



उत्तर प्रदेश मेट्रो रेल कॉरपोरेशन लि०

UTTAR PRADESH METRO RAIL CORPORATION LTD.

(Formerly Known as Lucknow Metro Rail Corporation Ltd.)

(भारत सरकार एवं उत्तर प्रदेश सरकार का एक संयुक्त उपक्रम)

(A JOINT VENTURE OF GOVT. OF INDIA & GOVT. OF U.P.)

No. UPMRC/S&T/Telecom/KNPAGS-01

Date: 26.11.2020

To,

All Bidders

Sub: Addendum-3 and extension of bid submission date for Tender Package KNPAGS-01

Ref: Design, manufacture, supply, installation, testing and commissioning of Fiber Optic Transmission System, Telephone System, Train Radio TETRA System, Public Address System, Passenger Information Display System, Master Clock System, CCTV System, Access Control System and Power Supply System (for Signalling, Telecommunication, AFC and E&M equipment), supply of spares, DLP Maintenance and the training of operation and maintenance personnel for these systems for Kanpur Metro (Corr-I & Corr-II) and Agra Metro (Corr-I) projects of Uttar Pradesh Metro Rail Corporation Ltd at Kanpur and Agra, Uttar Pradesh, India


Dear Sir,

With reference to the above subject, Addendum-03 of tender KNPAGS-01 is attached herewith.

Also, please note the bid submission date has been extended upto 15.12.2020.

Thanking You,

Regards,

For 
26/11/2020
(Chief Electrical Engineer/Projects-II)

Tender KNPAGS-01: Addendum-03

Volume	Portion	Clause No	Existing Para/Sub-Para/Clause	Add	Del	Mod	Modified Para/Sub-Para/Clause/New-Clause
4 (Particular Specification)	Chapt-01	2.0	Not Used	√			<p>2.1.Where equipment manufacturers have been specifically named, alternative manufacturers of equivalent reputation and standing will be acceptable.</p> <p>2.2.Where performance figures have been quoted, these are to be understood as minimum requirements and not as exact requirements. Higher figures will be accepted.</p> <p>2.3.The tenderer is required to comply with the Preliminary design to ensure that tentative capacities, ratings and quantities of equipment indicated meet the functional, performance and RAMS requirements with the objective of having a state of the art system.</p> <p>2.4.During the design stage the contractor will be required to submit a clause wise statement of compliance to these specifications with detailed explanations and document references where such requirements shall be verified.”</p> <p>2.5. Higher MTBF / Other RAMS figures mentioned in this Chapter-01 of PS are desired values. The minimum requirements for different sub-systems are written in respective chapters of this PS.</p>
4 (Particular Specification)	Chapt-01	8.3.2	Factory acceptance test shall be carried out for all equipment and cables used for Telecom Sub-Systems as specified in different chapters of PS. FAT shall be done in OEM manufacturing premises. If equipment are being manufactured in multiple location than FAT should be in done in two stages. First stage will be at Factory premises and second stage will be either at site or at System Integrator’s premises for functional test of combined subsystems.			√	Factory acceptance test shall be carried out for all equipment and cables used for Telecom Sub-Systems as specified in different chapters of PS. FAT shall be done in OEM manufacturing premises. If components of the equipment are being manufactured in multiple location then FAT should be done in System Integrator’s premises.
4 (Particular Specification)	Chapt-02	1.6.2.3	MTBF Figures: Network Management System>100000 hours			√	MTBF Figures: Network Management System> 100000 50,000 hours
4 (Particular Specification)	Chapt-02	1.7.1	The Mean Time to Repair, not including travel time, of the FOTS, its elements and networking shall be less than 1 (One) hour (excluding travel time). The travel time should not be more than one hour.			√	The Mean Time to Repair, not including travel time, of the FOTS, its elements and networking shall be less than 4 (One-Four) 4 hour (excluding travel time). The travel time should not be more than one hour.
4 (Particular Specification)	Chapt-02	1.20.11 (A): After Clause 1.20.11		√			NOTE: Alternative solution shall also be acceptable provided that the contractor is able to demonstrate equivalent or no security risks at design stage.
4 (Particular Specification)	Chapt-04		(v) NMS Server & workstation for IBS for both TETRA & Mobile Cellular system> 100,000 hours (vi) Servers & Workstation for CDRS> 100,000 hours			√	(v) NMS Server & workstation for IBS for both TETRA & Mobile Cellular system> 100,000 50,000 hours (vi) Servers & Workstation for CDRS> 100,000 50,000 hours

