



DELHI METRO RAIL CORPORATION LTD.

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

“Facility Management Services at Mundka Depot and Sarita Vihar Depot”

TENDER DOCUMENT

No. DGM/Elect/L-5&6/2015/4

Volume-1

- * **NOTICE INVITING TENDER**
- * **SCOPE OF WORK**
- * **TENDER PRICES AND SCHEDULE OF PAYMENT**

SECTION 1
NOTICE INVITING TENDER

1.1 GENERAL

Delhi Metro Rail Corporation (DMRC) Ltd. Invites **sealed e-open tenders in TWO PACKETS SYSTEM (Technical and Financial)** from the eligible tenderes as per tender clause 1.2.2 of NIT for "**Facility Management Services at Mundka Depot and Sarita Vihar Depot**".

1.1.1 The details of the Tender are as per following:

Approximate cost of work	Rs. 34,49,000/- (inclusive of all taxes)
Cost of Tender documents	INR 5250/- (inclusive of 5% DVAT) Non-Refundable
Tender Security amount	Rs. 68,980/-
Completion period of the Work	01 year (from day of issue of letter of acceptance)
Tender documents on sale	From 27/03/2015 upto 16/04/2015 through e-tendering website www.tenderwizard.com/DMRC Tender document can only be obtained after registration of tenderer on the website www.tenderwizard.com/DMRC . For further information on this regard bidders are advised to contact 011-49424307, 011-49424365 or 011-23417910
Last date of Seeking Clarification	27/04/15 (upto 1500 hrs)
Last date of issuing addendum	28/04/15 (upto 1400 hrs)
Date & time of Submission of Tender	28/04/15 (upto 1500 hrs)
Date & time of opening of Technical Bid	28/04/15 (upto 1530 hrs)
Date & time of opening of Financial Bid	Same will be intimated on www.tenderwizard.com after technical evaluation
Authority and place for purchase of tender documents, seeking clarifications and submission of completed tender documents	DGM/Elect/L-5&6 Delhi Metro Rail Corporation, 6 th floor, C-Wing, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi -110 001
<p>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 favour of "Delhi Metro Rail Corporation Ltd." payable at New Delhi.</p> <p>The same should be submitted in original before opening of technical bid in the office of DGM/Elect/L-5&6 at the above mentioned address.</p> <p>NOTE: The bidders who fails to submit the tender cost & tender security (in original), etc. within stipulated scheduled deemed to be rejected.</p>	

1.2 Eligibility Criteria (Mandatory documents)

1.2.1 Work Experiences:

- a. The firm should have successfully completed at least

One single work of similar nature of at least 80% value of contract or two similar work each of at least 50% value of contract and 3 works each of at least 40% each value of contract in Govt./Semi Govt organization/PSU/ Private Organization of Repute during last five years. (work completed up to 28 February 2015 shall only be considered)

Similar nature of work means: Facility Management/ Manpower contract for Operation & maintenance of Electrical system installed in Govt/Semi Govt organization/PSU / Private Organization of Repute during the last five years.

NOTE:

1. Successful completed portion of ongoing works shall also be considered for qualifying the eligible criteria.
2. Following documents shall be considered for evaluating the criteria of work experience:
 - a. The tenderer shall submit details of successfully completed similar works executed by them in the performa given in Form T-II for evaluation of their tender offer regarding **Clause 1.2.1.a**. 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. In case the work is executed for private client, copy of work order, bill of quantities, bill wise details of payment received certified by C.A., TDS certificates for all payment received and copy of final/ last bill paid by client shall be submitted.

1.2.2 Financial Standings -

- a. Applicant should have average Annual Turnover of last three audited financial years not less than 80% of total estimated cost of work.
- 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. 100 stamp paper duly attested by Notary in format enclosed in Annexure -D.
- d. Tenderer shall submit last three years (yr 2011-2012, 2012-2013, 2013-2014) audited financial statement duly attested by certified CA 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

- 1.2.3 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 Pre-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.

