DELHI METRO RAIL CORPORATION LTD.
(A Joint Venture of Govt. of India & Govt. of NCT, Delhi)

"Manpower Contract for Operation & Maintenance of Building Electrical and Mechanical System at DMRC Airport Line".

TENDER DOCUMENT

VOLUME-I

* NOTICE INVITING TENDER
* SCOPE OF WORK
* COMPLIANCE TO STATUTORY PROVISIONS AND LABOUR LAWS
* TENDER PRICES AND SCHEDULE OF PAYMENT
* INFORMATION AND INSTRUCTIONS FOR "ON LINE BID SUBMISSION"
SECTION 1
NOTICE INVITING TENDER (e-TENDER)

1.1 GENERAL
Delhi Metro Rail Corporation (DMRC) Ltd invites 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 Building Electrical and Mechanical System at DMRC Airport Line".

1.1.1 The details of the Tender are as per following:

<table>
<thead>
<tr>
<th>Approximate cost of work</th>
<th>Rs. 2,15,12,882.00 (inclusive of all taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender Security amount</td>
<td>Rs. 2,15,129.00</td>
</tr>
<tr>
<td>Cost of Tender (Non-Refundable)</td>
<td>Rs. 21,000.00 (Rs.20,000/- plus 5% VAT) Non-Refundable.</td>
</tr>
<tr>
<td>Completion period of the Work</td>
<td>12 months</td>
</tr>
<tr>
<td>Tender documents on sale</td>
<td>From 29.10.16 to 23.11.16 (up to 17:00 hrs) on e-tendering website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a></td>
</tr>
<tr>
<td>Pre-bid Meeting</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Last date of Seeking Clarification</td>
<td>17.11.16 up to 11:00 hrs. (Queries from bidders after due date shall not be acknowledged)</td>
</tr>
<tr>
<td>Last date of Issuing Addendum / Corrigendum</td>
<td>24.11.16 up to 12:00 hrs.</td>
</tr>
<tr>
<td>Last Date &amp; time of Submission of Tender Online</td>
<td>23.11.16 up to 17:00 hrs.</td>
</tr>
<tr>
<td>Date &amp; time of opening of Technical Bid Online</td>
<td>24.11.16 at 12:00 hrs.</td>
</tr>
<tr>
<td>Date &amp; time of opening of Financial Bid Online</td>
<td>Shall be informed after evaluation of technical bid through website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a></td>
</tr>
<tr>
<td>Authority and place for submission of tender cost, tender security, required documents (if any), seeking clarifications etc.</td>
<td>Deputy General Manager/E&amp;M/UG, Delhi Metro Rail Corporation Ltd. 2nd Floor, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi -110001.</td>
</tr>
</tbody>
</table>

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.

The same should be submitted in original up to before two hours of opening of technical bid in the office of DGM/E & M/UG at the above mentioned address.

NOTE: The bidder who fails to submit the tender cost & tender security (in original) within stipulated scheduled deemed to be rejected.
1.2 MINIMUM ELIGIBILITY CRITERIA:

1.2.1 Work Experiences

1.2.2 Work Experiences -

a) This tender is open to contractors who have done the Similar Nature of Work as mentioned below in Para 1.2.2 (c) in last 5 years.

b) The contractor having completed one single work of similar nature of at least 80% of estimated value of contract or two similar works, each of at least 50% of estimated value of contract or three similar works, each of at least 40% of estimated value of contract in Govt. / Semi Govt. / Autonomous bodies/ PSU/ Private Metro Railway Organization during last 5 years March-2016.

c) Similar Nature of Work: Works related to Operation & Maintenance OR Maintenance OR STC of BEMS (Building Electrical and Mechanical System). Experience should include work on any one or more equipments like LT panel, DG sets, UPS, Motors, RO plants, Chiller, AHUs, FCUs, Cooling Towers, Centrifugal pumps and Jet fans.

