

## NOTICE INVITING TENDER

Tender No.: SCOPE Minar/MMO/25-26/037

Dated:02.06.2025

Sub.: <u>Annual Maintenance Contract for Pumps, Pipes, Fire Fighting Systems at SCOPE Minar, Laxmi Nagar, Delhi-92.</u>

 On line e-tenders are invited by General Manager (Tech. & HR), SCOPE on behalf of Constituents of SCOPE Minar, Laxmi Nagar, Delhi- 110092 for the work as per the details given below.

1.1 Name of the work

Annual maintenance contract for Pumps, Pipes,

Fire fighting system at SCOPE Minar, Laxmi

Nagar, Delhi-92.

1.2 Estimated Cost

: Rs. 59,50,997/- per Annum plus GST@18%.

1.3 Earnest Money

: Rs. 1,41,000/-

1.4 Tender Processing Fee

: Rs. 5,266./-

1.5 Duration of Contract

2 Years from the date of issuance of LOI.

1.6 Cost of Tender

Rs. 1,120/-

1.7 Commencement of downloading of E-Bid:

06.06.2025 from 10:00 AM

1.8 Last date of downloading E-Bid

23.06.2025 at 3:00 PM

1.9 Last date of E-Bid submission

23.06.2025 at 3:00 PM

2.0 Last date of submission of

Form of tender, EMD & Tender Fee:

23.06.2025 at 3:00 PM

2.1 Tender opening date & time (Technical):

23.06.2025 at 3:30 PM

2.2 Tender opening date & time (Financial): To be intimated later

2. Bidders have to download the bid documents from the e-procurement portal i.e https://scope.ewizard.in after registering themselves on portal and submit e-bids after payment of Bid processing Fee & Bid documents fee before last date & time of downloading E-Bid online (For tendering support:-9355030607, 9355030630). Bidder can also view the E-NIT, SCOPE of work on <a href="https://www.scopeonline.in">www.scopeonline.in</a>.

3. Bids shall be submitted through e-bidding mode only. No other mode of Bid submission shall be accepted.

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- 4. Tender document shall be accepted only to reputed, specialized Contractors working with CPWD/PWD/MES/Railway/PSUs/Autonomous Bodies/SCOPE who fulfills following prequalification criteria & showing original document in this regard:
  - 4.1 Experience of having successfully completed works during the last 5 years ending last day of the month previous to the one in which applications are invited:

Three similar completed works, each costing not less than the amount equal to 40% of estimated cost put to tender in the last five years.

OR

Two similar completed works, each costing not less than the amount equal to 60% of the estimated cost put to tender in the last five years.

OR

One similar completed work of aggregate cost not less than the amount equal to 80% of the estimated cost put to tender in the last five years.

Similar works means operation, maintenance & handling of Pumps & Pump house, pipelines and Firefighting system of high-rise building.

The past experience should be supported by certificates issued by Client's organization.

- 4.2 The Tenderer must be registered under Provident fund; ESI, GST & income tax act and PAN no. Copies of registration papers along with details need to be furnished. Latest ESI & PF deposit with Challan authority is also needed.
- 4.3 Copies of income tax return and balance sheet for last 3 years to be submitted. Average annual turnover of similar works should be at least 1.5 times of the estimated cost during the immediate last 3 consecutive financial years.
- 4.4 All the above certificate/ documents shall be submitted by the firm duly signed & self attested subject to verification with original documents.
- 5. The tender cost (Form fee), Earnest Money Deposit (EMD), and tender processing fee (TPF) must be paid by the bidder through online payment mode only, as provided on the e-tendering portal, i.e. https://scope.ewizard.in. In case the bidder fails to technically qualify as per eligibility criteria of the tender or is not the lowest (L1) bidder, the EMD amount will be refunded to the bidder's account details as provided on the bidder enrollment registration page of SCOPE e-tendering portal: https://scope.ewizard.in.
- 6. The tender shall be submitted through only E-Portal https://scope.ewizard.in
- 7. The bidder shall furnish an affidavit affirming that the firm/agency has neither been blacklisted and debarred and nor their services have been banned or suspended due to any reason including corrupt and fraudulent practices in the past by any Govt. department/ Institutions/Local bodies/Municipalities/ Public sector Undertaking/ Autonomous bodies etc. and there is no any vigilance/ CBI case pending against the firm/agency.
- 8. Tenders are invited to submit their offers strictly based on the layout, design parameters, Specific requirements, terms & conditions and specifications and instruction to bidder given in the tender document.