- 1.2.3 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.
- 1.2.4 The tenderers may obtain further information in respect of these tender documents from the office of Deputy General Manager /Elect/L-5&6 office, 6th Floor, Metro Bhawan, Fire Brigade lane, Barakhamba Road, New Delhi-110001
- 1.2.5 **The contract shall be governed by the documents listed above along with latest edition of CPWD Specification, IRS Specifications & MORTH Specifications. These may be purchased separately from the market.**
- 1.2.6 The intending bidders must be registered on e-tendering portal 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.
- 1.2.7 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.
- 1.2.8 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 Bank Guarantee or 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.
- 1.2.9 Tenderer is cautioned that the tender containing any material deviation from the tender document which consists of NIT, Instructions to tenderes, General conditions of contract, Special conditions of contract, Bill of quantities is liable to be summarily rejected as non-responsive.
- 1.2.10 Tenders shall be valid for a period of as per ITT clause 11 from the date of submission of Tenders and shall be accompanied with a tender security of the requisite amount as per ITT clause 12.
- 1.2.11 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.
- 1.2.12 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.
- 1.2.13 The bidders are advised to keep in touch with e-tendering portal 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.

(Gautam Kumar)

**Dy. General Manager/Elect/L-5&6
Delhi Metro Rail Corporation Ltd
Metro Bhawan, 6th Floor,
Curved Wing, Fire Brigade Lane,
Barakhamba Road, New Delhi-110001**

SECTION 2

SCOPE OF WORK

2.0 The contractor shall execute the work i.e. "**Facility Management Services at Mundka Depot and Sarita Vihar Depot**".

2.1 Detail scope of work

The contractor shall execute the work of "**Facility Management Services at Mundka Depot and Sarita Vihar Depot**"

2.2.1 Complete Daily Operation & Checks of Electrical and Mechanical System at Mundka and Sarita Vihar Depot of DMRC, including preventive maintenance and attending breakdown maintenance as detailed below :-

2.2.2 (a) Daily Preventive Checklist

Asset/Equipment	Activity
ETP/STP	Morning shift
	Check the operation of salt dosing pump and PE dosing pump
	Move the shaft by hand for free rotation
	Check the operation of Feed pump
	Check the condition of both the treated water transfer pump and its gauges
	Inspect the condition & operation of air compressor.
	check the oil level of air compressor
	Evening Shift
	Check the uniform bubbling in storage tanks of air grid
	visually inspect the condition of treated water for clarity, if required measure the PH & TDS
	Night shift
	Drain the condensate of air compressor, if required
	Check the connection of EC & ED at the plates for any corrosion and remove it.
	Check the condition of belts and is required adjust its tension of screw pump
	Adjust the belt tension and clean air filters of all the blowers, if required
	Check the oil level in the gear box of Agitator on both mixture & holding tank
Clean suction foot valve and discharge valve of dosing pump salt & PE, if required	
DG	Morning shift
	LUBRICATION- Check engine oil level.
	check & record parameter of DG set
	Check battery voltage
	Evening Shift
	Visual check parameter of DG set
	Check battery voltage
AIR SYSTEM - Check pre cleance dust pan weekly.	

	COOLING SYSTEM- Check coolant level.
	Night shift
	FUEL SYSTEM- Drain sediments from fuel tanks.
	Drain air tank.
	Check and correct leaks.
	Drain fuel filter/Water separator daily.
UPS	Morning shift
	Check the cooling fan operation
	Visual check of batteries for any crack, leakage & sign of overheating
	Check & record any fault if observed
	Evening Shift
	Check & record the load distribution
	record voltage & temp. reading from panel
	Check & record any fault if observed
	Night shift
	Check & record the load distribution
	record voltage & temp. reading from panel
	Check the operation of cooling fan
	Check & record any fault if observed
	Check the batteries for any visible crack, leakage, sign of overheating
Wall/Exhaust Fan/ ceiling fan/ pedestal fan	Morning shift
	Visual check for unusual noise & vibrations
	Visual check for any damage
	Evening Shift
	Visual check for unusual noise & vibrations
	Night shift
Check for any damage for cable, & loose connection	
Panel/Control panel/DB	Morning shift
	Visual check of cable for any sign of overheating
	Evening Shift
	record voltage, current, energy, power factor etc reading from panel
	Night shift
	cleaning of panels
Check for any loose connection, tight the same if any,	
Split AC	Morning shift
	Check fault status at remote
	Check for any abnormal sound
	Check of temperature sensor unit for cut off and ON
	Evening Shift
	Check for any abnormal sound
	Check of temperature sensor unit for cut off and ON
	Night shift
	Check the filter condition for cleaning
	Check fault status at remote

