

# Rolling Stock Delivery Update

We have a transport plan for NSW that's focused on making trips faster, easier and safer. We're investing \$55.6 billion in improvements in roads and public transport to ensure infrastructure keeps pace with our needs. Part of this investment will deliver new trains for regional, intercity and metropolitan customers. Our new trains will provide more comfortable, reliable, efficient and accessible journeys for our customers. To keep you informed, we will regularly provide an update on our new fleet projects. If you would like to subscribe to this newsletter please send an email to [projects@transport.nsw.gov.au](mailto:projects@transport.nsw.gov.au)

## Regional Rail Fleet

We are replacing the ageing NSW regional rail fleet of XPT, XPLOER and Endeavour trains, which includes trains that are up to 36 years old. Momentum Trains, which was awarded the contract to design, build, finance and maintain the new fleet, as well as a maintenance facility in Dubbo, have now mobilised. The design process for both the fleet and maintenance facility is underway and engagement with local and regional industry around opportunities to be involved has started.

The new trains will improve safety, accessibility, amenities and reliability for customers who travel from Sydney to many regional centres in NSW, as well as Canberra, Melbourne and Brisbane. The new train maintenance facility in Dubbo will stimulate the regional economy and help create sustainable job opportunities and skills.

## Bi-mode introduced for the first time in Australia

The new Regional Rail Fleet will be the first train fleet in Australia equipped with bi-mode technology, providing a more environmentally-friendly and efficient rail service.

Bi-mode is a diesel-electric hybrid technology which allows the fleet to use overhead power while travelling on the electrified section of the train network. When operating outside of the electrified network, the train uses on-board diesel electrical multiple units to generate its own electricity. Bi-mode technology will help to save fuel, reduce carbon emissions and provide a quieter journey for customers.

With transport accounting for almost 45 per cent of the state's energy consumption, delivering this new technology will contribute to the Government's long-term target of net-zero emissions by 2050.

### Benefits of bi-mode



Operating the trains in bi-mode configuration will:



reduce carbon emissions by **over 540 tonnes annually**



reduce diesel pollution by **around 3 tonnes annually.**

These reductions in emissions will result in a **saving of approximately \$1 million** through associated health and environmental benefits.

This is the equivalent of:

- the emissions of around 77 Australian households
- travelling 3 million vehicle kilometres or Australia's perimeter 83 times.

Operating the trains in bi-mode will create a **saving of over \$2 million** on diesel fuel costs annually. Bi-mode operation also means the engines will be switched off when under the electrified network, making the journey quieter for customers. Further noise reductions are expected when the trains are stationary.

For more information call 1800 684 490

Email [projects@transport.nsw.gov.au](mailto:projects@transport.nsw.gov.au) or visit [transport.nsw.gov.au/projects](http://transport.nsw.gov.au/projects)

For urgent enquiries or complaints regarding construction activities, please call 24 hours 1800 775 465

## Job opportunities at Dubbo Maintenance Facility

Construction at the Dubbo Maintenance Facility site is expected to start in 2020, with site investigation works and the design process already underway.

To prepare for construction of the facility, Momentum Trains held two project briefings in Dubbo in May 2019. The sessions informed local businesses about opportunities available to work on aspects of the maintenance facility.

A second briefing was held in August 2019 to bring education, training and employment service providers up to speed with the Project's requirements in these areas.

The Project's Jobs Skills and Industry Participation team coordinated two tender-writing workshops in Dubbo in June and September 2019, with various construction-related businesses attending. The workshops took attendees through elements of a tender response to assist with their preparations for opportunities on the project, as well as other future projects.

Various supply and service procurement work packages for the maintenance facility have been open for expressions of interest on the Industry Capability Network (ICN) online platform.

These packages provide the chance for local involvement in things like fit-out, electrical, signalling and landscaping. More packages relating to products for the trains are due to open in the coming months. To apply or be kept informed of future opportunities interested organisations are encouraged to register with the free ICN portal services via [gateway.icn.org.au](http://gateway.icn.org.au).

Transport for NSW will continue to work closely with Momentum Trains to ensure opportunities to be involved in the Project are provided to local regional business and the community, including Aboriginal businesses.

## Train design

The design development process to refine the train design has started. This process includes a series of engagement sessions led by Momentum Trains.

Sessions so far have included subject matter experts, customers and stakeholders to ensure that the design of the new trains is functional, accessible and practical for the people who use them.

Relevant staff from Transport for NSW and NSW TrainLink have also been and will continue to be involved in the detailed design of the new trains.

The detailed design process will continue throughout next year and is expected to wrap up in 2021.