4 (Particular Specification)	Chapt-04	4.2.1	TETRA Radio network management system>50,000 hours			√	TETRA Radio network management system> 50,000 30,000 hours
4 (Particular Specification)	Chapt-04	6.3.7	The use of radio frequency spectrum in India is regulated by the Wireless Planning & Coordination Wing (WPC) Wing of the Ministry of Communications, Government of India. The employer may be authorised the use of the frequency band 380-400 MHz for mobile train radio communication. However, a separate clearance for the use of specific frequencies is to be obtained. Based on the frequency plan proposed by the Contractor, approval from WPC shall be obtained by the Contractor and all the expenses, including License fees etc. shall be borne by the contractor till ROD of last section. The Contractor, if so, required by the WPC, shall incorporate specific changes in the frequency plan, after mutual discussions.			√	The use of radio frequency spectrum in India is regulated by the Wireless Planning & Coordination Wing (WPC) Wing of the Ministry of Communications, Government of India. The employer may be authorised the use of the frequency band 380-400 MHz for mobile train radio communication. However, a separate clearance for the use of specific frequencies is to be obtained. Based on the frequency plan proposed by the Contractor, approval from WPC shall be obtained by the Contractor and all the expenses, except regulatory fees, including License fees etc. shall be borne by the contractor till ROD of last section. The Contractor, if so, required by the WPC, shall incorporate specific changes in the frequency plan, after mutual discussions.
4 (Particular Specification)	Chapt-05	6.3.1.1	The hardware and software of the PAS shall use modular design to allow for easy expansion of the system. Addition of input and output ports for the switching equipment shall be achieved by simple addition of plug-in cards or input output modules including amplifiers which should be of a hot swappable card type.			√	The hardware and software of the PAS shall use modular design to allow for easy expansion of the system. Addition of input and output ports for the switching equipment shall be achieved by simple addition of plug-in cards or input output modules including amplifiers which should be of a hot swappable card type.
4 (Particular Specification)	Chapt-06	4.2.3	MTBF: PIDS/PAS Integrated Server for Station, Depot, CERs etc. > 100,000			√	MTBF: PIDS/PAS Integrated Server for Station, Depot, CERs etc. > 100,000 50,000
4 (Particular Specification)	Chapt-07	4.2.3	MTBF: The equipment shall comply with the reliability figures herein: Master Clock Unit> 100,000 Hours Sub-master Clock> 70,000 Hours			√	MTBF: The equipment shall comply with the reliability figures herein: Master Clock Unit> 100,000 50,000 Hours Sub-master Clock> 70,000 50,000 Hours
4 (Particular Specification)	Chapt-07	6.2	Technical System Performance: The overall Clock system accuracy shall be better than +/- 0.0 1 second per 24 hours. The Master Clock System shall comply with the NTP Protocol standard. Master Clock to be equipped with an internal quartz oscillator. This oscillator ensures that the Master Clock accuracy is better than 1×10^{-12} (Seconds per 24 Hours) in free running mode without the input of GPS signal.			√	Technical System Performance: The overall Clock system accuracy shall be better than +/- 0.0 1 second per 24 hours. The Master Clock System shall comply with the NTP Protocol standard. Master Clock to be equipped with an internal quartz oscillator. This oscillator ensures that the Master Clock accuracy is better than 1×10^{-12} 1×10^{-5} (Seconds per 24 Hours) in free running mode without the input of GPS signal.