	Check for any damage or foul / burning smell
Fire Engine of fire pump room	Morning shift
	Check oil leakage in pipes
	Cooling system Check soft water supply
	Check for any leakage
	Evening Shift
	Check the air passage for leakage
	Exhaust, Check the exhaust for leakage
	Night shift
	Fuel system, Drain water and sediments accumulated at the bottom of the fuel tank
	Check the fuel level tank and fill up the tank at the end of each working day
	Air intake, Remove the dust from the evacuator valve
	Check exhaust for restriction
Fire Pumps	Morning shift
	Operation of fire pump
	Check for electrical supply connections.
	Evening Shift
	Check for any leakage /abnormality in pipeline
	Night shift
	Check & rectify water leakage from seal/glands tightness of all connections
Fire detection system	Morning shift
	Check the current device status of top
	Visual examination of the battery condition and its electrical connections feeding the system, rectify the same if found faulty
fire hydrants & Fire Extinguishers	Morning shift
	Check for physical condition of nozzle, connectors etc
Light	Morning shift
	check the on/Off status of all lights, if any found in non-working condition, get it illuminate by replacing/repair the light
General	Morning shift
	Co-ordination with all facilitation & technical rooms for proper working of E&M system
	Frequent rounds to site to check the operation & healthiness of equipments
	Supervision & overview of site day to day operation & overcome to general complaint
	Check the ON/OFF condition of pole lights/ depot lights as per lighting requirement of DMRC
	Check for any humming & chattering noise of electrical equipments
	Check for any foul and burning smell of electrical equipments
	Check for any tripping of electrical circuits/ equipments & if found, reset the same after checking the proper cause.
	Check the relay status

Check & record the load of individual electrical panels
Evening Shift
Take all necessary energy meter readings of panel
Take & record temperature of technical rooms
Co-ordination with all facilitation & technical rooms for proper working of system
Frequent rounds to site to check the operation & healthiness of equipments
Supervision & overview of site day to day operation & overcome to general complaint
Check the ON/OFF condition of pole lights/ depot lights as per lighting requirement of DMRC
Check for any humming & chattering noise
Check for any foul and burning smell
Check for any tripping & if found reset the same after checking the proper cause.
Check the relay status
Check & record the load on panels
Night shift
Exterior cleaning & dusting of equipments
lighting of all exterior, depot lighting
Co-ordination with all facilitation & technical rooms for proper working of E&M system
Frequent rounds to site to check the operation & healthiness of electrical equipments
Supervision & overview of site day to day operation & overcome to general complaint
Check the ON/OFF condition of pole lights/ depot lights as per lighting requirement of DMRC
Check for any humming & chattering noise
Check for any foul and burning smell
Check for any tripping & if found, reset the same after checking the proper cause.
Check the relay status
Check & record the load on panels

2.2.2 (b) Equipment/System wise Preventive Checklist

Asset/Equipment	Frequency	Activity
ETP/STP	Weekly	Check the operation of salt dosing pump and PE dosing pump
		Clean the bar screen chamber from all debris arrested
		Check the connection of EC & ED at the plates for any corrosion and remove it.
		Adjust the belt tension and clean air filters of all the blowers

