

Evolution of Bombardier Propulsion and Controls in India

1989-2001



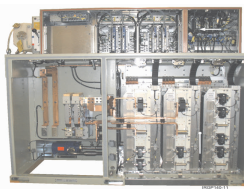
- Obtained Transfer of technology for High Power Propulsion (HPP) equipment's of WAP5 and WAG9 Electric Locomotives to Chittaranjan Locomotive Works (CLW) in 1993
- Set-up of Maneja propulsion and equipment site in 1997
- Formation of Bombardier Transportation India Limited in 2001

2007-2008



- Awarded Delhi Metro RS2 contract & delivered propulsion equipment for over 600 metro Cars
- Entry into Medium Power Propulsion (MPP)

2009



- Introduced next generation IGBT (Insulated-Gate Bi Polar transistor) based propulsion equipment for Electric Locomotives manufactured by Indian Railways at Chittaranjan Locomotive Works (CLW)

2011



- Awarded Mumbai Railway Vikas Corporation Phase II project for the Mumbai Suburban transport (project funded by World Bank)

2014



- Awarded Queensland Rail project. Vehicles, Bogies and Propulsion equipment to be delivered from India to Bombardier Transportation Australia

Bombardier Transportation Propulsion and Controls in India started its operations in 1997 with the establishment of Maneja site in Vadodara, Gujarat and has since become one of the leading companies in the Rail equipment business offering a wide variety of Propulsion and control equipment to the Indian Railways and to its rolling stock division.






Journey in India started with a mere two products and within a span of more than a decade and a half, it now supplies twelve products to the Indian railways, which are all, manufactured locally. In addition to this, support is also provided to Indian Railway customers with after sales services and Spare parts.

Winning the Delhi Metro contract paved its way into the Indian Metro Market and adding substantial expertise to the site. Mumbai Railway Vikas Corporation (MRVC) and Queensland Rail (Australia) projects are currently under execution at the site.

The site is also providing engineering support to our global projects such as Crossrail (United Kingdom), BR490 (Germany), SBB TwinDexx (Switzerland), (BART) USA and (Zefiro) China in areas related to Propulsion and Train Control software development and testing.

Starting with a modest headcount of 45, today over 300 people are supporting the "Make in India" campaign by exporting rail equipment across the world from India.

Product and Project Evolution of Bombardier Propulsion and Controls in India

1989-2001	2007-2008	2009	2011	2014
				
<ul style="list-style-type: none"> ▪ Tap Changer ▪ Vacuum Circuit Breakers (VCB) 	<p>GTO (gate turn off thyristor) technology for 3 phase propulsion equipment for Electric Locomotives transfer of technology</p> <ul style="list-style-type: none"> ▪ Traction and Auxiliary Converter ▪ Vehicle Control Unit (VCU) 	<p>Delhi Metro propulsion equipment scope including Engineering and Project Management</p> <ul style="list-style-type: none"> ▪ Traction and Auxiliary Convertors ▪ Filter and Contactor box ▪ Train Control Management System (TCMS) ▪ High Voltage equipment ▪ Traction, Transformers and Motors 	<p>Mumbai Railway Vikas Corporation Phase II scope including Engineering and Project Management</p> <ul style="list-style-type: none"> ▪ Composite propulsion (Traction & Auxiliary Convertors) ▪ Electrics ▪ Train Control Management System (TCMS) ▪ Traction, Transformers and Motors ▪ Non propulsion, Driver & Shunting desk 	<p>Queensland Rail project scope including Engineering and Project Management</p> <ul style="list-style-type: none"> ▪ Integrated Propulsion equipment

Bombardier Transportation
 Propulsion and Controls
 ERDA Road, Maneja ,
 Vadodara - 390 013, India