INFORMATION MEMORANDUM

Rail Coach Factory, Kanchrapara – Project

1.0 Background

- 1.1 The Ministry of Railways, Government of India (the "Authority") is engaged in the development of railways. Railway network of the Authority is about 64,000 route kilometres and carries more than 6.5 billion passengers every year. For update on trends, prospects and opportunities, in transport sector in general and railway sector in particular, in India, prospective **Applicants** may visit the website www.indianrailways.gov.in Vision 2020 document for and www.planningcommission.nic.in for chapter on transportation in 11th Five Year Plan.
- 1.2 In view of growth, witnessed in recent years and projection in coming years, in demand for urban and intercity mass mobility, the Authority has decided to enable setting up of a factory to manufacture rail cars powered by a dedicated propulsion system at Kanchrapara in West Bengal (the "Factory") for supply thereof on the basis of a long term procurement-cum-maintenance contract (the "Project") through Public-Private Partnership (the "PPP") on Build, Own and Operate (the "BOO") basis, and has decided to carry out the bidding process for selection of a private entity as the bidder to whom the Project may be awarded.

2.0 The Site

- 2.1 The Authority has earmarked about 150 acres of land in Kanchrapara Halisahar railway complex in North 24-parganas District of West Bengal for setting up the Factory (the "Site"). Kanchrapara Eastern Railway Workshop and a railway colony is also situated in the Kanchrapara Halisahar railway complex. About 10, 000 employees work in Kanchrapara Halisahar railway complex. A 200 bed hospital is also operating in the Kanchrapara Halisahar railway complex.
 - For information on state of West Bengal, prospective Applicants may visit the website http://www.wbgov.com/.
- 2.2 The Site is well connected with seaport, airport and highways. Nearest seaport Haldia is about 150 kms from the Site. Netaji Subhash Chandra International Airport, Kolkata is about 40 kms from the Site on Kalyani Expressway. Halisahar railway station is about 1 km from the Site. Halisahar and Kanchrapara railway stations are located on Sealdah Lalgola broad gauge railway line of Eastern Railway and are well served by EMU services of Sealdah division.
- 2.3 Power availability in the region is satisfactory. 132 KV/33KV sub-station of West Bengal State Distribution Company Limited (WBSDCL) authority is about 5 km from

the Site. The Authority is setting up a sub-station in the vicinity of the Site for providing power supply, at applicable tariff, to the Factory.

2.4 Hooghly River is situated within 3 kms from the project site.

3.0 Technical Specification of EMUs

- 3.1 Authority has taken up some projects for up-gradation of EMU technology. As part of the measures towards technological improvements, Authority has introduced IGBT based propulsion system for AC/DC EMU rakes of Mumbai. Even stainless steel car bodies for EMUs are being inducted.
- 3.2 The EMUs produced in the proposed Factory at Kanchrapara are expected to consolidate technological improvement adopted by the Authority and are also expected to be provided with passenger-friendly measures.
- 3.3 Proposed technology for EMUs may interalia include following:
 - Low maintenance requirements, especially pit maintenance, through use of modern design bogies, stainless steel/aluminium exteriors, disc brake system etc.;
 - Improved safety features with fire retardant interiors, modern couplers with anti climbing features, wider gangway design for safe inter rail car movement etc.;
 - Improved passenger comfort, through use of bogies with superior ride index, efficient air conditioning with automatic temperature and humidity control, superior interiors and toilets etc.;
 - Higher speed capability to run up to 160 kmph, upgradable to 200 kmph;
 - Under-Slung/roof-mounted IGBT propulsion system to release passenger space.
 - Friendly access to physically challenged passengers;
 - Folding step for physically challenged passengers;
 - GPS enabled passenger announcement system for on-board announcements for station arrivals, time to next station/destination, safety announcements etc;
 - Air-conditioning/Fresh air ventilation;
 - Vandal-proof interiors.