		Check the operation of Feed pump
		Check the condition of both the treated water transfer pump and its gauges
		Check the condition of all the equipments located in electrical cabinet Ensure tightness of all terminals are tight and secured blow out the dust collected in the panel.
		Check the condition of belts and is required adjust its tension of screw pump
		Lubricate all the gears and bearing with grease of filter press
		Inspect the condition & operation of air compressor.
		check the oil level of air compressor
		Adjust the belt tension of air compressor if required
		Drain the condensate of air compressor
		Check the uniform bubbling in storage tanks of air grid
		Check the oil level in the gear box of Agitator on both mixture & holding tank
		visually inspect the condition of treated water for clarity, if required measure the PH & TDS
		Clean suction foot valve and discharge valve of dosing pump salt & PE
ETP/STP	Quarterly	check the condition of bolts and electrodes and replace them if required
		check the connecting lugs
		drain the EC & ED and tube settler completely and clean it with fresh water so as to clear them from accumulated dirt and debris
		Clean the holes with detergent and soft brush of Tube settler
		check the tightness of nuts and bolts and alignment of the shaft of agitator both on mixture & holding tank
		Move the shaft by hand for free rotation
DG	Weekly	LUBRICATION- Check engine oil level.
		FUEL SYSTEM- Drain sediments from fuel tanks.
		AIR SYSTEM - Check precleance dust pan weekly.
		Check air clearance restriction cleaner, change air cleaner element if required.
		COOLING SYSTEM- Check coolant level.
		OTHER MAINTAINANCE- Drain air tank.
		Check and correct leaks.
Drain fuel filter/Water separator daily.		

UPS	Monthly	Clean all battery termination and voltage checking
	Quarterly	On load operation and battery drain in 2hrs
		Visual check for bulgingness of battery
		Check the battery voltage of each unit
Yearly	Inspect for any sulphation, remove if found tightness of all electrical connection	
Exhaust Fan/ Ceiling Fan/ Pedestal fan/ Wall fan	Monthly	Clean & tightened the connections
Exhaust Fan/ Ceiling Fan/ Pedestal fan/ Wall fan	Yearly	Safety Check
Panel/Control panel/DB	Monthly	cleaning of panels
		Check for any loose connection, tight the same if any,
		Visual check of cable for any sign of overheating
Split AC	Weekly	Check filter for cleaning
		Check fault status at remote
		Check for any abnormal sound
		Check of temperature sensor unit for cut off and ON
		Cleaning of filters
Fire Engine of fire pump room	Weekly	Lube system Check engine oil level by opening Dipstick it should be done initially & 15 min. after shut down, top up req.
		Check oil leakage in pipes
		Cooling system Check soft water supply
		Check for any leakage
		Check hose pipe connections for looseness
		Check the circulation of water for any restriction
		Fuel system Drain water and sediments accumulated at the bottom of the fuel tank
		Check the fuel level tank and fill up the tank at the end of each working day
		Air intake Remove the dust from the evacuator valve
		Check the ait passage for leakage
		Exhaust Check the exhaust for leakage
		Check exhaust for restriction
Electric Check battery connection for looseness		

		Check the electrolyte level of each cell, it should be 1/2" above plates. Fill if required
		Apply petroleum jelly on battery terminals if required.
	Quarterly	Repeat the weekly check
		Air intake clean the bowl of air cleaner. Change the element if required
		Electric check the tension of V belt and adjust if required
		Check the connection of starter, dynamo and control panel.
	Half yearly	Repeat the quarterly check
		Lub system Replace the lube oil
		replace the lube oil filter element
		Fuel system Clean the filter sleeve with clean diesel
		Replace the pre filter insert of fuel filter
		Other maintenance, check the tappet valve clearance and adjust if required.
	Yearly	Repeat half yearly check
		cooling system clean radiator externally
		Check the thermostat element
Fuel system Check the fuel injector and adjust if required		
Clean the fuel tank thoroughly		
Fire Pumps	weekly	Operation of fire pump
		Check for any leakage /abnormality in pipeline
		Check & rectify water leakage from seal/glands
	Monthly	Greasing of bearings
tightness of all connections		
Fire detection system	Monthly/quarterly	Main FACP Check the battery terminal
		Tightening the connections
		Clean the panel with soft brush / light air pressure.
		Check the current device status of top
		repeater FACP & MCP & Hooters tightening of connections
		cleaning of panels with soft brush/light air pressure
		MCP & hooters testing for correct position