NOTE:

1. Successfully completed portion of ongoing works shall also be considered for qualifying the eligibility 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 along with completion certificate issued by the client preferably on their letter head for quantum of work executed for work under progress.

1.2.3 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) Applicant must have Self-attested copies of VAT / Service Tax registration certificate & valid PAN No.

c) Applicant must not have been blacklisted or deregistered by any Govt. or public sector undertaking during last five years. Undertaking of the same should be given on non-judicial stamp paper of Rs. 10/- duly attested by Notary, in the format enclosed in Annexure –D (Page No.-35 of ITT).

1.2.4 Net worth of applicants for last three audited financial years 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 head. 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 subjected to the data as required for consideration of tender prescribed in the ITT.

1.2.5 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.
1.2.6 Tender document consists of the following documents:

VOLUME-I
a. Notice Inviting Tender.
b. Scope of Work.
d. Tender Prices and Schedule of Payment.
e. Information and Instruction for "Online Bid Submission".

VOLUME-II
a. Instructions to Tenderers.
b. Format of forms.
c. General Condition of Contract (GCC).
d. Special Conditions of Contract (SCC).
e. Other Terms and Conditions.
f. Contents of BOQ.

1.2.7 The contract shall be governed by the documents listed in Para 1.2.6 above.

The bidders may obtain further information / clarification, if any, in respect of these tender documents from the office of Deputy General Manager/E&M/UG, Delhi Metro Rail corporation Ltd. 2nd Floor, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi -110001.

1.3 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.

1.4 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.

1.5 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.

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

1.7 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.

1.8 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.

1.9 Tenderers are advised to visit the site of work before offering their rates.

1.10 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.
1.11 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, Barakhambo Road,
New Delhi -110001.
SECTION 2

SCOPE OF WORK

2.1 Brief Scope

The contractor will supply manpower of various categories to execute the work “Manpower Contract for Operation & Maintenance of Building Electrical and Mechanical System at DMRC Airport Line.”

2.1.1 The scope of work includes the following:

2.1.1.1 Operational Activities: Daily operation of Building Electrical and Mechanical System (BEMS) equipments at DMRC Airport Line Stations viz, NDRU, SJSU, TVB, DKV, DACY, APOT, DSTO & D-21 Depot Building is to be executed by the manpower. Building Electrical & Mechanical Equipments and their tentative O&M schedule has been placed below (Annexure-1) and the same may vary depending upon the site conditions. All the data, information shall be recorded in all the three shifts in various log books/data sheets provided by DMRC and shall be communicated verbally as well as in writing to the next shift. The operational activities shall be divided in all the three shifts (Morning, evening & night) and manpower shall be deployed accordingly.

2.1.1.2 All BEMS equipments shall be started and stopped as per the schedules provided by DMRC and / or if so required.

2.1.1.3 To carry out visual inspection, cleaning, checking of all system equipments under scope.

2.1.1.4 Check general functioning of all the equipments, observe abnormal noise, vibration level etc.

2.1.1.5 Putting standby DG sets into operation in case of mains failure and changeover load accordingly.

2.1.1.6 Check and record all electrical parameters viz voltage, current, frequency, power factor, KWH, KVAH, on all panels as per site requirements in the format/log books available at the site.

2.1.1.7 Contractor’s Operation & Maintenance Engineer shall generate daily, weekly and monthly reports in consultation with DMRC site engineer on mutually agreed basis which may cover the energy consumption, monitoring of temperature, DG battery specific gravity, DG Oil consumption Report, relay settings and amperage readings for all the running equipments, grill temperature of all the AC units, AHU CFM measurements, daily fault logging etc.

2.1.1.8 The Operation & Maintenance Engineer shall be responsible for regular checking and cleaning of all Public area and Back of House area lighting fixtures, power sockets, pole lights, parking lights etc.

2.1.1.9 Apart from all these daily Operational activities, Operation & Maintenance Engineer shall arrange rectification of all station level faults with the help of operation team at the site in consultation with DMRC site engineer.

