

# Auckland Electrification Project

## FACT SHEET

KiwiRail is overseeing the delivery of a high capacity, electrified railway, complemented with a state-of-the-art signalling and train control system.

Project DART spearheaded a step change in the infrastructure of Auckland's rail network, culminating with the electrification of all passenger lines with a 25kVac traction system.

In preparation for the installation of traction, bridges are being replaced and tracks lowered at 24 sites around the network.

These are complete in many locations and further work is planned – much of the work takes place during closures of the network at night and during holiday periods.

The existing signalling equipment is incompatible with an alternating current traction system, because it is not designed to be immune to unwanted interference or wrong-side failure caused by stray earth

or induced currents originating from the traction power. This, combined with much of the equipment being life expired and a need for large-scale capacity improvements, led to the decision to re-signal the entire Auckland network.

Invensys Rail is providing a new signalling system that will provide traction immunity, headways of up to 24 trains per hour and safety improvements with the introduction of modern equipment and Automatic Train Protection (ATP).

### FACTS

- 80 kilometres of electrified rail
- 3,500 masts & portals
- 6 substations
- 154 new signals huts
- 382 new signals
- 235 new point machines