*Artist's impression of the Regional Rail fleet train.*

*This is subject to change during detailed design activities.*

Visit the project website to watch a video about bi-mode



**The new regional rail fleet will  
use bi-mode technology**

For more information visit: [www.transport.nsw.gov.au/projects/current-projects/regional-rail](http://www.transport.nsw.gov.au/projects/current-projects/regional-rail)

## New Intercity Fleet

The New Intercity Fleet will replace trains currently carrying customers between Sydney and the Central Coast, Newcastle, the Blue Mountains and the South Coast. The new state-of-the-art trains will provide intercity customers with safe, comfortable and accessible trains featuring:

- wider, more spacious two-by-two seating with arm rests, tray tables and high seat backs
- charging ports for mobile devices
- dedicated spaces for luggage, prams and bicycles
- improved accessibility including wheelchair access and accessible toilets.



Artist's impression of the New Intercity Fleet.

## Maintenance facility

A new purpose-built train maintenance facility is being built at Kangy Angy on the NSW Central Coast.

The facility will service and maintain the new fleet of Intercity trains and includes offices, amenities, staff parking and ancillary buildings, as well as flood free access for local residents via a new bridge.

The detailed design and construction of the new facility is being delivered by John Holland on behalf of Transport for NSW. In a boost for local skills and employment, delivery of the project is being carried out by workers and sub-contractors, the vast majority of which come from the local Central Coast area.

Construction continues across the site, with the main building (pictured below) taking shape. The site's other buildings, bridges, roadworks and infrastructure are progressing to prepare for the facility's future operations.

## Stations and signalling modifications

Work to upgrade existing rail infrastructure at a number of stations in readiness for the New Intercity Fleet is progressing well. Platforms have been extended at Hurstville, Hamilton, Adamstown, Wyong, Gosford, Central and Lithgow. Platform extension work is also underway at Emu Plains. The installation of new train stopping markers on the Blue Mountains Line will start in early 2020.

The New Intercity Fleet will feature enhanced safety features including automatic selective door operation technology, which makes sure only the doors on the platform open. This feature requires the installation, testing and commissioning of technology called 'balises' onto tracks and minor modifications to existing rail infrastructure at various stations on the Central Coast and Newcastle, Blue Mountains and South Coast lines.

Balise installation and programming started on the Central Coast and Newcastle Line in November 2019.



*View of the Maintenance Facility building facing the rail corridor.*

## Train update

The first of 55 new trains will arrive in Australia in December 2019 and be hauled by locomotive to the Eveleigh Maintenance Facility. From there, the fleet will begin a rigorous testing and commissioning process before entering passenger service. A timeline for the new trains to enter service will be confirmed once they have progressed through the early stages of final testing and verification on our network, to ensure they are safe and compliant with all relevant standards and requirements.

## Springwood to Lithgow rail corridor modifications

Modifications are needed along the rail corridor from west of Springwood Station to Lithgow Station, including minor modifications to the Ten Tunnels Deviation (between Newnes Junction Station and Zig Zag Station), to enable the New Intercity Fleet trains to service customers all the way to Lithgow.

The section of the Blue Mountains Line between Springwood and Lithgow is the only part of the electrified train network that has not been upgraded to modern standards.

Continuum Alliance, an alliance between Transport for NSW, CPB Contractors and Lendlease, is delivering the detailed design and construction of the project.

Construction started in February 2019.

Scheduled rail shutdown periods have allowed major work to take place, including the installation of overhead wire structures, track realignment work, and tunnel lining and platform modifications.

The project team is now preparing for the next trackwork and shutdown period in late December 2019.

We have always intended to modify rail infrastructure on the Blue Mountains Line west of Springwood, so that the New Intercity Fleet trains can operate all the way to Lithgow.

Similar work was carried out in the 1970s to accommodate the introduction of the V Set trains.



*Trackwork between Tunnel 8 and 9, Ten Tunnels Deviation*

For more information visit: [www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet](http://www.transport.nsw.gov.au/projects/current-projects/new-intercity-fleet)



## Waratah Series 2 trains

In June 2019, the 24th Waratah Series 2 train started passenger service. All 24 of the initial fleet of Waratah Series 2 trains are now in passenger service. The introduction of the Waratah Series 2 fleet means that 100 per cent of the Sydney Trains fleet is now air-conditioned, ensuring a comfortable ride for customers. With the new fleet in operation, the S-Set fleet ends nearly half a century of revenue service.

An extra 17 Waratah Series 2 trains are on their way to provide more services and greater reliability for customers on the suburban network. This will bring the total of Waratah Series 2 trains to 41. The first of the additional 17 Waratah Series 2 trains will progressively come into service from late 2020.

For more information visit: [www.transport.nsw.gov.au/projects/current-projects/sydney-growth-trains](http://www.transport.nsw.gov.au/projects/current-projects/sydney-growth-trains)



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