2.1.1.10 Any other work assigned time to time by DMRC site engineer as per site requirement like receiving material/spares from store, collecting materials/scrap/documents/reports from sites and sending it to head-office/Store etc.

2.1.2 Maintenance Activities: Complete Maintenance of all Building Electrical and Mechanical System (BEMS) equipments at DMRC Airport Line Stations viz. NDRU, SJSU, TVB, DKV, DACY, APOT, DSTO & D-21 Depot Building is to be executed by the manpower.
under supervision of Maintenance Supervisor and Operation & Maintenance Engineer. The overall supervision of the work will be done by DMRC site engineer / on duty DMRC technician. The maintenance activities shall include Electrical (Electrical Panels, Lighting, Distribution boards, DG, UPS etc.), Mechanical (Air-cooled Chillers, AHUs, FCUs, Cooling Towers, Chiller Pumps, Fire Pumps, Sewage/Seepage Pumps, RO plant with all accessories, Air-compressors, Hydro-pneumatic pumps, Station Transfer Pumps, Ventilation Fans including Fresh Air Fan, SEP, SPF, TEF, Duct work etc.), TVS (Tunnel Ventilation Fans with all associated dampers, TSF, TREF etc.), painting of pipelines & equipments, modification in existing system, commencement of any new project work as assigned by DMRC officials, attending breakdowns etc. Tentative Maintenance Schedule along with Nos. of equipments have been placed below as Annexure-1. The maintenance activities/schedules may vary as per site requirements.

2.1.3.1 Operation & Maintenance Engineer will prepare maintenance schedule for Electrical & Mechanical maintenance and depute manpower to carry out the maintenance work.

2.1.3.2 All the maintenance schedules will be carried out as per OEM guidelines provided by DMRC.

2.1.3.3 The Operation & Maintenance Engineer will prepare the maintenance report / maintenance summary as per the frequency of maintenance plan provided by DMRC.

2.1.3.4 Apart from regular maintenance activities, the Operation & Maintenance Engineer will plan for Tunnel Lights cleaning in co-ordination with DMRC site engineer.

2.1.3.5 The Operation & Maintenance Engineer shall deploy manpower for rectification of all critical faults on urgent priority.

2.1.4 Mock-drills: Apart from Operational and Maintenance activities, the Operation & Maintenance Engineer shall assist in carrying out Mock-drills as per schedule attached below. DMRC site engineer shall arrange power block and permit to work for mock-drills. The tentative schedule has been tabulated below as Annexure-2 and the same may vary time to time as per site requirements.

**LIST AND SCHEDULE OF MOCK DRILL**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Testing</th>
<th>Testing Time</th>
<th>No. of Stations</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fire pump testing</td>
<td>Night</td>
<td>7</td>
<td>Monthly</td>
</tr>
<tr>
<td>2.</td>
<td>Sprinkler testing</td>
<td>Night</td>
<td>5</td>
<td>Monthly</td>
</tr>
<tr>
<td>3.</td>
<td>DG Testing</td>
<td>Night</td>
<td>7</td>
<td>Monthly</td>
</tr>
<tr>
<td>4.</td>
<td>IBP Panel testing</td>
<td>Night</td>
<td>6</td>
<td>Monthly</td>
</tr>
<tr>
<td>5.</td>
<td>Escalator Flow Switch Testing</td>
<td>Night</td>
<td>6</td>
<td>Monthly</td>
</tr>
<tr>
<td>6.</td>
<td>Fire Alarm Testing</td>
<td>Night</td>
<td>7</td>
<td>Quarterly</td>
</tr>
<tr>
<td>7.</td>
<td>UPS Testing</td>
<td>Night</td>
<td>7</td>
<td>Monthly</td>
</tr>
<tr>
<td>8.</td>
<td>Tunnel Sump Pump Testing</td>
<td>Night</td>
<td>7</td>
<td>Monthly / Quarterly</td>
</tr>
<tr>
<td>9.</td>
<td>Station Sump Pump Testing</td>
<td>Day</td>
<td>7</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

