

FACT SHEET

SYDNEY'S NEW TRAIN



Sydney rail commuters can expect enhanced features, greater security and improved safety in the next generation fleet of suburban passenger train carriages.

A total of 626 new air-conditioned suburban passenger train carriages, or, 78 eight-car double-deck sets will be progressively rolled out across the CityRail suburban network between 2010 and 2013, with 72 trains to be made available on the network each day.

Sydney's new train will leverage the proven Millennium Train design with enhanced features, as outlined below, for improved reliability and performance.

Enhanced features

- Advanced passenger information and communication system with automatic announcements and electronic screens highlighting the train's stopping pattern and approaching station
- Increased wheelchair spaces - 16 in total per eight-carriage train, allocated in carriages 2, 3, 6 and 7
- Portable wheelchair boarding ramps in first and eighth carriages providing more boarding options. Station staff will continue to be the first line of assistance for wheelchair passengers
- Additional handrails
- A wider set-back area in the train vestibule to promote faster boarding and alighting
- Red fabric on priority seating differentiates it from other seating

Greater security

- Two new internal security cameras onboard each carriage making a total of eight cameras per carriage that cover all areas of the train carriage, including the Emergency Help Points which have priority in the event the points are activated
- Additional passenger Emergency Help Points on the train with direct access to guards and supported by CCTV cameras
- External close circuit television cameras

Improved safety

- Upgraded crashworthiness standard
- Reversible seating enables passengers to face the direction of travel and incorporates a mechanism that inhibits the movement of the seat back in a collision
- A restyled crew cab will improve the driver's field of vision, with the inclusion of a larger driver's side window
- Improved fire safety system

Train Specification

Passenger capacity	2150 including 896 seated (eight-car set)
Train mass	395 tonnes
Train width	3030mm
Ceiling height	2100mm end saloons, 1920mm upper and lower saloons
Maximum speed	130kph
Acceleration rate	1m/sec ²
Deceleration rate	1m/sec ²
Traction system/motor	Two converters per motor car utilising spread spectrum modulation. Four AC motors per car
Body material	Stainless steel

An initiative of the NSW Government's Rolling Stock Public Private Partnership



RailCorp

Reliance Rail



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Public Private Partnership

Sydney's new train carriages will be delivered as part of the NSW Rolling Stock Public Private Partnership (PPP) between RailCorp and Reliance Rail. A team of the rail industry's foremost engineering and services organisations is supporting Reliance Rail in the delivery of the PPP Project. The Downer EDI Rail-Hitachi Joint Venture is responsible for the design and manufacture of the trains on behalf of Reliance Rail and combines the award-winning Australian rolling stock design expertise of Downer EDI Rail with Hitachi's global reputation for train reliability and safety.

Delivery

The PPP Project represents the largest single rolling stock order with the shortest delivery timeframe ordered by any Australian railway - 626 carriages in six years.

The project is international in scale and Reliance Rail has responded with a delivery strategy that combines local design expertise, with the best global suppliers in rail car manufacturing including, Hitachi, Japan, ChangChun Railways Vehicles Co Ltd (CRC), China and Knorr Bremse, Germany.

Asia's largest passenger rail vehicle manufacturer, CRC, will supply the partially-built train car bodies to an Australian design. CRC has significant expertise in stainless steel car body construction and is currently building 40 trains for the new Beijing Capital International Airport Link for the 2008 Summer Olympics.

The Downer EDI Rail-Hitachi Joint Venture will fit the partially-built train car bodies with air-conditioning, seats and electrical systems, and carry out testing

and commissioning at Downer EDI Rail's Cardiff facility in Newcastle, NSW. The trains' crew cabs will also be manufactured and assembled at Cardiff, which is currently undergoing a \$20 million upgrade to facilitate the project.

Around 290 jobs will be created in the Hunter for the train manufacture project from 2009-2013 and one new apprentice will be employed for every nine tradespeople. The PPP Project will deliver a \$200 million boost to the Hunter economy and further secure it as the train manufacturing centre of NSW.

The Downer EDI Rail-Hitachi Joint Venture's rigorous testing regime will include a four-car pre-production test vehicle to trial the train sub-systems for their compatibility with the CityRail Sydney suburban network before the first set is introduced. This innovative approach will ensure the identification and early resolution of any integration issues for incorporation into the production trains.

Maintenance

Downer EDI Rail will maintain the new fleet on behalf of Reliance Rail, utilising its in-depth knowledge of CityRail network operations. The new fleet will be maintained under a 30-year contract at the new \$220 million Auburn Maintenance Facility, which is being built as part of the PPP Project in Sydney's western suburbs. Around 250 people will be employed at the facility during the peak construction period and 100 during the maintenance operations.

The facility will promote the highest levels of availability and reliability for Sydney's new fleet through the incorporation of world's best practice in all elements of its design, construction and operation.



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