



**DELHI METRO RAIL CORPORATION LTD.**

(A Joint Venture of Govt. of India & Govt. of NCT, Delhi)

**Tender Document**

**For**

**“Annual Maintenance Contract for Breakdown and Preventive Maintenance of RTUs (Rockwell make PLCs) available at various location of Under Ground Metro station of Ph-1 (Vishwavidyalaya to CTST/L-2), Ph-II (UB to SAKT, CTST/L-6 to JGPA, and GTBR), CTUs at OCC and Rockwell applications installed in OCC servers.”**

DELHI METRO RAIL CORPORATION LTD.  
METRO BHAWAN, Fire Brigade Lane, Barakhamba Road  
New Delhi-110001

**SECTION 1****NOTICE INVITING TENDER****1.1 GENERAL**

Delhi Metro Rail Corporation (DMRC) Ltd. invites **e-open tenders in TWO STAGE SYSTEM (Technical Bid and Financial Bid)** from the eligible tenderers as per tender clause 1.2.of NIT for “Annual Maintenance Contract for Breakdown and Preventive Maintenance of RTUs (Rockwell make PLCs) available at various location of Under Ground Metro station of Ph-1 (Vishwavidyalaya to CTST/L-2), Ph-II (UB to SAKT, CTST/L-6 to JGPA, and GTBR), CTUs at OCC and Rockwell applications installed in OCC servers.”

1.1.1 Delhi Metro Rail Corporation (DMRC) Ltd. invites e-open tenders from eligible tenderers for the above-mentioned work as per following details:

Estimated cost of work	Rs. 12,04,448/-(inclusive of all taxes)
Tender Security amount	Rs. 24,089/- (in form of DD in favor of DMRC Ltd.)
Cost of Tender form (Non Refundable)	Rs. 5250/- (Rs.5000 plus 5% VAT)
Completion period of the Work	01 Year (from the 10 <sup>th</sup> day of issue of letter of acceptance)
Tender documents on sale	From 15.02.2016 to 07.03.2016 (upto1400 hrs) through e-tendering website <a href="http://www.tenderwizard.com/DMRC">www.tenderwizard.com/DMRC</a> Tender document can only be obtained after registration of tenderer on the website <a href="http://www.tenderwizard.com/DMRC">www.tenderwizard.com/DMRC</a> . For further information on this regard bidders are advised to contact 011-49424307, 011-49424365 or 011-23417910
Last date of Seeking Clarification	04.03.16 (up to 1500 hrs)
Last date of issuing addendum	07.03.2016
Date & time of Submission of Tender	07.03.2016 up to 1500 hrs
Date & time of opening of Technical Bid	07.03.2016 at 15.30 hrs
Date & time of opening of Financial Bid	Same will be intimated on <a href="http://www.tenderwizard.com/DMRC">www.tenderwizard.com/DMRC</a> after technical evaluation
Authority and place for purchase of tender documents, seeking clarifications and submission of completed tender documents	DGM/E&M/UG-II Delhi Metro Rail Corporation, 6 <sup>th</sup> floor, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi –110 001
The tender cost and tender security will be in the form of a Demand draft/ Banker's cheque drawn on a scheduled Commercial Bank based in India and should be in favor of “Delhi Metro Rail Corporation Ltd.” payable at New Delhi. The same should be submitted in original before opening of technical bid in the office of DGM/E&M/UG-II at the above mentioned address. NOTE: The bidders who fail to submit the tender cost & tender security (in original), etc. within stipulated scheduled time deemed to be rejected.	

- 1.1.2 **This is two bid open tender. Tenderer has to submit their e-offer in two different bids. One bid will be for technical bid and another will be for financial bid as per clause 8.1.3 of ITT.**

## 1.2 **Minimum Eligibility Criteria**

### 1.2.1 **Work Experiences:**

The tenderers should have the experience in the similar nature of work not less than three years. The tenderers will be qualified only if they have completed work(s) in last three years in Govt., PSU/Semi-Govt./Govt. Autonomous body as mentioned below:-

- a. Three similar works costing not less than the amount equal to 40% of the estimated cost.  
Or
- b. Two similar works costing not less than the amount equal to 50% value of estimated cost  
Or
- c. One similar work costing not less than the amount equal to 80% value of estimated cost

**Similar nature of work: Below mentioned work would be considered as similar nature work for the purpose of evaluation of work experience mentioned in above clause i.e. clause 1.2.1(a), (b) & (c).**

“Worked with Rockwell make PLCs and SCADA system.

- 1.2.2 Completion Certificate of above mentioned work clearly describing the above mentioned similar work.