Annexure-2
2.1.5 Tools and Pliers for Operation & Maintenance Activities:

2.1.5.1 All the tools, Pliers, measuring instruments etc. shall be arranged by the Contractor itself for Operation and Maintenance activities. Tools like line testers, digital multi-function meters, Temperature and Humidity meter, Psychrometer, TDS & pH Meter, Hydrometer, Cell Tester, Drill Machines, Air Blowers, Hand Torch, Tool Kit, etc. should be available at each site. Measuring Instruments like Insulation Resistance Tester, Anemometer, Vibration meter, Lux Level Meter, Sound Level Meter, Digital Earth Resistance Meter should be available at one of the seven sites. Any other Tool and Pliers, if required, shall be arranged by the Contractor on demand of DMRC site Engineer as per requirement of the work.

2.1.6 Safety of Personnel

2.1.6.1 The Contractor shall provide all Personal Protective Equipment (PPE) to its employees like Safety Shoes, Insulated Rubberized Hand Gloves, Gum Boot, high-visibility clothing e.g. Luminous Jacket, Safety Helmet, Fall Protection e.g. Safety Belts, Safety Goggles, Ear Plugs, Nose Mask etc. The Operation & Maintenance Engineer will ensure safety of all the working technical staff under his/her supervision. DMRC site engineer shall not allow any contractor staff working without proper PPE and uniform. In case of any undesired incident/accident at site due to not wearing proper PPE by Contractor staff, the concerned Contractor's Operation & Maintenance Engineer and Supervisor shall be held responsible and Contractor shall manage all the legal aspects of the accident as per Labour Law.

2.1.7 Consumables for Operation and Maintenance Activities

2.1.7.1 Contractor shall provide below mentioned Consumables (Annexure-3) required for Operation and Maintenance Activities at sites. In case, extra consumables are needed for completion of work, DMRC shall arrange the same and provide to Operation and Maintenance working teams.

**LIST OF CONSUMABLES**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Qty / Station</th>
<th>Unit</th>
<th>Qty required for 7 locations (All stations and Depot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electrical Insulation Tape</td>
<td>5</td>
<td>Nos.</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Teflon Tapes</td>
<td>2</td>
<td>Nos.</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Cable Ties (Small/Medium/Big)</td>
<td>1</td>
<td>Packet</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Nut-bolt with washers (M6,M8 &amp; M10 Sizes)</td>
<td>1</td>
<td>Kgs</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>M-seal</td>
<td>2</td>
<td>Packet</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>Rubber based Adhesive</td>
<td>2</td>
<td>Packet</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>Emery Paper - Assorted</td>
<td>7</td>
<td>Nos.</td>
<td>49</td>
</tr>
<tr>
<td>8</td>
<td>Brush (Small / Medium / Big)</td>
<td>2</td>
<td>Nos.</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>Cleaning soap for hand wash</td>
<td>4</td>
<td>Nos.</td>
<td>28</td>
</tr>
<tr>
<td>10</td>
<td>Rags / Dhoti</td>
<td>32</td>
<td>Mtrs</td>
<td>224</td>
</tr>
<tr>
<td>11</td>
<td>Multipurpose grease</td>
<td>1</td>
<td>Kgs</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>Colin Bottle</td>
<td>2</td>
<td>Nos.</td>
<td>14</td>
</tr>
<tr>
<td>13</td>
<td>WD 40 Cleaner</td>
<td>2</td>
<td>Nos.</td>
<td>14</td>
</tr>
<tr>
<td>14</td>
<td>CRC 2-26 Spray Bottle</td>
<td>2</td>
<td>Nos.</td>
<td>14</td>
</tr>
</tbody>
</table>
2.1.8 Office Establishment at Sites
2.1.8.1 The tenderer shall establish site office for its Operation & Maintenance Engineer to manage all reports & roster preparation activities: Storage of stationary items, Storage of Statutory compliance registers e.g. Muster roll, wage, overtime register etc. No stationary item shall be provided by DMRC. The contractor has to manage desktop / laptop / printer / internet connection / shift cell phones for all sites etc. itself for co-ordination with all sites. Nothing shall be paid extra to the contractor.

