



DELHI METRO RAIL CORPORATION LTD.

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

**“Manpower contract for Operation & maintenance
of Electrical & Mechanical system installed at
Sultanpur Depot of DMRC”**

VOLUME-I

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

No. O&M/E&M/UG/2016/SLTPD/Manpower

SECTION 1**NOTICE INVITING TENDER (e-TENDER)****1.1 GENERAL**

Delhi Metro Rail Corporation (DMRC) Ltd. invites sealed open e-Tenders (two bids) from eligible applicants, who fulfill the qualification criteria as stipulated in clause no. 1.2 of NIT, for the work, **“Manpower contract for Operation & maintenance of Electrical & Mechanical system installed at Sultanpur Depot of DMRC.”**

1.1.1 The details of the Tender are as per following:

Approximate cost of work	:	Rs 16,55,703/- (inclusive of all taxes)
Tender Security amount	:	Rs 33,114/- (in form of DD in the favor of Delhi Metro Rail Corporation Ltd.)
Cost of Tender (Non-Refundable)	:	Rs. 5250/- (Rs.5000 plus 5% VAT)
Completion period of the Work	:	01 Year (from 10 th day of issue of letter of acceptance)
Tender documents on sale	:	From 09.08.2016 to 29.08.2016 (up to 1400 hrs) through e-tendering website https://eprocure.gov.in/eprocure/app
Date of Seeking Clarification	:	09.08.2016 to 29.08.2016 (up to 1500 hrs)
Last date of Issuing Addendum / Corrigendum	:	31.08.2016 up to 14:30 hrs.
Last Date & time of Submission of Tender Online	:	09.08.2016 to 29.08.2016 up to 1400 hrs
Date & time of opening of Technical Bid Online	:	31.08.2016 at 14.30 hrs
Date & time of opening of Financial Bid Online	:	Shall be informed after evaluation of technical bid through website https://eprocure.gov.in/eprocure/app
Authority and place for submission of tender cost, tender security, required documents (if any), seeking clarifications etc.	:	DGM/E&M/UG Delhi Metro Rail Corporation, 2nd floor, B-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 favor of "Delhi Metro Rail Corporation Ltd." payable at New Delhi.</p> <p>The same should be submitted in original before three hours of opening of technical bid in the office of DGM/E&M/UG at the above mentioned address.</p> <p>NOTE: The bidder who fails to submit the tender cost & tender security (in original) within stipulated scheduled time deemed to be rejected.</p>		

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 9.0 of ITT.

1.2 **MINIMUM ELIGIBLE CRITERIA :**

1.2.1 Work Experiences -

- a) The tenderers will be qualified only if they have completed work(s) during last five years ending on the last day of the previous month of tender submission (i.e. May-2016) as given below:
- a. One single work of "**similar nature**" of at least 80% of estimated value of contract.

OR

 - b. Two works of "**similar nature**", each of at least 50% of estimated value of contract.

OR

 - c. Three works of "**similar nature**", each of at least 40% of estimated value of contract

The contractors have completed the above works in Govt., PSU/Semi-Govt./Govt. Autonomous body.

Similar Nature of Work: "**Manpower contract for Operation & maintenance of Electrical & Mechanical system**".

NOTE:

1. Successful completed portion of ongoing works up to May-2016 shall also be considered for qualifying the eligible criteria.
2. Following documents shall be considered for evaluating the criteria of work experience:
 - a. Self-attested copies of work order, BOQ along with completion certificate (indicating the name of work, final amount, quantity of work, completion date etc.) issued by the client preferably on their letter head for completed work.
 - b. Self-attested copies of work order, BOQ and latest certificate issued by along with completion certificate issued by the client preferably on their letter head for quantum of work executed for work under progress.

1.2.2 Financial Standings -

- a) Contractor's average Annual Turnover of last three audited financial years should be equal to or more than 80% of estimated cost of work.
- b) Self-attested copies of VAT / Service Tax registration certificate, PAN No.
- c) Applicant must not have been blacklisted or deregistered by any Govt. or public sector undertaking during last five years. It should be on non-judicial stamp paper of Rs. 10/- duly attested by Notary, in the format enclosed in **Annexure -D**.
- d) Net worth of applicants should be positive. Tenderer shall submit last three years audited financial statement duly attested by certified CA to work out net worth.

Documentary proof of satisfying eligibility conditions and audited financial data 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, shall not be considered for further evaluation and considered rejected. The mere fact that the bidder is qualified as mentioned in above 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.

1.2.4 Tender document consists of the following documents:

VOLUME-I

- a. Notice Inviting Tender
- b. Scope of Work
- c. Tender Prices and Schedule of Payment

VOLUME-II

- a. Instructions to Tenderers
- b. Format of forms
- c. Special Conditions of Contract
- d. Other terms and conditions
- e. Contents of BOQ.

1.2.5 The contract shall be governed by the documents listed in **Para 1.2.4 above**.

Please note carefully the requirements for submitting tenders and the date & time for submittal.

1.3 The bidders may obtain further information / clarification, if any, in respect of these tender documents from the office of **DGM/E&M/UG, 2nd Floor, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001**

1.4 The intending bidders must be registered on e-tendering portal <https://eprocure.gov.in/eprocure/app>. 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.

