

MMRDA/7/MMRP/CA-58: DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF TRACTION AND AUXILIARY POWER SUPPLY AND SCADA FOR METRO LINE 7 [ANDHERI EAST – DAHISAR EAST] OF MUMBAI METRO RAIL PROJECT OF MMRDA.

ADDENDUM No.3					
(SUMMARY SHEET)					
Amendment to Tender Documents (as per Pre-bid Queries received from Bidders)					
S.NO.	Section	Clause No.	In place of	Please read as	Remarks
IFB					
1	IFB	1.0 (2.) & Footer	1-1R1	1-1R2	Clause modified / added
PART – 1					
2	Section 2	ITB 24.1	Page 2-20R	Page 2-20R1	Clause modified / added
3		ITB 27.1	Page 2-21R1	Page 2-21R2	Clause modified / added
PART – 2					
4	Section 6	3.6 Cable Trays / Hangers	3-12	3-12R	Clause modified / added
5		13.4 ANNEXURE – 4	13-15	13-15R	Clause modified / added
6		13.4 ANNEXURE – 4	13-16	13-16R	Clause modified / added
7		13.4 ANNEXURE – 4	13-17	13-17R	Clause modified / added
PART – 3					
8	Section 8	Requirements under GCC/ SCC	8-63	8-63R	Clause modified / added

Note: All modification/additions are highlighted in 'Red' and deletions have been indicated in the form of ~~strikethrough~~

Invitation for Bids (IFB)

Date:

Loan/ Grant No. and Title:

Contract No. and Title: MMRDA/7/MMRP/CA-58: Design, Supply, Installation, Testing and Commissioning of Traction and Auxiliary Power Supply and SCADA of Metro Line 7 [Andheri East – Dahisar East] of Mumbai Metro Rail Project of MMRDA.

1.0 Deadline for Submission of Bids:

- The MMRDA has received financing from the New Development Bank (NDB) towards the cost of “**Design, Supply, Installation, Testing and Commissioning of Traction and Auxiliary Power Supply and SCADA of Metro Line 7 [Andheri East – Dahisar East] of Mumbai Metro Rail Project of MMRDA.**” Part of this financing will be used for payments under the Contract named above. The Mumbai Metropolitan Region Development Authority (MMRDA) (“the Employer”) invites bid from eligible Bidders for the **same work**.

2. Key details:

Completion period of the Work	18 (Eighteen) Months
Tender documents on sale	From 08.12.2018 to 07.01.2019 11.01.2019 24.01.2019 (up to 1800 1459 hrs) on e-tendering portal of MMRDA. https://etendermmrda.maharashtra.gov.in Tender document can only be obtained online after registration of tenderer on the e-tendering portal of MMRDA.
Cost of Tender documents	INR 11,200/- (inclusive of GST@12%). Non- Refundable. Tender Document and Supporting can be downloaded for reference purpose from the e-Tendering Portal of MMRDA during the period mentioned in the tender notice.
Pre-bid Meeting	14.12.2018 at 1100 hrs.
Last date of Seeking Clarifications	18.12.2018 up to 1730 hrs. Queries/clarifications from bidders after due date and time shall not be acknowledged.
Last date of issuing addendum	20.12.2018 28.12.2018 08.01.2019
Date & time of Submission of Tender online	07.01.2019 11.01.2019 24.01.2019 up to 1500 hrs
Date & time of Tender Closing	From 07.01.2019 11.01.2019 24.01.2019 (1501 Hrs) to 07.01.2019 11.01.2019 24.01.2019 (up to 1800 hrs)
Date & time of online Control Transfer of Bid (Bidders Activity)	07.01.2019 11.01.2019 24.01.2019 (1801 hrs) to 08.01.2019 14.01.2019 25.01.2019 (4800 1100 hrs)
Date & time of opening of Tender online	08.01.2019 14.01.2019 25.01.2019 at 1400 1101 hrs.
Authority for purchase of tender documents, seeking clarifications and submission of completed tender documents.	Director (System)-Metro PIU, 1 st Floor, A-wing, Old Administrative Building Mumbai Metropolitan Region Development Authority (MMRDA), Bandra Kurla Complex, Bandra (E), Mumbai – 400051 Phone: 91(22)26597552, Fax: 91(22)26594182 Email: metropiu.systems@mailmmrda.maharashtra.gov.in https://mmrda.maharashtra.gov.in