2.1.9 Qualification and Experience Criteria:

a. For Engineer: Should have Bachelor Degree in Electrical/Mechanical with 3 years experience in a reputed firm or Diploma in Electrical / Mechanical with 7 years work experience in a reputed firm.

b. For Supervisors: Should have
i) Passed Matriculation.
ii) Passed Diploma in Electrical/Mechanical Engg. With 2 years of experience in MEP (Mechanical, Electrical & Plumbing) division or
iii) Passed ITI in Electrician / Refrigeration trade with 5 years of experience in MEP division.

c. For Skilled Electrician / HVAC Operator: Should have
i) Passed Matriculation.
ii) Passed ITI in Electrician / Refrigeration Trade.
iii) 3 years experience in MEP division with a reputed firm.

d. For Semi-skilled Electrician / HVAC Operator: Should have
i) Passed Matriculation.
ii) 3 years experience in MEP division with a reputed firm.

2.1.10 Recruitment of Manpower
2.1.10.1 The successful Tenderer shall deploy manpower for the said work after taking prior approval from DMRC Engineer In-Charge. Contractor shall take prior approval from DMRC Engineer In-Charge for transfer/replacement of staff.
THE REPORTING CHANNEL FOR BEMS O&M ACTIVITIES

DMRC Site Engineer

Contractor's Operation & Maintenance Engineer

Operation Supervisor

Skilled Technician

Semi-Skilled Technician

Maintenance Supervisor

Skilled Technician

Semi-Skilled Technician

Annexure - 1
### BUILDING ELECTRICAL & MECHANICAL SYSTEM EQUIPMENTS AND THEIR O&M SCHEDULE

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Equipment</th>
<th>Nos.</th>
<th>Unit</th>
<th>Operation</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AHU (Ceiling Suspended)</td>
<td>126</td>
<td>Nos.</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>AHU (Floor Mounted)</td>
<td>58</td>
<td>Nos.</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Fan Coil Units</td>
<td>215</td>
<td>Nos.</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>Cooling Towers</td>
<td>17</td>
<td>Nos.</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Air-Cooled Chillers</td>
<td>02</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>6</td>
<td>Water Cooled Chillers</td>
<td>17</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>7</td>
<td>All HVAC Water Pumps</td>
<td>65</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>8</td>
<td>Split / Window / Ductable / Packaged / Cassette ACs &amp; VRVs</td>
<td>140</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>9</td>
<td>Air-Compressors</td>
<td>14</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>10</td>
<td>DG Sets</td>
<td>13</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>11</td>
<td>UPS</td>
<td>32</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>12</td>
<td>Panel / Control Panels/DB's</td>
<td>993</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>13</td>
<td>UPS</td>
<td>32</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>14</td>
<td>Air Washer</td>
<td>02</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>15</td>
<td>TVF / TSF / TREF</td>
<td>67</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>16</td>
<td>Tunnel Ventilation Dampers / Actuators</td>
<td>198</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>18</td>
<td>VENTILATION FANS / SEF / SPF</td>
<td>516</td>
<td>Nos.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>19</td>
<td>Earthing Work</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>20</td>
<td>Duct work &amp; ECS system</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>21</td>
<td>Seepage Pumps</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>22</td>
<td>Sewage Pumps</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>23</td>
<td>Fire Hydraulics</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>24</td>
<td>Hydro Pneumatic Pumps</td>
<td>7</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>25</td>
<td>CO2 Gas Flooding &amp; Inergen Gas Suppression System</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>26</td>
<td>RO Plant &amp; its associated pumps</td>
<td>7</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>27</td>
<td>Station Lights / Pole Lights &amp; Power Sockets</td>
<td>7</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>28</td>
<td>Tunnel / Via duct Lights &amp; Power Sockets &amp; Associated Tunnels</td>
<td>8</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>29</td>
<td>Lifts &amp; Escalators</td>
<td>6</td>
<td>Stations</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>