1.5 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.

1.6 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.

1.7 Tenders shall be valid for a period of as per **ITT clause 12.0** from the date of submission of Tenders.

1.8 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.

1.9 DMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No tenderer shall have any cause of action or claim against the DMRC for rejection of his proposal.

1.10 Tenderers are advised to visit the site before offering their rates.

1.11 The bidders are advised to keep in touch with e-tendering portal <https://eprocure.gov.in/eprocure/app> for updates. Any corrigendum, addendum etc issued shall be part of this tender document and shall be made available on this e-tendering portal.

- 1.12 Late tenders (received after date and time of submission of bid) shall not be accepted under any circumstances.

(VIVEK SHRIVASTAVA)
DGM/E&M/UG
Delhi Metro Rail Corporation Ltd
2nd floor, Metro Bhawan,
Fire Brigade Lane,
Barakhamba Road,
New Delhi-110001

INFORMATION AND INSTRUCTIONS FOR "ON LINE BID SUBMISSION"

The intending tenderers must read the terms and conditions carefully and should only submit his tender if he considers himself eligible and he is in possession of all the documents required.

Information and instructions for tenderers posted on website shall form part of tender documents. The complete Tender Document can only be obtained online after registration of tenderer on the website <http://eprocure.gov.in/eprocure/app>.

Tender can only be submitted after uploading the mandatory scanned copy of documents such as Demand Draft or Pay Order or Banker's towards cost of Tender Documents and Tender Security (as prescribed in clause 1.1.1 of NIT).

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "**Online bidder Enrollment**" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My

Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been

completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
- 3) For any Technical queries related to Operation of the Central Public Procurement Portal Contact at :

Mobile Numbers: 91 8826246593

Telephone Numbers: The 24x7 Toll Free Telephonic Help Desk Number 1800 3070 2232.
Other Tel: 0120-4200462, 0120 4001002

Email Id: cPPP-nic@nic.in

SECTION 2
SCOPE OF WORK

The contractor will execute the work i.e. **“Manpower contract for Operation & maintenance of Electrical & Mechanical system installed at Sultanpur Depot of DMRC”**

1.1 The work shall be carried out as per the BOQ at **Sultanpur Depot** of Delhi Metro Rail Corporation.

2.2 Complete Daily Operation & Checks of Electrical and Mechanical System at Sultanpur Depot of DMRC , i/e preventive maintenance and attending breakdown maintenance as detailed below :-

2.2 (a) Daily Preventive Checklist

Asset/Equipment	Activity
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 cleanse 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.	
Ceiling/Bracket/Exhaust 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/Socket	Morning shift
	Visual check of cable for any sign of overheating, chattering, burning smell etc.
	Evening Shift
	Check relay status, reset if it is trip .
	record voltage, current, pf etc reading from panel
	Night shift
	cleaning of panels
Check for any loose connection, tight the same if any,	
Split AC/ Ductable AC	Morning shift
	Take room temp. reading
	Check fault status at remote
	Check for any abnormal sound
	Check for air leakage and duct damaged (Ductable A/C)
Ensure recycling operation of A/Cs.	

	Check of temperature sensor unit for cut off and ON
	Evening Shift
	Take room temp. reading
	Check for cleanliness and any abnormal sound
	Check of temperature sensor unit for cut off and ON
	Check A/C grills, clean it if dirty
	Night shift
	Take room temp. reading
	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	
Pumps	Morning shift
	Check for all suction and discharge valves are open.
	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
	Devices- check for dirty devices and clean it.
	EVENING SHIFT- Visual examination of the battery condition and its electrical connections feeding the system, rectify the same if found faulty
	NIGHT SHIFT- Rectification of troubles.
Gas Flooding System	Morning Shift- Gas pressure in pipeline to be checked & maintained.
fire hydrants & Fire Extinguishers	Morning shift
	Check system pressure of hydrant line

	<p>Evening Shift -</p> <p>Check for all isolating valves are open</p> <p>Night Shift -</p> <p>Check for physical condition of hose reel/ hose pipes, nozzle, connectors etc</p>
Light	<p>Morning shift-</p> <p>check the on/Off status of all lights, if any found in non-working condition, get it illuminate by replacing/repair the light</p>
General	<p>Morning shift</p> <p>Co-ordination with all facilitation & technical rooms for proper working of system</p> <p>Frequent rounds to site to check the operation & healthiness of equipments</p> <p>Supervision & overview of site day to day operation & overcome to general complaint</p> <p>Maintain log books, check sheets, various registers etc properly.</p> <p>Check the ON/OFF condition of pole lights/ depot lights as per lighting requirement of DMRC</p> <p>Check for any humming & chattering noise</p> <p>Check for any foul and burning smell</p> <p>Check for any tripping & if found reset the same after checking the proper cause.</p> <p>Check the relay status</p> <p>Check & record the load on panels</p> <p>Evening Shift</p> <p>Take all necessary energy meter readings of panel</p> <p>Take & record temp. of technical rooms</p> <p>Co-ordination with all facilitation & technical rooms for proper working of system</p> <p>Frequent rounds to site to check the operation & healthiness of equipments</p> <p>Supervision & overview of site day to day operation & overcome to general complaint</p> <p>Maintain log books, check sheets, various registers etc properly.</p> <p>Check the ON/OFF condition of pole lights/ depot lights as per lighting requirement of DMRC</p> <p>Check for any humming & chattering noise</p> <p>Check for any foul and burning smell</p> <p>Check for any tripping & if found reset the same after checking the proper cause.</p> <p>Check the relay status</p> <p>Check & record the load on panels</p> <p>Night shift</p> <p>Exterior cleaning & dusting of equipments</p> <p>lighting of all exterior depot lighting</p> <p>Co-ordination with all facilitation & technical rooms for proper working of system</p> <p>Frequent rounds to site to check the operation & healthiness of equipments</p> <p>Supervision & overview of site day to day operation & overcome to general complaint</p>

