

NAGPUR METRO RAIL CORPORATION LIMITED

Date: 16.09.2016


Tender No. N1TR01/2016

(As Uploaded in the e-tender portal) 28

Name of the work: DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF SWITCHING SUBSTATION, RECEIVING CUM AUXILIARY MAIN CUM TRACTION SUB STATIONS INCLUDING HIGH VOLTAGE CABLING FROM GRID SUBSTATION, 33KV CABLE NETWORK, ASS & SCADA SYSTEM FOR NAGPUR METRO RAIL PROJECT.

Corrigendum -VII

Part A	Reply to bidders queries
Part B	Addendum


**General Manager
(Procurement)
NMRCL, Nagpur**

Corrigendum-VII, Part-A (Reply to Bidder's queries)

Tender No. N1Tr-01/2016

Overall SN	Vol No.	Clause no.	Bid Condition	Bidder's Queries	NMRCL's Response
1	Corrigendum IV	Sl. No. 18 & Sl. No. 250 of Part-A	--	We would like to bring to your kind notice that there is discrepancy in Corridendum IVA prebid clarification issued on 22.08.2016. i.e., As per Sl. No. 18 Form C will be issued by NMRCL which is contradicting with clarification under Sl. No. 250. We request you to please clarify whether Form "C" will be issued by NMRCL or not?	Form C shall not be issued by NMRCL
2	Corrigendum IV	Sl. No. 230 of Part-A and Sl. No. 39& 40 of Part-B	--	We would like to bring to your kind notice that there is discrepancy in Corridendum IVA prebid clarification issued on 22.08.2016. i.e., As per Sl. No. 230, 25kV switchgear rated insulation voltage is mentioned as 52KV whereas as per Part-B Sl. No. 39 & 40 it is specified as 40KV. We request you to please clarify insulation voltage level for 25KV switchgear.	Rated insulation voltage of 25kV GIS is 40kV as specified in corrigendum-IV Part-B Sl. No. 39 & 40
3	Corrigendum IV	Sl. No. 178 of Part-A	Development of simulation software is an additional requirement on top of above for future use of NMRCL. This requiremet can also be fulfilled by providing a software tool for the use of NMRCL for simulating various design and O&M aspect. NMRCL shall have unencumbered use of this software tool.	We would like to bring to your kind notice that there is discrepancy in Corridendum IVA prebid clarification issued on 22.08.2016. i.e., As per Sl. No. 178 calls for development of software whereas as per Sl. No. 35 of Part-B the scope of development of new software is deleted. We request you to please confirm that development of new software is deleted from the scope of the contract.	Development of new software is deleted as mentioned in corrigendum-IV Part-B Sl. No. 35
4	Part-1, Sec-IV, Anx-IV A	APPENDIX L SECTION MS, Page 128 of 155	Note 1: The minimum amount to be apportioned under Milestones A1 and A2 above shall be 1% and 1.25% respectively of the Bid Total cost.	As per Corrigendum No IV A, IT Requirements : Supply of licenses has been removed. Hence the requirement of quoting minimum amount of 1.25% of Bid total cost will not be applicable. Hence we request you to please delete the same.	No change foreseen
5	Corrigendum IV	Sl. No. 45, Part-B	The 132kV cables shall be able to withstand a short circuit current of 40 kA, for 3 sec.	We request you to please clarify whether the 132KV GIS at Mankapur i.e., MSETCL end to be provided with short circuit current rating of 40KA for 3 sec or 31.5KA for 3. sec.	No change foreseen
6	Corrigendum IV	09 Appendix H	Depth of cable laying	We would like to bring to your kind notice that there is discrepancy in depth of cable laying. i.e., as per Cl. No. 3.2 (i) Laid directly in ground /metaled road at 1.8 M below ground level, however as per Cl. No. 3.3 (iv) depth of cable laying is 1.2m approx. We request you to please clarify the depth of cable laying.	Depth of cable laying shall be 1.8m below ground level Refer to Tender Drawings
7	Corrigendum IV	09 Appendix H	Cl. No. 8.5, The offered type of EHV cable should have been successfully type tested as per labs mention in section A3 of Vol. I, tender specifications.	We would like to bring to your kind notice that list of labs are not specified in tender specifications. We request you to please furnish the same.	Refer Addendum
8	Corrigendum IV	09 Appendix H	Cl. No. 8 (c), AC system voltage (U0) for 24 Hrs to keep the cable on idle charge with minimum protection setting to protect the cable in 24 Hrs.	Please confirm that NMRCL / MSETCL shall provide the supply voltage for this field test.	Normally MSETCL provide the supply voltage for this field test but Contractor has to arrange it at their own level
9	Corrigendum IV	Part-B, SL. No. 1	33kV/415V, 400 kVA - 10 Nos.	We request you to please clarify the station names where 400KVA transformers would be required. This information would required in order to quote in the appropriate cost center.	Unable to confirm at this stage. The cost centre may vary a bit but the overall cost shall be same for bidder. Refer to addendum for the tentative list of stations with 400KVA transformers