### Operation & Maintenance Checklist:
Operation checklist as well as Fortnightly, Monthly, Quarterly, Half Yearly and Yearly checklists shall be provided by DMRC at the time of Equipment Maintenance. Maintenance of Equipments shall be carried out as per OEM guidelines.
SECTION 3
COMPLIANCE TO STATUTORY PROVISIONS AND LABOUR LAWS

3.1 Compliance to Labour Law

3.1.1 As the contract is Manpower Contract which involves Skilled and Semi-skilled manpower governed by various labour laws, therefore, the Contractor shall be responsible to comply all the applicable rules/regulations/guidelines of Contract Labour (Regulation & Abolition) Act - 1970, Building and Other Construction Worker's (Regulation of Employment and Conditions of Service) Act-1996, Child Labour Act – 1986, Minimum Wage Act-1948 with all its amendments, ESI Act-1948 with all its amendments, EPF Act-1952 with all its amendments, Payment of Bonus Act-1965 and Bonus (Amendment) Act-2015 etc.

3.1.2 The Contractor shall own valid Labour License issued from Ministry of Labour & Employment, Govt. of India.

3.1.3 The Contractor should have valid Certificate of Registration under Building and Other Construction Worker's (Regulation of Employment and Conditions of Service) Act, 1996.

3.1.4 The Contractor shall provide all basic amenities like drinking water etc. to its workmen at working site as per applicable Labour Laws.

3.1.5 The Contractor shall maintain all the statutory registers governed by Contract Labour (Regulation & Abolition) Act – 1970 at DMRC sites and produce it to DMRC competent authority or any other external agency regulated by State/Central Govt. if required.

3.2 Compliance to Statutory Provisions

3.2.1 Contractor shall comply all Statutory Provisions like ESI, EPF, Bonus, and Minimum Wages to its workmen as per applicable Acts/Rules/Amendments/Guidelines issued through Govt. orders / circulars etc.

3.2.2 Any escalation in Minimum Wages due to revision of wages, revision of VDA along with all statutory liabilities like ESI & EPF shall be compensated by DMRC for Minimum Wage category manpower of the contract.

3.2.3 Any revision in Bonus under The Payment of Bonus Act-1965 and The Payment of Bonus (Amendment) Act-2015 shall be compensated by DMRC for Minimum Wage category manpower of the contract.
SECTION 4
TENDER PRICES, TAXATION, SCHEDULE OF PAYMENT & DEDUCTION CRITERIA

4.1 Tender Prices & Taxation

4.1.1 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 made 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, fees, octroi and other levies. However Service Tax shall be shown separately in the BOQ. Any change in Service tax rates shall be compensated/recovered by DMRC on submission of documentary support.

c. After implementation of Goods and Service Tax (GST), the GST shall be considered in place of service tax. Any change/escalation in GST rates shall be compensated by DMRC.

4.1.2 Schedule of Payment

a. No Advance of any kind shall be given by DMRC to the contractor for the said work.

b. Payment shall be made through running bills as per accepted rates on bi-monthly basis after submission of:

- Payment Invoices. Service Tax, Krishi Kalyan Cess and Swachchha Bharat Cess shall be shown separately in the invoice.

- Statutory Compliance documents (Annexure-4).

- Monthly/Quarterly Preventive Maintenance Reports jointly signed by the contractor and DMRC Engineer in charge.