2.0 QUALIFICATION CRITERIA:

2.1 Minimum Eligibility Criteria:

2.1.1 Work Experience:

- **General Construction Experience:** Experience under the Construction Contracts in the role of prime contractor, JV Member or Management Contractor for at least the last 5 years.
- **Specific Construction and Contract Management:**

A) Tenderer should have Experience of satisfactory completion of similar works as under, as a prime contractor, Joint Venture Firm, Management Contractor or sub-contractor during last 05 years up to last day of month previous to the one in which bids are invited.

- One contract of “***similar works***” of **INR 116.4 Crores** or more

OR

- Two contracts of “***similar works***” of **72.75 Crores** or more

OR

- Three Contracts of “***similar works***” of **Rs. 58.2 Crores** or more

	It shall be the responsibility of the bidder / tenderer to ensure that the envelope containing 'Tender Security' and 'Cost of Tender Document' is submitted to the office of Director- System, Metro PIU at above-mentioned address before the prescribed dead line.
ITB 23.3	Tender Security' and 'Cost of Tender Document' submitted after due date and time shall not be accepted and online Bids of such Bidders shall liable to be rejected summarily.
ITB 23.4	Replace with MMRDA will not be responsible for delay, loss or non-receipt of 'Tender Security' and 'Cost of Tender Document' sent by post / courier. MMRDA shall not be responsible for 'Tender Security' and 'Cost of Tender Document' delivered to any other place / person in MMRDA other than the designated officer and does not reach the designated officer before the dead line for submission.
ITB 24.1	For bid submission purposes only, the Employer's details is E-Biding portal https://etendermmrda.maharashtra.gov.in . The deadline for bid submission is Date: 07 th 11 th 24th January 2019 Time: 15:00
ITB 25.1	Replace with Bids have to be submitted online on e-tendering website: https://etendermmrda.maharashtra.gov.in . It shall be the responsibility of the bidder to ensure that his tender is submitted on e-tendering website of https://etendermmrda.maharashtra.gov.in before the deadline of submission prescribed in ITB. Submission of Bids shall be closed on e-tendering website of MMRDA at the date & time of submission prescribed in IFB after which no tender shall be accepted. MMRDA will not be responsible for non-receipt of tender documents due to any delay and/or loss etc. The Employer may, at his discretion, extend the deadline for submission of Bids by issuing an amendment, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.
ITB 26.1	Replace with Except where expressly permitted by these Instructions, the Bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the documents prepared by the Employer and submitted by the Bidder with or as part of his bid. Withdrawal of a Tender during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Tender shall result in the forfeiture of the Tender Security.

ITB 26.2	<p>Replace with</p> <p>No Tender shall be allowed to be modified by the Tenderer after the deadline for submission of Tenders</p>
ITB 26.3	<p>Replace with</p> <p>The Tender submitted online will be taken as a final bid.</p>
ITB 27.1	<p>Replace with</p> <p>The Bids shall be opened online by the opening committee on due date and time of Bid openings mentioned in IFB at</p> <p>Street address: Mumbai Metropolitan Region Development Authority (MMRDA)</p> <p>Floor/Room number: 6th Floor, B-wing, Old Administrative Building,</p> <p>City: Mumbai</p> <p>Country: India</p> <p>Date: 09 08 44 25th January 2019</p> <p>Time: 1101 Hrs</p>
ITB 27.2-27.4	<p>Replace ITB 27.2-27.4 with</p> <p>Tenders for which an acceptable notice of withdrawal has been submitted pursuant to paragraph ITB 24 shall not be opened.</p>
ITB 27.5	<p>Replace ITB 27.5 with</p> <p>(a) Envelop (Envelop A) containing 'Tender Security' and 'Cost of Tender Documents' will be opened first. On opening of the same, MMRDA will first check the details of tender cost and tender security submitted by the tenderer online and cross verify the same with the hard copy submitted.</p> <p>(b) Tenders of those tenderers who have not submitted 'Tender Security' and 'Cost of Tender Documents' shall not be opened.</p> <p>(c) Tenders of those tenderers who have not submitted valid 'Tender Security' and valid 'Cost of Tender Documents' shall be considered as non-responsive and liable to be rejected summarily.</p> <p>The Letter of Technical Bid shall be initialed by his authorized representatives of the Employer attending Technical Bid opening.</p>
ITB 27.6	<p>Replace ITB 27.6 with</p> <p>The Technical Package (Envelop B) of all tenderers who have submitted a valid tender security and cost of tender document shall be opened in the presence of representatives of tenderers who choose to attend on date & time as mentioned in tender document in the office of the Director (System) – Metro PIU.</p>

