# Regional Rail Project

# Bi-mode technology fact sheet

transport.nsw.gov.au

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With transport accounting for almost 45% of the state's energy consumption, Transport for NSW plays a key role in reducing emissions and contributing to the NSW Government's long-term target of net-zero emissions by 2050

We are introducing bi-mode technology to the new Regional Rail fleet

The first trains in Australia to use this technology.

Bi-mode is a diesel-electric hybrid which will allow the fleet to run on overhead power when operating on the electrified train network.

When operating outside of the electrified network, the train uses on-board diesel engines to generate its own power.

#### Benefits of bi-mode:

Operating the trains in bi-mode configuration will:



Reduce carbon emissions by around

540

tonnes annually



Reduce diesel pollution by around

3

tonnes annually



These reductions in emissions will save approximately **\$1 million** through associated health and environmental benefits. This is the equivalent of:



The emissions of around

**77** 

Australian households



Travelling Australia's perimeter

83 times

Operating the trains in bi-mode will also save over \$2 million on diesel fuel costs annually.

#### **Frequently Asked Questions**

## Where will bi-mode use overhead power?

The NSW electrified rail network extends to Broadmeadow in the north, Lithgow in the west, Kiama in the south and Macarthur in the south-west.

## Do the trains turn off the diesel engines when using the electrified network?

Yes, the trains can be fully powered by overhead electricity when operating on the electrified network, providing quieter journey to our customers.

#### Will overhead electricity be used in interstate cities?

The use of bi-mode technology on the new Regional Rail fleet has been designed to be compatible with the NSW electrified rail network. Trains arriving and departing Brisbane and Melbourne will use their own diesel power supply.

#### **Contact us**

Call 1800 684 490
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