- Monthly Attendance Sheets duly verified by concerned Station In-charge.

c. Taxes shall be governed by existing Tax laws and payment shall be released subjected to deduction of all T.D.S as per applicable laws.

d. No Overtime payment shall be given DMRC. If Contractor allows overtime working for its workmen, all cost shall be borne by Contractor itself.

e. If monthly mandays calculated on month end in attendance sheet comes more than the approved mandays, Contractor shall bear the cost of additional mandays of its workmen. DMRC shall not pay for additional mandays other than approved mandays in the contract.

f. If monthly mandays calculated on month end in attendance sheet comes less than the approved mandays, deduction shall be made from RA bill in proportion to shortage of manpower.

g. Contractor’s profit shall be paid only on Monthly wages (Minimum wage x 26 days), ESI & EPF heads of Minimum Wage category manpower. No Contractor profit shall be paid on Bonus, Uniform and PPE heads mentioned in BOQ.

h. Payment of variation amount due to Implementation of GST, revision in Service Tax, Minimum Wages, and Bonus etc. shall be made on half yearly basis. Contractor’s profit shall be paid only on ESI and EPF of variation amount of minimum wages.
STATUTORY COMPLIANCE DOCUMENTS

- Insurance policies as per GCC.
- Challans for EPF related period of payment.
- Challans for ESI related period of payment.
- Certificate for compliance of ESI.
- Certificate for compliance of EPF.
- Declaration regarding Service and DVAT for deposit the same with Govt. Treasury (Annexure-E of IIT, Page No. - 36)
- Proof of disbursement of wages to staff.
- Electronic Challan cum Return Receipt (ECR) as proof of PF Payment to eligible employees.
- EER as proof of ESI Payment to eligible employees.
- Group Insurance policy documents for Supervisors and Engineers.
- Salary Slips to individual employee.
### 4.1.3 Deduction Criteria

Deduction from running bills shall take place as per the conditions tabulated below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Deduction on account of Shortage of Manpower (a)</th>
<th>Deduction on account of non-completion of Planned Preventive Maintenance per quarter (b)</th>
<th>Deduction on account of unavailability of Tools &amp; Pliers per quarter (c)</th>
<th>Deduction on account of Damage to system / equipment (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deduction shall be made in proportion to shortage of manpower</td>
<td>If, ≥ 80 % of planned Preventive Maintenance</td>
<td>No Deduction</td>
<td>In case of damage to any system / equipment caused by Contractor on account of mishandling, an amount equal to actual cost of the equipment shall be deducted from RA Bill.</td>
</tr>
<tr>
<td></td>
<td>≥ 60% but &lt; 80%</td>
<td>≥ 60% but &lt; 80%</td>
<td>0.1 % of total RA Bill per site</td>
<td>0.05 % of RA Bill per site shall be deducted if Tools and Pliers are not available at any site.</td>
</tr>
<tr>
<td></td>
<td>&lt; 60%</td>
<td>&lt; 60%</td>
<td>0.2 % of total RA Bill per site</td>
<td></td>
</tr>
</tbody>
</table>

#### S.No. Deduction on account of non-payment of Bonus

2. As DMRC is paying Bonus and is committed to pay the variation amount if any revision takes place as per Bonus (Amendment) Act-2015, hence, the contract shall be liable to pay bonus to all the eligible employees and produce proof of disbursement of Bonus. In case of non-submission of proof, DMRC shall have right to deduct Bonus amount paid to the contractor from the last RA bill.

#### S.No. Deduction on account of staff absconding from duty or sleeping during duty.

3. If any contractor staff/staffs is/are found absconding or sleeping in duty during any shift, concerned contractor supervisor and Engineer In-charge shall be held responsible and their one day wage shall be deducted from the next RA bill.

**Note:** For S.No.-1(b), suitable reasons for non-completion of planned maintenance shall be recorded by Contractor and put before DMRC Engineer In-charge. If the reasons recorded are found factual, no deduction shall be made.

*#Total deduction for a complete contract year shall not exceed 10 % of total awarded contract value.*
SECTION 5

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 / eMudra 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 / DWG/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 coloured ( 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: ccpp-nic@nic.in