Alstom completes most powerful all-electric "Make-In-India" locomotive from Madhepura and announces contract wins worth €75 million in India

10 March 2018 - Alstom announced the completion of its first all-electric locomotive from its state-of-the-art locomotive facility at Madhepura in the State of Bihar¹, on schedule. In line with the Government's and Indian Railways' target towards 100% electrification and towards sustainable mobility, these new locomotives will not only bring down operating costs for the Railways but will significantly cut down greenhouse gas emissions as well.

This first locomotive is part of a €3.5 billion order comprising 800 electric double-section locomotives signed in 2015 which contributes to the Ministry of Railways' public-private partnership programme to modernise the country's rail infrastructure. This agreement remains the largest Foreign Direct Investment in the railways sector to date and has a strategic role in creating a multiplier effect on the economy. This contract is also one of the biggest contracts in the history of Alstom.

"Our operations in India are paramount to our business globally and we continue to stay committed to developing India's infrastructure needs, improving the quality of services to citizens and investing in the nation's economy," said Henri-Poupart Lafarge, Chairman and CEO, Alstom.

Further commenting on the completion of the first electric locomotive, he added, "This project stands as a shining example of Alstom's commitment to 'Make in India'. Apart from creating thousands of jobs directly and indirectly, we have created a strong localised supply chain for this project, with 90% of the components for the prototype sourced locally."

Thanks to its 12,000 horsepower, each double section locomotive, part of Alstom's Prima locomotives family, has a hauling capacity of 6,000 tonnes and speed of 120km/hr, allowing faster and safer movement of heavier freight trains across the country, thereby reducing congestion for passenger train services and freight. Equipped with IGBT based propulsion technology², these locomotives will be compliant with Indian standards of freight transport and will have the ability to endure tough Indian climate and conditions. The locomotives were developed with the support of 6 Alstom sites in France: Belfort for the 6 first car bodyshells, and Ornans for the motors, Tarbes for the traction, Le Creusot for bogies, Villeurbanne for the train control monitoring systems and Saint-Ouen for the design.

In another significant development, Alstom announced three new contracts worth approximately €75 million - power supply contract from the Mumbai Metro Rail Corporation Ltd (MMRCL), contract for new train sets from Chennai Metro Rail Corporation and another power supply contract from Jaipur Metro Rail Corporation. This development shows Alstom's growing footprint in the country, in both the urban space as well as the mainline space.

² An insulated-gate bipolar transistor (IGBT) is a three-terminal power semiconductor device primarily used as an electronic switch which combines high efficiency and fast switching.



¹ The facility is a Joint-Venture between Alstom (74%) and Indian Railways (26%)

Additionally, phase 1 in the construction of the electric locomotive facility at Madhepura and the depot at Saharanpur is complete and work is progressing as per the contractual timelines. To give skilling and local hiring an impetus, focused efforts towards nurturing young minds in communities in and around Madhepura have been initiated. With the help of local NGOs, Alstom Foundation is working to foster better health care, education and dignified livelihood in the area.

About Alstom

As a promoter of sustainable mobility, Alstom develops and markets systems, equipment and services for the transport sector. Alstom offers a complete range of solutions (from high-speed trains to metros, tramways and e-buses), passenger solutions, customised services (maintenance, modernisation), infrastructure, signalling and digital mobility solutions. Alstom is a world leader in integrated transport systems. The company recorded sales of $\epsilon 7.3$ billion and booked $\epsilon 10.0$ billion of orders in the 2016/17 fiscal year. Headquartered in France, Alstom is present in over 60 countries and employs 32,800 people.

Press contacts:

Christopher English – Tel. + 33 1 57 06 36 90 christopher.a.english@alstomgroup.com

Shilpashree Muniswamappa – Tel +91 9845120700 Shilpashree.muniswamappa@alstomgroup.com

Investor relations

Selma Bekhechi – Tel. + 33 1 57 06 95 39 selma.bekhechi@alstomgroup.com

Julien Minot – Tel. + 33 1 57 06 64 84 julien.minot@alstomgroup.com

Website www.alstom.com