Corrigendum-VII, Part-B (Addendum)

SN	RFP Part No.	Section	Clause ref.	Existing description	Replaced with / Clarification
1.	Part 1	Corrigendum 4, Part A	SN 18 & 250	Discrepancies between the responses issued by NMRCL against these queries	It is clarified that NMRCL will not be able to issued "C" Form. If it is issued later, the tax benefits shall be transferred to NMRCL.
2.	Part 2	Corrigendum 4, Part A & Part B	SN 230, Part A and SN 39 & 40, Part B	Discrepancies related to 25kV switchgear insulation level	It is clarified that SN 39 and 40 of Corrigendum 4, Part B prevails (i.e. 40kV)
3.	Part 2	Corrigendum 4, Part A & Part B	SN 178, Part A and SN 35, Part B	Discrepancies related to simulation software development	It is clarified that SN 35 of Corrigendum 4, Part B prevails (i.e. development of simulation software deleted)
4.	Part 2	Corrigendum 4, Part B	SN 46	The cable along with its accessories should also be compliant to GTR of MSETCL, which is place as new Appendix-H to the particular specification.	<p>The cable along with its accessories should generally be compliant to GTR of MSETCL. For general reference of Bidders, the following documents of MSETCL are added as Appendix H to the Particular Specifications:</p> <ul style="list-style-type: none"> • Specification for EHV cabling <ul style="list-style-type: none"> ○ Annexure A – 220kV/132kV EHV XLPE Cable Specification ○ Annexure B – 245kV/132kV XLPE Cable Terminations and Jointing Kits <p>The above MSETCL specifications are for general reference only and the conductor size (1000 mm²) & short circuit current (143kA for 1 sec) need not be given cognisance as such. The design and sizing of NMRCL cables shall be performed by Contractor duly meeting the requirements specified in the PS elsewhere.</p>
5.	Part 2	Corrigendum 4, Part B	SN 47	Appendix – H Specification of EHV cable & accessories. (Please refer attached pdf document)	Appendix – H (for general reference only) Specification of EHV cable & accessories. (Please refer attached pdf document)

SN	RFP Part No.	Section	Clause ref.	Existing description	Replaced with / Clarification
6.	Part 1 & 2	Corrigendum 4, Part B	SN 1 & 8	Clarification regarding location of 400kVA auxiliary transformers	For the purpose of costing of various CCs/MSs, the tentative five (5) stations where 400kVA ASSs may be considered are as under: <ul style="list-style-type: none"> • Sitabuldi stations of both corridors (2 nos. stations i.e. 4 transformers) • Chhatrapati Square • Jaiprakash Nagar • Ujwal Nagar
7.	Part 1	Annexure IV-A Pricing Document	Corrigendum 4, Part B Item no. 7 (Appendix R: IEEMA formula for price variation)	IEEMA/PVC/PWR TRF_above 400kV/DE/2015; Effective from 1 st April 2015 ... Price Variation Clause for Power Transformers	IEEMA/PVC/PWR TRF_above 400kV/DE/2015; Effective from 1 st April 2015 ... Price Variation Clause for Power Transformers IEEMA/PVC/DIST-AL/2003 (R-1), Effective from Jan 01, 2009 Price Variation Clause for auxiliary transformers
SCADA related					
8.	Part 2	Section VII-B PS	5.6.12.2	Instant Status & Report (IS&R) Generation IS&R function shall provide for periodic historisation of analog and status data. Historisation shall take place in standard RDBMS package like MS SQL Server, Oracle etc. IS&R shall support archival of history data in external mass storage media like DAT drive, SDLT, MO Disk, CD &/or DVD. The archived data shall be retrievable on demand for analysis.	Instant Status & Report (IS&R) Generation The IS&R function shall provide for continuous historisation of analog and status data. Historisation shall take place in standard RDBMS package like MS SQL Server, Oracle etc. It shall be possible to export the IS&R data into EXCEL format for further use of analysis. It shall support timestamps stored with millisecond for SOE for the purpose of post fault analysis. IS&R shall support archival of history data in a separate redundant historian server for a minimum of 2 years. In addition to the data should be able to backup to external mass storage media like DAT drive, SDLT, MO Disk, CD &/or DVD. The archived data shall be retrievable on demand for analysis.