		Smoke detectors Operate one trigger device of randomly selected zone circuit to test the ability of control and indicating panel equipment to receive a signal and to sound in presence of DMRC engineer in charge
		Visual examination of the battery condition and its electrical connections feeding the system
		Heat detector Tightening of connections
		cleaning of detectors
		testing to ensure correct operation by heat up detector, in presence of DMRC engineer incharge
		Junction box Tightening of connections
		Cleaning of junction boxes
		Continuity checked
fire hydrants & Fire Extinguishers	Monthly	Check for physical condition of nozzle, connectors etc
Light	Daily	check the on/Off status of all lights, if any found in non-working condition, get it illuminate by replacing/repair the light
	Half Yearly	Check the tightness of connections
		Cleaning of lights
Earthing	Monthly	Visual check of earthing connection
		Tightness of connection
	Yearly	Check the earth resistance and submit the report

2.2.2 (c) Breakdown Maintenance:-

Equipment	Key Activity.
Panel/ Control Panels/ DBs	1, Fault rectifications i.e. correcting loose connections if any 2. Replacement of faulty MCB/MCCB in the DB 3. Replacement of contactors, fuses, relays etc.
FIRE ALARM & DETECTION SYSTEM	1. Checking of faulty detectors and rectify the same.
Lighting	1. Fault rectifications i.e. correcting loose connections if any 2. Replacement of faulty choke/ tube/ fixture etc. if required
Circuit breaker	1, Fault rectifications i.e. correcting loose connections if any 2. Replacement of faulty ACBs & other breakers/parts in the panels

Split ACs	<ol style="list-style-type: none"> 1. Fault rectifications i.e. correcting loose connections if any 2. Replacement of fuse/ capacitor, control card etc.
DG/UPS	1, Minor rectifications I.e. correcting loose connections if any

2.2.2 (d) Other activities/ scope of work to be carried out

- i) Contractor shall also carry out all in-house preventive/breakdown maintenance for associated equipments which are not mentioned in the scope of work but required for completion of job and system healthiness.
- ii) Contractor shall prepare the equipment wise monthly failure report and submit the same to DMRC at 7th date of every month.
- iii) Any released faulty equipment/component shall be property of DMRC.
- iv) Any spares/ material and consumable required for maintenance shall be provided by DMRC.
- v) Any failure shall immediately be reported to DMRC engineer.
- vi) The contractor supervisor shall submit the requisition for material required on monthly basis to DMRC engineer in-charge and store the sufficient inventory and consumables to upkeep the system.
- vii) **Breakdown maintenance which requires specialized team/ OEM like DG/ UPS/ AC/ Panels/ Fire Alarm System/ Breakers etc. shall be taken care by DMRC.**

2.3 Time schedule to attend the failure

- 2.3.1 Immediate as and when required.

SECTION 3
TENDER PRICES AND
SCHEDULE OF PAYMENT

3.1.1 Tender Prices

- 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, tools & tackles and labour charges etc.
- c. All duties, taxes, fees, octroi and other levies etc shall be applicable as per Indian government statutory norms.

3.1.2 TAXES AND DUTIES

- a. The firm shall quote rates for all items inclusive of all taxes and duties including octroi, Entry Tax, local area development tax and service tax as applicable.
- b. Works contract tax: - The rates offered by the firm shall also be inclusive of the work contract tax as applicable in the state. The Corporation i.e. DMRC shall deduct work contract tax from payments due to the firm as per rules of the state Government. The Accounts Officer of the concerned Division shall issue certificates for such deductions to the firm.
- c. **The registration no. of M/s _____ for Service Tax is _____ (The firm is to intimate its Service Tax no. at the time of quoting of the tender)**

3.1.3 Schedule of Payment

- a) The payment shall be made as per accepted rates on quarterly basis.
- b) The payment shall be made subjected to submission of jointly signed report of DMRC Engineer in charge & your representative.
- c) Payment shall be subjected to deduction of all T.D.S as per applicable