- The agencies are advised to visit the site before quoting their rates in the tender.
- 10. Pre-Bid meeting shall be held at 16.06.2025 PM on 3:30 PM if required.
- 11. SCOPE reserves the right to reject any or all tenders without assigning any reasons.

GENERAL MANAGER (Tech. & HR)

### SCOPE OF WORK

1) The scope of work shall include Operation & Maintenance of GI & MS Pipelines of the building, Fire Fighting & Detection System and Operation & Maintenance of water supply pumps in pump house and drainage pumps in sump chambers and Bore well pumps (as detailed in Technical Specifications) and shall include the deployment of duly qualified skilled manpower with all necessary tools & tackles and day-to-day Operation & Maintenance of the complete system. The manpower shall be deployed in three shifts to operate the pumps round the clock i.e. from 6.00 AM to 6.00 AM. The tenderer shall note that he has to Operate and maintain 23 nos. pumps in pump house, 10 nos. are in sump chambers and 3 nos. bore wells are located out side the building to cater ground water to under ground water tanks. Each system i.e. Domestic water system, flushing water system, fire fighting systems etc. have Jockey pumps & standby pumps, alternately each pump should be run to cater water supply to different networks so that each pump can be checked and kept in running condition However, the regular maintenance shall be carried out for all the systems mentioned in the scope of work.

The tenderer shall depute adequate no. of supervisors, technicians, operators skilled and semi-skilled to take overall responsibility of satisfactory O&M services at various levels of operation as per requirement and as mentioned at SI. No. 17 Deployment of Manpower. In addition to regular O&M staff, the tenderer shall also arrange to depute any manpower / expert service for carrying out any job not specifically mentioned but necessary to carry out overall O&M function without any price implication.

- 2) Maintenance of all fire extinguisher including cost of supply of accessories i.e horns, wheel, washer, high pressure tube, safety pin etc.
- 3) Repair & Maintenance of GI & MS pipelines network running throughout the building in each core and bore well pumps. Excluding down pipes from over head tanks to toilets, pantries and AHU's & insulated pipelines of HVAC system. Scope of work includes the cost of M.S flanges, Nut & Bolts, Required fittings, other consumables i.e. Welding electrodes, oxygen & Acetylene cylinders etc and.
- 4) Testing / calibration of various mounted meters as & when required or directed by SCOPE.
- 5) Attending break downs, failures & faults in the equipment /system, replacement/repair etc and restoration of systems with in the shortest possible time.
- 6) Repairing of faulty items as & when required.
- 7) Procurement & Supply of spares in time so that operation and maintenance is not held-up for want of spares
- 8) Preventive Maintenance of equipment including planning, drawing-up Preventive Maintenance / Periodical Maintenance schedules etc. This would include all checks/works, servicing/overhauling as per manufacture's manuals as available with Engineer-In-Charge.

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- Co-ordination with other agencies operating at site, statutory authorities etc. for carrying out the work including arrangement for shut-down's etc.
- The contractor shall Maintain log book / registers records the various Maintenance Checks being carried out daily, weekly, monthly, half yearly, and get certificates of the Engineer in Charge of having carried out the checks.
- Any other work required for efficient O&M of the systems which is not mentioned above or as directed by the Engineer.
- The scope of work also comprises inspection, checking, reconditioning, repairing of parts if any and conducting performance testing of system.

# 13) MINIMUM FREQUENCY FOR MAINTENANCE CHECKS

For efficient operation & Maintenance of the systems the minimum frequency for attending to the various activities (List is, however, not exhaustive) is given below:-

## 13.1 ROUTINE CHECKS

- a) Check fire pumps to develop required pressure ( to be run daily) and automatic operation of pumps is to be checked through by pass pipe arrangement with concurrence of Officer – In – Charge.
- b) Check periodicity of operation of jockey pumps. Checking battery voltage for diesel engine and control panels.
- c) Checking all valves for their smooth operation and maintaining the same for effective and leak proof working.
- d) Checking smoke / heat detectors through the test button in the indicator panels every day and once in a month by creating artificial heat / smoke in one place.
- e) Checking operation of all alarms / sounders
- f) Visual check of main / zonal control panels.
- g) Checking healthiness of circuits and rectifying the fault if any exists.
- h) Checking the operation of response indicator and carrying out required rectification.
- i) Check fire hydrant accessories located in different cores and floors and rectify as required.
- j) Check and note the reading of pressure gauge located in pump house for hydrant pumps and sprinkler pumps.
- k) Check and note the reading of pressure gauges installed in sprinkler lines and hydrant lines at different cores and floors.
- I) Check and adjust the pressure switches located in pump house.
- m) Checking of water pressure at terrace level for hydrant and sprinkler and purging of air if required.
- n) Checking and replacing defective items / component like relay, fuse, single phase preventer, indicating lights, switch and burnt wire.