	Maintain log books, check sheets, various registers etc properly.
	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 (b) Equipment/System wise Preventive Checklist

Asset/Equipment	Frequency	Activity
DG	Weekly	LUBRICATION- Check engine oil level.
		FUEL SYSTEM- Drain sediments from fuel tanks.
		AIR SYSTEM - Check pre-cleance 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.
		Check battery status and maintain properly.
		No load testing
Ceiling/Bracket/Exhaust Fan	Monthly	Check for abnormal sound and vibration
		Measure current and voltage.
		Clean & tightened the connections.
		Visual check for any corrosion and damage.
Panel/Control panel/DB/Socket	Half yearly	cleaning of panels
		Check for any loose connection, tight the same if any,
		Visual check of cable for any sign of overheating
		Clean the contacts of contactors.
		Functioning of switches, relays breakers.
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

		Check and clean the drains
		Check for Any Overheating mark.
		Wash the cooling coil if required.
		Outdoor unit maintenance.
		Measure current and voltage.
		Check and Tight the nut bolts of indoor and outdoor units.
		Check for proper working of MCB and RCCB
		Tight the electrical connections
		Measure the grill temp.
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
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
Yearly	Check integrity of electrical insulation.	
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 in charge
		Junction box Tightening of connections
		Cleaning of junction boxes
		Continuity checked
Gas Flooding System	Weekly	Gas pressure in pipeline to be checked & maintained.
fire hydrants & Fire Extinguishers	Monthly	Check for physical condition of nozzle, connectors etc
		Check pressure and expiry date of all portable fire extinguishers.
		Check system pressure of hydrant line and record
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 (c) Breakdown Maintenance:-

Equipment	Key Activity.
Panel/ Control Panels	1, Minor 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 if possible.
Lighting	1. Minor rectifications I.e. correcting loose connections if any 2. Replacement of faulty choke/ tube/ fixture etc.
Circuit breaker	1, Minor rectifications I.e. correcting loose connections if any 2. Replacement of faulty ACBs & other breakers in the DB
Split ACs	1. Minor rectifications I.e. correcting loose connections if any 2. Replacement of fuse/ capacitor, control card etc.
DG	1, Minor rectifications I.e. correcting loose connections if any

2.3 Other activities to be carried out

- i) Contractor shall carry out all in-house preventive checks for equipments in scope not covered above and are important for system healthiness.
- ii) Replacement of any other faulty component, which can be replaced/repared in-house. (the decision of in-house replacement shall be of DMRC and bound to contractor).
- iii) Contractor shall prepare the equipment wise monthly failure report and submit the same to DMRC at 7th date of every month.
- iv) Any released faulty equipment/component shall be property of DMRC.
- v) Any spare material and consumable required for maintenance shall be provided by DMRC.
- vi) Any failure shall immediately be reported to DMRC engineer through e-mail.
- vii) 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.

3.0. Time schedule to attend the failure

3.1	Response Time (Non Critical Complains)	12 hrs
3.2	Response Time (Critical Complains)	04 hrs

4 Manpower deployment

- 4.1 The contractor shall deploy the manpower in consultation with Engineer in-charge and carry out the activities in hygienic manner.
- 4.2 The manpower can also be deployed during OFF days/holidays/night hours as per site requirements for which nothing shall be paid extra.
- 4.3 All the work associated with finishing complete in all respect shall be carried out by contractor for which nothing shall be paid extra.
- 4.0 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.

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 BOQ.
 - b. The rate quoted by the tenderer shall be inclusive of all duties, taxes, fees, octroi and other levies, materials, labor to & fro transportation of material and labour charges etc. Service Tax, however shall be shown separately in the BOQ.

3.1.2 Schedule of Payment

- a. Payment shall be made by running bills as per accepted rates on bi-monthly basis after submission of bill along with the individual ESI, PF, UAN Number, bank salary transfer of individual employee duly verified from the DMRC in charge.
- b. Payment shall be subjected to deduction of all T.D.S as per applicable law.
- c. Contractor must submit supporting documents for payment of EPF of all workers with individual name and EPF number electronically.
- d. Contractor will submit corroborated documents of minimum wages like bank transfer with individual name of each worker before releasing payments to contractors.