3.5.14.3 Testing after Laying

All tests are to be performed as per IS/IEC Codes, which shall include Continuity Test, Insulation Resistance Test & Hi-POT test.

3.5.15 Miscellaneous Items

3.5.15.1 The Contractor shall be fully responsible for barricading the trenches, putting of sign boards with LED paint, lettering for day and red lamps for the night, employing security staff and taking any other precautions as per traffic rules. Typical arrangement of barricades to be employed is indicated in the Drawing No. AICA-L7-SYS-PST-1S5-X10018

3.5.15.2 The work shall be carried in co-ordination with road owning agency and traffic police.

3.6 Cable Trays / Hangers

3.6.1 The Contractor shall supply and install metallic cable trays, hangers along the cable route (excluding those on the viaducts) for supporting the various cables related to Works. The cable trays, hangers and all accessories, metal works shall be fabricated and galvanized as per the Technical Specifications IEC 61357 and ISO 1461 and shall have a minimum factor of safety of 3 (three).

3.6.2 Scheme for anchor fastening systems shall be subject to the approval by Employer's representative

3.6.3 ~~The indicative layout for the HT cable supports and the LT cable trays to be provided along the Viaduct is shown in Drawing No. AICA-L7-SYS-PST-1S5-X10006.~~ Allocation of various trays for HT/LT and Signalling cables shall be designed by the contractor in consultation with the E&M, S&T and Telecom contractors.

3.6.4 For installation of cable containment system, the Contractor shall submit drawings and obtain Employers approval.

3.7 Technical Particulars of 33 KV, Single Core, Aluminium Cable

3.7.1 Tests required as per the relevant IEC 60502/60840 or other standards mentioned in the Technical Specification. The test reports will be submitted to Employer for his approval. After getting the approval, integrated testing and commissioning will be carried out duly coordinating with designated Contractor during such various operating situations (putting into service, normal actuation, failure / tripping) will be demonstrated to Employer for his satisfaction.

3.8 33 KV GIS Switchgear

3.8.1 The 33-kV switchgear shall be installed inside auxiliary substations and AMS at RSS The Control Building AMS at RSS shall house 33kV GIS Switchgear. At each of the ASS, the 33kV GIS Switchgear must be provided. 33 kV Circuit breaker shall be provided for the incoming/outgoing feeders. The Switchgear shall be installed on a elevated base to permit the entry of 33kV cable at the bottom or alternatively top cable entry may be used.

3.8.2 At RSS, 33KV ASS will be GIS type Indoor switchgear comprising two incoming, six outgoing and one coupling bays including the PT, CT, disconnectors, LA's, Switches and other associated equipment and protection systems as per contract specification.