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- o) Checking the whole pipe network with all accessories for any for leakage and rectifying the same.
- p) Check the charging of battery installed in diesel pump for hydrant specific gravity of electrolyte and its level and charge if required.
- q) Checks all NRVs located in fire fighting lines and take necessary action if any.
- r) Run the diesel pump set for 5 minutes every week and observe its deficiency and to take necessary action if any.
- s) Change the old oil, oil filter, diesel filter and air filter with new.
- t) Checking pumps for healthiness of the gland / mechanical seal ,bearing , motor ,impeller if any thing found abnormal the same is to be set right.
- u) Checking and rectifying all safety control of the system. Any other work required and assigned by OIC time to time for proper O & M.
- v) Keeping the whole fire system neat, clean and in operative condition is the responsibility of contractor.
- w) Contractor will carry out routine maintenance on electrics of whole fire system.
- x) The change in the quality of existing fire trace tube is to be checked as and when required.
- 13.2 PERIODICALLY CHECKS TO BE EXERCISED BY THE AGENCY:

### 13.2.1 DAILY CHECKS:-

- The agency shall carry out checking for over heating/abnormalities of bearings terminals connection, cables of all motors, starters, panels etc. and to take necessary action if any.
- 2. Checking of water level and ensure undisturbed water supply to entire building.
- All the valves at the pipe network in pump house and in sump chambers are open except those of the stand by equipment.
- 4. Check condition of flexible coupling / greasing of bearings and vibration of pumps.
- 5. Check functioning / repair of water level indicators.
- 6. The supply of voltage is within permissible limits for operation of all the equipment.
- Daily operation of pumps as per the requirements of MMO and the instruction of Officer Incharge. The agency shall interact with operator of Building Automation System designed and installed for automatic operation of pumps.
- 8. The agency shall maintain log book for running of pumps and water levels daily reading in different tanks / sumps.
- 9. Check pump discharge pressure.
- The agency shall carry out any other work required for proper functioning of the system and instructions of Officer In-charge.
- 11. Any other work related to water supply and drainage pumps specified by Officer In-charge.



- 12. Any other work required for proper O & M.
- Checking and replacement of defective items / component like relay , fuse , single phase preventer indicating lights , switch and burnt wire etc.

## 13.2.2 WEEKLY CHECKS:-

- Checking of alignment and to rectify/ repair if required, and also tightening of nuts & bolts of mechanical equipment.
- 2. Checking of pump gland/seal for leakage and to take necessary action if required.
- 3. Checking of leakages and operation of all valves and to rectify if required
- Check oil ring / oil level for all lubricated bearings.
- 5. Check rated current, actual current drawn and record the same.
- 6. Inspection of control valves for leakage and proper functioning.
- 7. Check overheating of the motor
- 8. Check the bearing temperature by hand.
- 9. Check any undue noise or vibration.
- Run the diesel pump set for 5 minutes every week and observe its deficiency and to take necessary action if any.

#### 13.2.3 MONTHLY CHECKS:-

- 1. Check glands, adjust as necessary.
- 2. Check mechanical seals for any leakage.
- Check the security of all keeps and fasteners.
- 4. Check voltage at terminals.
- 5. Check foot valves installed in tanks for proper functioning.
- 6. The agency shall carry out cleaning of pump house , sump & bore well pumps including motors , starters , pumps , panels , pipe racks etc.
- 7. Checking of all Safety Control, operation and also the set points of all controls.
- 8. Checking and cleaning of contract points in starters.
- Checking of gland/seal, coupling of pumps, sumps, piping and general area, check sound and level of vibration, motor temperature, operation of the motor, drive shaft.
- Greasing of all pumps and motors and other rotary equipment and replacement of bearings if unserviceable.
- 11. Any other work specified by Officer In-charge.
- 12. Any other work required for proper O & M.