SN	RFP Part No.	Section	Clause ref.	Existing description	Replaced with / Clarification
9.	Part 2	Section VII-B PS	5.5.5.2.2	<p>Application Software</p> <p>In order to ensure robust quality and reliable software functions, the main part of the application software shall consist of standard software modules built as functional block elements. The functional blocks shall be documented and thoroughly tested. They form part of a library. The application software within the control / protection devices shall be programmed in a functional block language.</p>	<p>Application Software</p> <p>In order to ensure robust quality and reliable software functions, the main part of the application software shall be on Linux / Windows Operating System at Servers, which consist of standard software modules built as functional block elements. The functional blocks shall be documented and thoroughly tested. They form part of a library. The application software within the control / protection devices shall be programmed in a functional block language.</p> <p>The SCADA system shall support monitoring of servers (CPU usage and memory), network switches, routers and other IT devices through SNMP V3 protocol.</p> <p>The SCADA system shall be compliant with Cyber Security industry Standards such as NERC, CIP, CERT-In. Bidders shall provide detailed description of Cyber Security features supported by their offered system and what has been considered for delivery based on the specification.</p>
10.	Part 2	Section VII-B PS	3.2.6.1 (a)	<p>Interfaces to railway control facilities at OCC, BCC & SCR;</p>	<p>Interfaces to railway control facilities at OCC, BCC & SCR; SCADA shall be capable of supporting integrated operation for BMS, Telecom and solar system monitoring. SCADA system shall be open and expandable. The offered system shall support integration of all system easily over OPC interface;</p>

SN	RFP Part No.	Section	Clause ref.	Existing description	Replaced with / Clarification
11.	Part 2	Section VII-B PS	5.5.4.1.1	The VDU shall show overview diagrams (Single Line Diagrams) and complete details of the switchgear with a colour display. All event and alarm annunciation shall be selectable in the form of lists. Operation shall be by a user-friendly function keyboard and a cursor-positioning device. The user interface shall be based on WINDOWS concepts with graphics & facility for panning, scrolling, zooming, decluttering etc.	<p>The HMI platform should be based on the latest technologies such that the HMIs have the ease of usage and configuration. The VDU shall show overview diagrams (Single Line Diagrams) and complete details of the switchgear with a colour display. All event and alarm annunciation shall be selectable in the form of lists. Operation shall be by a user-friendly function keyboard and a cursor-positioning device. The user interface shall be based on WINDOWS latest operating system concepts with graphics & facility for panning, scrolling, zooming, decluttering etc.</p> <p>HMI shall support various user-defined views of system data and shall support Role based user access based on the permissions. The HMI shall support password complexities while creating user passwords.</p>
12.	Part 2	Section VII-B PS	5.6.1.8.2.1	Alarm shall be generated in case of any change from "normal" to "alarm" value of a monitored state. The processed alarm shall be considered as an alarm appearance event and shall generate an alarm.	Alarm shall be generated in case of any change from "normal" to "alarm" value of a monitored state. The processed alarm shall be considered as an alarm appearance event and shall generate an alarm. Alarm system shall support sort-out / grouping of various columns either by adding or deleting (through drag and drop) any fields in the alarming field of an attribute.

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G.M. (S)