test trains are not passenger services but are operated for the purposes of testing the operation of the line.

### **When will the line become electrified?**

The Gawler rail line will be energised ahead of the return of passenger services. This means all electrification infrastructure, including overhead wires and their fittings should be considered live and carrying electrical current before the line opens to passenger services.

Overhead wires and attachments within the rail corridor will be dangerous if interfered with, as they carry 25,000 volts of electricity to power the new electrified line. Please 'Stay Switched On' and treat all wires within the rail corridor with the same respect and safety consciousness you do with suburban stobie poles and power lines.

Your safety is paramount and we appreciate your co-operation in helping us to keep everyone safe around our rail lines.



**A testing and commissioning fact sheet is available for more information about these works (link to approved fact sheets).**

## **CONSTRUCTION**

### **How is construction for the project being managed?**

Construction works are being managed carefully and sensitively to minimise the potential impact to surrounding neighbours and businesses. Representatives from the Project Team continue to provide updates to neighbours and the broader community as work on the Gawler Rail Electrification Project progresses.

### **Will there be any disruption to road intersections along the corridor?**

In order to construct the works and commission the new signalling and overhead wiring infrastructure some traffic restrictions will continue to be required. To safely undertake these works, speed and lane restrictions will be in place during the works.

Nearby properties and road users will be advised of upcoming level crossing closures and where required motorists are advised to plan ahead, allow extra travel time and observe signage.

### **Are night works required during construction?**

Some night works have been required as construction has progressed. Advance notice will continue to be provided to residents, businesses and key stakeholders to advise advance notice of when these works will occur. Every effort will be made to minimise disruption to residents and businesses.

Follow [www.facebook.com/DFITSA/](https://www.facebook.com/DFITSA/) for project updates, or register your details to receive project updates directly by visiting [www.dit.sa.gov.au/grep](http://www.dit.sa.gov.au/grep) and selecting *Registration, Feedback and Suggestions*.

### **Will vegetation and trees need to be removed as part of the electrification works?**

The majority of the vegetation management required for the project is now complete, however should any further works need to occur, the project team will provide notice of this to local residents in advance.

Management of vegetation is an integral part of the safe operation of an electrified rail network. Vegetation management is required to ensure:

- vegetation does not encroach into the three (3) metre electrical clearance zone, to prevent contact with the electrical overhead wiring;
- safe construction and operation of a Common Services Trench to house the new signalling and communications systems; and
- the electrified area is fenced off to prevent intrusion.

The project team continues to work closely with the relevant authorities, local councils and interested parties to minimise and manage impacts to vegetation, trees and wildlife habitats.

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## Who can I contact for more information?

If you have any questions or would like to speak to a member of the project team, please call 1300 080 834 or email: [dit.gawlerelectrification@sa.gov.au](mailto:dit.gawlerelectrification@sa.gov.au)

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