13.4 ANNEXURE – 4 : LIST OF RECOMMENDED VENDORS

S.No.	Item Description	Recommended Vendors
1	110kV GIS	ABB, GE, SIEMENS, HYUNDAI, TOSHIBA
2	EHV POWER TRANSFORMERS	ABB/GE/SIEMENS/CGL / TELK /T&R / SGB-GERMANY / BRUSH-UK / PAUWELS-BELGIUM
3	EHV TRACTION TRANSFORMERS	ABB/GE/SIEMENS/CGL/TELK/BHEL
4	EHV CURRENT TRANSFORMERS	CGL / ABB / SIEMENS / GE / BHEL
5	EHV VOLTAGE TRANSFORMERS	CGL / ABB / SIEMENS / GE / BHEL
6	EHV CIRCUIT BREAKERS	CGL / ABB / GE / SIEMENS / BHEL
7	25kV VACUUM CIRCUIT BREAKERS (SPRING-SPRING)	BHEL /ALIND / ABB/ CGL
8	25kV VACUUM INTERRUPTORS	BHEL /ALIND / ABB/MEGAWIN
9	25kV GIS	ABB / SIEMENS/SCHNEIDER
40	EHV ISOLATORS	CGL / SIEMENS / GE / SS-POWER / GR-POWER / HIVELM
11	EHV LA	CGL / LAMCO / OBLUM / SIEMENS / ELPRO
12	EHV POST-INSULATORS	WSI / MODERN / BIRLA / BHEL / IEC
13	CRP for RSS	ABB / GE / SIEMENS / CGL
44	110kV CABLES	UNIVERSAL / CCI / LS CABLE, KOREA / TAIHAN, KOREA / SILEC, FRANCE / NEXAN, FRANCE / SUDKABEL, GERMANY/PRYSMIAN/POLYCAB/FIN OLEX/HAVELLS/KEC/KEI/RAVIN
15	110 kV CABLE TERMINATION /STRAIGHT THROUGH JOINTS	ABB KABELDON, SWEDEN / RAYCHEM / FITCHNER OR SEAFAG, SWITZERLAND / SUDKABEL/3M
46	33kV & 25kV CABLES	NICCO / UNIVERSAL / TORRENT / KEI /POLYCAB /RPG / UNIFLEX / RAVIN / CGI / RPG/ FINOLEX/HAVELLS
17	33kV & 25kV CABLE TERMINATION / STRAIGHT THROUGH JOINTS	RAYCHEM / 3-M (M-SEAL) / IKEBANA
18	33kV GIS SWICHTHGEAR	L&T TAMCO / Siemens / ABB / GE /Schneider

19	RELAYS FOR HT PANELS	ABB / GE / SIEMENS / SEL / GE
20	DRY TYPE DISTRIBUTION TRANSFORMERS	KIRLOSKAR / SGB GERMANY / BRUSH UK / PAUWELS BELGIUM / ELECTROMECCANICA
22	LT PANELS (MDB)	L&T / SIEMENS / SCHNEIDER / ABB
23	RELAYS FOR LT PANELS	L&T / SIEMENS / ABB / GE / SCHNEIDER
24	LT PANELS AND DISTRIBUTION BOARDS	TRICOLITE / ANTELEC / ADLEC / NEPTUNE / JAKSON / ELSTEEL / VEEKAY STEEL
25	LV BUSDUCT (AIRINSULATED)	STAR DRIVE / CONTROL & SWITCHGEAR / ELPRO / GLOBE ELECTRIC / TRICOLITE / ENPRO
26	BATTERY	HBL / EXIDE / AMARA RAJA / AMCO / AMCO SAFT
27	BATTERY CHARGER	HBL / CHHABI / CALDYNE / AMARA RAJA
28	SCADA	ABB / GE / SIEMENS / CMC / HONEYWELL
29	UPS	EMERSON / APC / SOCOMEC / EATON / SCHNEIDER / AROS PCI / GUTOR
31	LT POWER CABLE	NICCO / UNIVERSAL / POLYCAB / TORRENT / KEI / PARAMOUNT / FINOLEX / RAVIN / RPG / UNIFLEX / LAPP KABEL / RADIANT / HAVELLS
32	LT CONTROL CABLE	NICCO / UNIVERSAL / HAVELLS / POLYCAB / KEI / PARAMOUNT / FINOLEX / RAVIN / RPG / UNIFLEX / LAPP KABEL / RADIANT /
33	CABLE TRAYS, SUPPORTS & ACCESSORIES	PROFAB / DEBASHISH / NAMPA / DOLPHIN / PATNY / PILCO / SLOTTCO / INAR PROFILES / JAMNA METAL COMPANY / METALLEMS / TECHNOFAB / OBO / HILTI / R.K ENGINEER / INDIANA / BRAVO /
34	LIGHT FIXURES	THORN / SCHREDER / PHILIPS / GE / WIPRO / BAJAJ
35	LIGHTING WIRES	POLYCAB / FINOLEX / HAVELLS / LAPP KABEL / RAJNIGANDHA / NICCO / PARAMOUNT / RAVIN
36	FIRE SURVIVAL CABLES	TYCO / AFW, FRTEK, PRYSMIAN, BELDON, LAPP KABEL
37	MINIATURE CIRCUIT BREAKERS (MCB)	HAGER (L&T) / SIEMENS / SCHNEIDER / LEGRAND / ABB / HAVELLS / STANDARD /