- 1.2.3 The tenderer shall submit details of works executed by them in the Performa prescribed in **FORM A of FOT of ITT** for the works to be considered for qualification of work experience criteria. **Documentary proof such as completion certificates from client clearly indicating the nature/scope of work, actual completion cost and actual date of completion for such work should be submitted. Tender offers submitted without this documentary proof may be liable to be rejected.**

- 1.2.4 Value of successfully completed portion of any ongoing work will also be considered for qualification of work experience criteria.

- 1.2.5 The tenders for this contract will be considered only from those tenderers (proprietorship firms, partnerships firms, companies, corporations, consortia or joint ventures) who meet requisite eligibility criteria prescribed in the sub-clauses of Clause 1.2.1 of NIT. In the case of a JV or Consortium, all members of the Group shall be jointly and severally liable for the performance of whole contract.

A tenderer shall submit only one tender, either individually as a tenderer or as a partner of a JV/Consortium. A tenderer who submits or participates in more than one tender will cause all of the proposals in which the tenderer has participated either as sole tenderer or member of JV/consortium will be disqualified. No tenderer can be included as subcontractor while submitting a bid individually or as a partner of a JV/consortium in the same bidding process subsequently or at the tender stage. A tenderer, if acting in the capacity of subcontractor in any bid may however participate in more than one bid, but only in the capacity as subcontractor.

- 1.2.6 Tenderers shall not have a conflict of interest. Tenderers found to have a conflict of interest shall be disqualified. Tenderers shall be considered to have a conflict of interest with one or more parties in this bidding process, if:

- (a) a tenderer has been engaged by the Employer to provide consulting services for the preparation related to procurement for implementation of the project;
- (b) a tenderer's associate(s)/affiliate(s) (inclusive of parent firms) mentioned in subparagraph (a) above; or
- (c) a tenderer lends, or temporarily seconds its personnel to firms or organizations which

are engaged in consulting services for the preparation related to procurement for implementation of the project, if the personnel would be involved in any capacity on the same project.

- 1.2.7 A firm, who has purchased the tender document in their name, can submit the tender either as individual firm or as partner of a joint venture/consortium. However, the lead partner in case of JV shall be one who has experience of similar works.

### 1.3.0 NON SUBSTANTIAL PARTNERS IN CASE OF JV/CONSORTIUM

- a. Lead partner must have a minimum of 26% participation in the JV/Consortium.
- b. Partners having less than 26% participation will be termed as non-substantial partner and will not be considered for evaluation which means that their financial soundness and work experience shall not be considered for evaluation of JV/Consortium.
- c. In case of JV/Consortium, change in constitution or percentage participation shall not be permitted at any stage after their submission of application otherwise the applicant shall be treated as non-responsive.

### 1.3.1 **Financial Standings :**

- a. Applicant should have average Annual Turnover of last three audited financial years not less than **80% of X**.

**Where, X= estimated cost of work as per NIT**

#### **Completion periods in years**

- b. Self attested copy of VAT/Service tax registration certificate, PAN no.
- c. Applicant must not have been black listed or deregistered by any Govt. or Public sector undertaking during last 5 years the contractor has to submit an undertaking on Rs. 10 stamp paper duly attested by Notary
- d. Tenderer shall submit last three years (yr 2012-2013, 2013-2014, 2014-2015) audited financial statement duly attested by certified CA with firm number and membership number to work out net worth. The net worth must be positive.

Documentary proof of satisfying eligibility conditions and chartered accountant certificate for turnover to be furnished along with the application on printed letter heads. Testimonials of satisfactory completion should be obtained from an officer not below the rank of executive engineer

#### **Notes :**

Financial data for latest last three audited financial years has to be submitted by the tenderer in **FORM T-V** along with audited balance sheets. The financial data in the prescribed format shall be certified by Chartered Accountant with his stamp and signature in original. In case audited balance sheet of the last financial year is not made available by the bidder, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous '2' audited financial years will be taken into consideration for evaluation. If audited balance sheet of any year other than the last year is not submitted, the tender may be considered as non-responsive.

- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

- 1.3.2 The tender submission of bidders, who do not qualify the minimum eligibility criteria stipulated in the clauses 1.2 above, shall not be considered for further evaluation and considered rejected. The mere fact that the bidder is qualified as mentioned in sub clause shall not imply

that his bid shall automatically be accepted. The same shall be subject to the data as required for consideration of tender prescribed in the ITT

The mere fact that the tenderer is technically qualified as shall not imply that his bid shall automatically be accepted. The same should contain all Financial & other details as required for the consideration of tender.

