

Alstom's automated CBTC technology bringing connected and efficient green mobility to Bengaluru

- **Alstom's driverless CBTC technology will significantly reduce travel time, traffic congestion, and CO2 emissions.**
- **The project Bengaluru Metro Phase 2, Reach 6, 2A and 2B is valued at 96.2 million euros and includes training of personnel and annual maintenance for 5 years.**
- **Marks the inaugural implementation of Platform Screen doors on Bengaluru Metro corridors**

12 June 2024 - Alstom, a global leader in smart and sustainable mobility, has been awarded the contract to design, manufacture, supply, install, test, and commission fully automated Communications Based Train Control (CBTC) signalling system for the upcoming Bengaluru Metro Phase 2, Reach 6, 2A and 2B. The contract worth 96.2 million euros with Bengaluru Metro Rail Corporation (BMRCL), includes training of personnel and annual maintenance for 5 years.

This project aims to cater to the three major corridors of the Bengaluru metropolitan region, by linking the critical junction at Silk Board on the Outer Ring Road (2A) to the Kempegowda International Airport (2B) via KR Puram. Reach-6 will connect Bannerghatta Road to Nagavara with interchanges at MG Road (Purple Line which connects to Whitefield); and yellow line at Jayadeva Hospital & the Blue Line at Nagavara.

Commenting on the occasion, Olivier Loison, Managing Director, Alstom India said, "Alstom is pleased to continue its longstanding partnership with Bengaluru Metro, which is India's second largest rapid transit system. The expansion of the network is a boon for commuters as it provides fast, reliable, safe, and comfortable transportation while easing traffic congestion across the city. We are committed to providing world-class efficient and sustainable mass transport system that caters to the special needs of Bengaluru and support the transition towards a sustainable future."

Alstom is a strong leader in the mass transit market and stands as the undisputed leader in CBTC technology worldwide. The company has over 30 years of expertise in radio CBTC and has been chosen for 190 CBTC metro lines, with over 90 lines in operation, worldwide. In India, 18 metro lines are currently equipped or underway, with Alstom's world-class signalling solutions.

Highlights of the solutions to be delivered to Bengaluru Metro Phase 2 - Reach 6, 2A & 2B.

At the core is Alstom's world leading CBTC technology, enabling driverless operation offering an exceptional level of service across the combined line length of 80.39 kms, this project is expected to alleviate traffic congestion in the city by minimizing travel time by at least 50%, reducing CO2 emissions, and making a substantial contribution to the expanding public infrastructure of India's Silicon Valley. Alstom's rail cyber security solution, backed by a secure and certified development process, will deliver an efficient answer to emerging cyber threats by safeguarding the backbone of modern transportation.

To enhance passenger safety, full height platform screen doors (PSDs) will be installed at all underground stations on Reach-6 corridor and the Airport line terminal, and half-height platform screen

gates (PSGs) will be installed at one at-grade station (2B corridor). PSDs at underground stations can lead to significant energy savings by reducing air-conditioning needs. This will be the first implementation of platform screen doors on Bengaluru Metro corridors.

Alstom's CBTC Urbalis™, a solution developed in our Bangalore site with 1,000+ engineers for deployment of various solutions worldwide, will also offer the highest Grade of Automation (GoA4), which is commonly known as the 'driverless technology' across 50 stations and 3 depots. Alstom's Urbalis Vision™ platform will be setup at the integrated Operation Control Centre (OCC), being built at Baiyappanahalli, and the backup Control Centre (BCC) located at Peenya, which will serve as a command centre to control and monitor all train operations. The onboard automatic train control will interface with the rolling stock manufactured by BEML, under Package 5RS-DM managing the headway and safety of 53 trains in a 6-car configuration each.

Alstom will deploy its predictive maintenance tool – HealthHub™, to enable real-time condition-based monitoring of the health of trains, infrastructure and signalling assets using advanced data analytics to predict the remaining useful life. This approach minimises operational downtime, maximises system availability, and optimises lifecycle costs.

This is the third contract for Alstom with BMRCL. The company is currently providing traction and power supply electrification for the 33-kilometre extension to Bangalore Metro under Phase 2. In 2009, Alstom won the contract to provide the U200 signalling and telecommunications solution for 42 kilometres of track comprising Bangalore Metro Phase I, which was completed in 2017.

About Alstom

Alstom commits to contribute to a low carbon future by developing and promoting innovative and sustainable transportation solutions that people enjoy riding. From high-speed trains, metros, monorails, trams, to turnkey systems, services, infrastructure, signalling and digital mobility, Alstom offers its diverse customers the broadest portfolio in the industry. With its presence in 64 countries and a talent base of over 84,700 people from 184 nationalities, the company focuses its design, innovation, and project management skills to where mobility solutions are needed most. Listed in France, Alstom generated revenues of €17.6 billion for the fiscal year ending on 31 March 2024.

For more information, please visit www.alstom.com.

About Alstom in India

Alstom is the only multinational sustainable mobility provider in India, to have a comprehensive portfolio of offerings to meet customer specific needs, from cost-efficient mass-market platforms to high-end technological innovations. Synonymous with the country's 'Rail Revolution', Alstom continues to be a strategic partner in supporting India's freight revolution and passenger movement. With 6 industrial sites and 4 major engineering centres, the company not only caters to domestic project needs, but also delivers for many international projects. Supporting the government's modernisation initiatives, Alstom has been at the forefront of introducing several breakthrough technologies in India with world class rolling stock, rail equipment & infrastructure, signalling and services. Fully aligned with the country's vision of Make-in-India and Aatmanirbhar Bharat, Alstom remains deeply committed to strengthening its local sourcing and supply chain ecosystem.

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