38	MOULDED CASE CIRCUIT BREAKER (MCCB)	HAGER (L&T) / SIEMENS / SCHNEIDER / LEGRAND / ABB / HAVELLS / STANDARD
39	MCB DB (LIGHTING AND POWER)	HAGER (L&T) / SIEMENS / SCHNEIDER / LEGRAND / ABB / HAVELLS / STANDARD /
40	POWER SOCKETS	L&T / CRAB TREE / LEGRAND / CLIPSAL / ABB / HONEYWELL (MK) / MENNEKES
41	SWITCH & SWITCH BOX	L&T / CRAB TREE / HONEYWELL (MK) / LEGRAND / LITASKI / CLIPSAL / ABB / HAVELLS
42	INTERLOCK SWITCH SOCKET	CUTLER HAMMER / B&C / MENNEKES / NEPTUNE / SCHNEIDER
43	TERMINAL BLOCKS	ELMEX / PHOENIX / WAGO
44	JUNCTION BOX (IP 55 & IP 65)	PYROTECH / BHAWANI / VEEKAY STEEL / UNILEC / KMG ATOZ
45	LT TERMINATION GLAND (BRASS)	COMET/SUNIL & CO / DOWELLS/ GRIPWELL
46	CU CRIMPING LUGS	DOWELS / JAIN SONS / COMET
47	LT JOINTING KIT	RAYCHEM / SAFE KIT
48	ALUMINIUM TUBE	SUDAL / CENTURY EXTRUSION / ALOM EXTRUSIONS / HINDALCO / INDALCO / JINDAL
49	FIRE SEALANT / FIRE / RESISTANT PAINT	LLOYDS / SIGNUM / HILTI / PROMAT / BIRLA 3M
50	MULTIFUNCTION ENERGY METER	L&T / SCHNEIDER / CONZERV / DUCATI / SOCOMEC
51	OFC	STERLITE / DAKASHA / DELTON / LAPP KABEL / PARAMOUNT / GALADA
52	ACSR CONDUCTOR	GUPTA / APAR / GALAXY / HINDUSTAN VIDYUT/ STERLITE
53	CLAMPS AND CONNECTORS	MEGHA / KLEMMEN / TYCO / RASHTRAUDYOG / EXALT/ ITPPL

Annexure-III**Requirements under GCC/ SCC**

S.N	DESCRIPTION	Clause Ref.	REQUIREMENT
i	Amount of Performance Security	Clause 13 of SCC Clause 13.3 of the GCC	10% of the Contract Price in types and proportions of currencies in which the contract price is payable. In the event of variations during the execution of the contract which result in payments to the Contractor over and above the contract price, the Performance Security shall be suitably adjusted.
ii	Latest date for commencement' of the Works	Clause 5 of the SCC & Clause 8.1 of GCC	As per the referred clauses of SCC
iii	'Time for completion' of the work from the date of commencement of the work	Clause 6 of the SCC & Clause 8.2 of GCC	24 18 months
iv	Liquidated Damages	Clause 33 of the SCC & Clause 26.2 of GCC	Liquidated damages shall be levied as per the rate given in Appendix 4 of Section 9 for non-achievement of Key dates. The maximum limit shall be 10% of the contract price.
v	'Defects Liability Period' for the whole of the Works	Clause 34 of the SCC	As per clause 32 of SCC after the date of issue of Completion Certificate for the Part of the Works or from the date of ROD for the equipment's and systems employer starts using and accepted by employer for DLP.
vi	Amount of advance payment	Clause 12 of the SCC	As per the referred clauses of SCC
vii	Amount of Professional Indemnity Insurance (PII). (for the contracts having Design in scope of work)	Clause 60 of SCC	AOA (any one accident) limit equal to 6% of the contract value against lumpsum value in respect of 'design and construct' with AOY (any one year) limit of 2 incidents in a year . In the Professional Indemnity insurance Policy the deductible amount shall not be more than 5% of AOA limit. PII Policy shall be obtained within four weeks from 'date of