- 1.3.3 Tender document consists of the following:
- a. Notice Inviting Tender - consisting of
    - i. Notice Inviting Tender
    - ii. Scope of Work
    - iii. Tender prices
  - b. Instructions to Tenderers
  - c. General Conditions of Contract
  - d. Special Conditions of Contract
  - e. Bill of Quantities.
- 1.3.4 The tenderers may obtain further information in respect of these tender documents from the office of **Deputy General Manager/E&M/UG-II** office, 6<sup>th</sup> Floor, Metro Bhawan Fire Brigade lane, Barakhamba Road New Delhi-110001
- 1.3.5 The intending bidders must be registered on e-tendering portal [www.tenderwizard.com/DMRC](http://www.tenderwizard.com/DMRC). Those who are not registered on the e-tendering portal shall be required to get registered beforehand. If needed they can be imparted training on 'online tendering process'. After registration the tenderer will get user id and password. On login tenderer can participate in tendering process and can witness various activities of the process.
- 1.3.6 The authorized signatory of intending bidder, as per Power of Attorney (POA), must have valid class-III digital signature. The tender document can only be downloaded or uploaded using Class-III digital signature of the authorized signatory.
- 1.3.7 Tender submissions will be made online after uploading the mandatory scanned documents towards cost of tender documents such as Demand Draft or Pay Order or Banker's Cheque from a Scheduled commercial bank based in India and towards Tender Security such as Demand Draft or Pay Order or Banker's Cheque from a Scheduled commercial bank based in India and other documents as stated in the tender document.
- 1.3.8 Tenderer is cautioned that the tender containing any material deviation from the tender document which consists of NIT, Instructions to tenderers, General conditions of contract, Special conditions of contract, Bill of quantities is liable to be summarily rejected as non-responsive.
- 1.3.9 Tenders shall be valid for a period of 180 days from the date of submission of Tenders and shall be accompanied with a tender security of the requisite amount as per clause 8.0 of ITT.
- 1.4.0 DMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No bidder shall have any cause of action or claim against the DMRC for rejection of his proposal.
- 1.4.1 Bidders shall note that the maximum file size that can be uploaded is 5 MB. All the uploaded files in tender submission should be named properly and arrange systematically.
- 1.4.2 The bidders are advised to keep in touch with e-tendering portal [www.tenderwizard.com/DMRC](http://www.tenderwizard.com/DMRC) for updates. Any corrigendum, addendum etc issued shall be part of this tender document and shall be made available on DMRC website [www.tenderwizard.com/DMRC](http://www.tenderwizard.com/DMRC)

(Vivek Shrivastava)  
 DGM/E&M/UG-II  
 Delhi Metro Rail Corporation Ltd  
 6th floor, Metro Bhawan,  
 Fire Brigade lane,  
 Barakhamba Road  
 New Delhi-110001

## SECTION 2

### SCOPE OF WORK

The contractor shall execute the work **“Annual Maintenance Contract for Breakdown and Preventive Maintenance of RTUs (Rockwell make PLCs) available at various location of Under Ground Metro station of Ph-1 (Vishwavidyalaya to CTST/L-2), Ph-II (UB to SAKT, CTST/L-6 to JGPA, and GTBR), CTUs at OCC and Rockwell applications installed in OCC servers”**

The contractor shall execute Annual Maintenance Contract of Rockwell make PLCs and servers with the suitable uniformed trained staff with modern equipments machinery for the following works in the DMRC premises.

To attend and rectify any logic, HMI, communication failure or any other software related failures within 24 hours of reporting. As the system is related to safety of commuters, Contractor has to send the staff on the same day. (No holiday can be granted). **Two Service engineer shall be deployed in the DMRC premises for 24 hours.**

#### **Maintenance of PLCs consists of :**

1. Visually inspection of PLC
2. Check for PLC running status
3. Check UPS and Raw supply status
4. Check the status/parameters of PLC online (in BMS)
5. Check healthiness of all modules i.e. DI, DO, AI, Controller cards, control net card etc.
6. Check healthiness of Modbus communication module
7. Check door arrangement
8. Proper cleaning and dusting of PLCs
9. **Take backup of PLCs logic**
10. **Any required PLC firmware /software up gradation**
11. Checking for any other discrepancies
12. Other required tasks

#### **Maintenance of Servers and workstations consists of :-**

- 1 Check for server status
- 2 Check for RTU communication with workstation
- 3 Check for Proper graphic display
- 4 Check for Antivirus updates
- 5 Check for Operating system update (if reqd.)
- 6 Proper cleaning and dusting of Servers and CPU
- 7 Inter connectivity of Servers and clients
- 8 Working of printers and other peripherals.
- 9 Functioning of DVD writer/USB slots etc.
- 10 **Take backup of all necessary applications**
- 11 **Any required software/Operating System up gradation**
- 12 Other required tasks