4 (Particular Specification)	Chapt-08	6.2.20.1	Intelligent Video Analytics shall be implemented on the proposed cameras. Different types of Video analytics features shall include but not limited to: •Deep Neural Learning based analytics Camera should also be capable of advanced deep neural learning Analytics separately. Details are as follows: - Advance People Counting at station entries and others defined area.		√		Deleted
4 (Particular Specification)	Chapt-08	6.2.21.3 (J)	System should ensure that once recorded, the video cannot be altered, ensuring the audit trail is intact for evidential purposes. This has to be achieved using Authentication with SHA-1 hashing function or latest, secured with encryption to ensure authentication. Water marking alone for ensuring tamper proof recording is not sufficient. The VMS must support digital signature to prove authentication and integrity. Tamper proof recording mechanism which meets security of minimum 128 bits encryption shall be implemented.			√	System should ensure that once recorded, the video cannot be altered, ensuring the audit trail is intact for evidential purposes. This has to be achieved using Authentication with SHA-1 hashing function or latest, secured with encryption to ensure authentication. Water marking alone for ensuring tamper proof recording is not sufficient. The VMS must support digital signature/ Suitable Encryption to prove authentication and integrity. Tamper proof recording mechanism which meets security of minimum 128 bits encryption shall be implemented.
4 (Particular Specification)	Chapt-08	6.2.21.5 (K)	Map function shall allow the real-time status monitoring for VRM server/storage devices		√		Deleted
4 (Particular Specification)	Chapt-08	8	Incident Management System for CCTV:		√		Deleted
4 (Particular Specification)	Chapt-08		The screen should be of almost Zero Gap technology (Inter-screen gap< 0.2 mm). The screen should be minimum three layers with a Hard backing to prevent bulging. The screen surface should not be reflective with the half gain / viewing angle of the screen used in ±36° horizontal and ±34° vertical position.			√	The screen should be of almost Zero Gap technology (Inter-screen gap< 0.2 0.8 mm). The screen surface should not be reflective with the half gain angle of the screen used in ±36° horizontal and ±34° vertical position.
4 (Particular Specification)	Chapt-08		Each cube shall be IP based control. The control board input terminals to projection module will be 1x Digital DVI, 1x Dsub-15, 1x HDMI 2.0, 1x Display port 1.2, have a flicker free image on the Large Video Screen Graphics Wall.			√	Each cube shall be IP based control. The control board input terminals to projection module will be 1x Digital DVI/ 1x Dsub-15/ 1x HDMI 2.0/ 1x Display port 1.2 have a flicker free image on the Large Video Screen Graphics Wall.
4 (Particular Specification)	Chapt-08		Power consumption for each Visual Display Unit / Rear Projection Modules should be minimum ~350 watts.		√		Power consumption for each Visual Display Unit / Rear Projection Modules should be minimum ~350 watts.
4 (Particular Specification)	Chapt-08		The wall management software shall allow switching the video inputs. The software should support layout preview option. Software should have four levels of authentication (user account, permission, functionality & role etc).			√	The wall management software shall allow switching the video inputs. The software should support layout preview option. Software should have four levels of authentication (user account, permission, functionality & role etc).

4 (Particular Specification)	Chapt-09	1.2.1	The Uninterruptible Power Supply (UPS) system shall include, but not be limited to the following:- a. Online hot-swappable modular redundant UPS with suitable size modules.		√	The Uninterruptible Power Supply (UPS) system shall include, but not be limited to the following:- a. Online hot-swappable modular redundant UPS with suitable size modules.
4 (Particular Specification)	Chapt-09	1.3.1 (a)	Design, manufacture, supply, system assurance, installation, testing and commissioning of the Hot Swappable modular UPS System;		√	Design, manufacture, supply, system assurance, installation, testing and commissioning of the Hot Swappable modular UPS System;
4 (Particular Specification)	Chapt-09	3.2.8.1	The UPS shall be provided with a static By-pass switch. In the case of inverter failure, sub circuit failure, load start-up inrush or battery capacity being exhausted upon rectifier / charger supply down, the static bypass switch shall transfer the load to the mains automatically within 4 milli-seconds. Full protection discrimination shall be achieved on the bypass circuit. In case of a single sub-circuit fault, the capacity of the static by-pass switch shall withstand the fault energy until the protective device of the sub-circuit clear the fault. Static bypass module also should be hot swappable, in case of any fault, same should be replaceable without any shutdown the UPS.		√	The UPS shall be provided with a static By-pass switch. In the case of inverter failure, sub circuit failure, load start-up inrush or battery capacity being exhausted upon rectifier / charger supply down, the static bypass switch shall transfer the load to the mains automatically within 4 milli-seconds. Full protection discrimination shall be achieved on the bypass circuit. In case of a single sub-circuit fault, the capacity of the static by-pass switch shall withstand the fault energy until the protective device of the sub-circuit clear the fault. Static bypass module also should be hot swappable, in case of any fault, same should be replaceable without any shutdown the UPS.
4 (Particular Specification)	Chapt-09	4	System Expansion The UPS system shall be designed and equipped with all necessary hardware, software and capacity for future 25% additional load.		√	Deleted
4 (Particular Specification)	Chapt-10	3.2.3	MTBF: d) Central Server> 1,50,000		√	MTBF: d) Central Server> 1,50,000 50,000
Volume -1 ITT		F5.1	The Performance Security required in accordance with Clause 4.2 of the GCC shall be for 10% of the Contract Price from the Scheduled commercial Bank (including Scheduled Commercial Foreign Banks) in India in the currency in which the Contract Price is payable. The Performance Security shall be furnished to the Employer within 30 (thirty) days of receipt of the Letter of Acceptance. The form of Performance Security is provided in Schedule -2 of SCC		√	The Performance Security required in accordance with Clause 4.2 of the GCC shall be for 10% 3% of the Contract Price from the Scheduled commercial Bank (including Scheduled Commercial Foreign Banks) in India in the currency in which the Contract Price is payable. The Performance Security shall be furnished to the Employer within 30 (thirty) days of receipt of the Letter of Acceptance. The form of Performance Security is provided in Schedule -2 of SCC. (The performance security requirement of 10% mentioned in clause 4.2 of GCC and Appendix -1 of FOT(ITT) also to be read as 3%)