As the phase-I system is **almost 10 years old**, the contractor should check the availability of software, hardware and required tools. Contractor should have RS logix 5000 software (Ver. 11,12,13,14,15,)He should have adequate knowledge of RS logix 5000, RS linx, Factory talk view 15, 16, 17 versions, SQL, Visual basics, Marathon servers. if the system/ software is going to obsolete contractor shall inform **DMRC and necessary services for up gradation will be in scope of the contractor, DMRC shall provide the required software in that case.**

**SCOPE OF WORK ( Quarterly )****PREVENTIVE MAINTENANCE of RTU/ CTU PLCs**

<b>S.No.</b>	<b>DESCRIPTION</b>	<b>Checks</b>	<b>Remarks</b>
1	Switch off all MCBs Visually inspection of PLC		
2	Check for PLC running status		
3	Check for 24 volts indication		
4	Check for 230 volts indication		
5	Check UPS and Raw supply status		
6	Check fans, tube light, socket and other accessories		
7	Check voltage at all MCBs		
8	Check tightness of power supply connections		
9	Ping the particular PLC from the SCR		
10	Check the status/parameters of PLC online (in BMS)		
11	Check for cable schedule in PLC		
12	Check healthiness of redundant power supply		
13	Check the PLC battery		
14	Check PLC redundancy		
15	Cleaning of louvers filters		
16	Check Ethernet switch functioning		
17	Check leakage voltage if any		
18	Check healthiness of all modules i.e. DI,DO,AI,Controller cards, control net card etc.		
19	Check healthiness of Modbus communication module		
20	Check for fuse		
21	Check door arrangement		
22	check for earthing cable connectivity		
23	Take backup of PLCs logic		
24	PLC firmware up gradation & service pack software up gradation if required		
25	Online checking for any other discrepancies		

**NOTE:**

**Besides above mentioned periodic work, Contractor have to attend and rectify all software and hardware related failures, however spares are in the scope of DMRC**

**SCOPE OF WORK ( Quarterly )**

**OCC servers and workstations (RS view/factory talk view SE & ME ) located at SHPK and MB**

<b>S.No.</b>	<b>DESCRIPTION</b>	<b>Check</b>	<b>Remarks</b>
1	Check for Network Connectivity healthiness		
2	Check for server status		
3	Check for RTU communication with workstation		
4	Check for Proper graphic display		
5	Check for Alarms		
6	Check for Computer accessories installed		
7	Check for Antivirus updates		
8	Check for Operating system update (if reqd.)		
9	Check for Temporary files deletion		
10	Proper cleaning and dusting of Servers and CPU		
11	Check server memory RAM and hard disk		
12	Check any indication on server and CPU		
13	Any other discrepancies in Mother board and CPU		
14	Take backup of all necessary applications		
15	Check for any abnormal sound		
16	Functioning of KVM extender		
17	Check Ethernet switch functioning		
18	Mode Testing Randomly		
19	Inter connectivity of Servers and clients		
20	Working of printers and other peripherals.		
21	Functioning of DVD writer/USB slots etc.		

**NOTE: In addition to above mentioned periodic work, Contractor have to attend and rectify all software and hardware related failures however spares are in the scope of DMRC**

- DMRC is an ISO-14001 & OHSAS 18001 certified Organization for Environment, Health & safety. The work is to be carried out as per International Norms/Standards and in such a manner that all premises always look Neat & Clean. Similarly, the waste disposal is also carried out in totally sealed manner without affecting the Environment
- For hot works like welding, Brazing, Grinding and torch cutting & torch soldering to be carried out with prior hot work permit from DMRC under the supervision of DMRC staff and at most fire safety to be followed during execution of any hot work. Preferably the hot work should be carried out during non revenue hours.



**SECTION 3**  
**TENDER PRICES AND**  
**SCHEDULE OF PAYMENT**

**3.1 Tender Prices**

- 3.1.1 a. Unless explicitly stated otherwise in the Tender Documents, the contractor shall be responsible for the whole works, based on the Bill of Quantities and payment shall be as per accepted rates based on the activities carried out as in the Schedule of work.
- b. The rate quoted by the tenderer shall be inclusive of all duties, taxes, fees, octroi and other levies, materials; labor etc. service tax shall be shown separately in BOQ by the contractor.

**3.1.2 Schedule of Payment**

Payment shall be made by running bills as per accepted rates on the quarterly basis after submission of bill along with the service reports duly verified from the DMRC in charge.

Payment shall be subjected to deduction of all T.D.S as per applicable law.