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# 13.2.4 QUARTERLY CHECKS:

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- Cleanout and refill the pump bearings with oil or grease. 1
- Renew the gland packings. 2
- Check coupling alignment, coupling components for signs of wear or damage. 3
- Check oil level in the wet vertical pumps of sump chamber.
- Inspect entire system for any unusual conditions such as noise, vibration etc and to take 5
- Inspect all safety controls and adjust, if required.
- Inspect all operating controls and adjust if required. 7
- Review daily operating logs maintained by operating personnel and submit a report to MMO. Log operation of machine.
- Submission of report to MMO in writing for all activities.
- Inspect starter contacts, motor terminals, check connection in starter. Tighten motor terminal control circuit terminals, check motor winding and connecting wiring for continuity meg motor and connecting wiring on each lug and to take necessary action if required.
- 11 Any other work required for proper O & M.
- Checking the insulation of motor if it is suspected to be low.
- Servicing the motor according to the instruction of manufacturer manuals.

#### 13.2.5 HALF YEARLY CHECKS:

- 1. De-scaling / cleaning and painting of pumps and motors including control valves.
- 2. Remove greases from all bearing, clean repack and to rectify if necessary.
- 3. Check and clean all strainers and to rectify if necessary.

#### 13.2.6 YEARLY CHECKS:

- 1. Inspect the pumps thoroughly i.e. checking of fan assembly, mechanical seal, checking the load of motor, fan rebalance, alignment of pump, replacement of oil in case of wet vertical pumps (change oil half yearly), check the operation of the motor, motor drive shaft, check level of vibration, sound motor temperature and to take necessary action if any.
- 2. Inspect starter contacts and motor terminals, check connections, tighten motor terminal, and check motor winding and connecting wiring for continuity. Megering motors and connecting wiring on each lug, inspect, calibrate and adjust to original specifications of all safety and operating controls including low temperature, high pressure cut outs, motor protector, oil pressure control etc.
- 3. Overhaul.
- 4. Check tighten hold down bolts and anchorages.
- Check cabling for loose contacts.

Cost of material/ items included in scope of work: 14)

- i. Daily consumables, lubricating oil /greases.
- ii. Cost of all cleaning/testing materials required.
- iii. Cost of all tools & tackles manpower etc (as mentioned in the scope of work) required for Maintaining and Operating the pumps, pipeline and fire fighting system.
- iv. Cost of all lubricants oil -filter and strainer, seals, glands and calibration of gauges including cost of gauge etc. required to maintain the system.
- v. Cost of nuts, bolts washer, gaskets, 'Q' ring sets, required in functioning of the system.
- vi. Cost of repair /rectification of gate valves, NRVs, rubber coupling /coupling stars, Mechanical seals and Gland packing etc.
- vii. Cost of de-rusting, painting the pumps and motors and control valves in pump house & sump chambers.
- viii. Complete maintenance of pumps, oil &bearings replacement.
- ix. Cleaning of all pumps and pump house, sump pumps and sump chamber free from dust.
- x. Overhauling of pumps as per schedules.
- xi. Maintaining Logbook for daily operation & maintenance of pumps including cost of stationery.
- xii. General items specification:

Oil: SAE 30 or Equivalent

Grease: Caltex

Gland packing Size: - 5/16" square, 3/8" square and 1/2" square.

Rubber Packing for Couplings: - Lovejoy

- xiii. Cost of repair / rectification / rewinding of motors of pump house, sump chambers and bore wells.
- xiv. Cost of Refilling of all fire extinguishers mentioned in point 3 of table of Technical Specifications, once per annum and getting hydro-pressure testing of CO2 cylinder/ Extinguisher.
- xv. Maintenance of all fire extinguisher including cost of supply of accessories i.e horns, wheel, washer, high pressure tube, safety pin etc.
- xvi. Repair & Maintenance of MS water pipeline as mentioned in the scope of work including cost of MS flanges, required fittings, other consumables i.e welding electrodes , oxygen & acetylene cylinders, Nut & Bolts etc.
- xvii. Recharging of Fire Zone card of main fire panel.

The rate quoted by the agency shall include the entire cost including taxes etc. Nothing shall be payable extra on account of above materials.

15) Cost of materials not included in the scope of work:

Materials / items which have not been covered under the above head Vide SI.No. (I) To (xvii) like spares of pumps, valve etc, which shall be required under the scope of work, shall be supplied by the

agency as and when required. The cost of those spares shall be paid extra with 10% transportation /

## 16) TOOLS & TACKLES

The agency shall have to arrange the following tools for Operation & Maintenance of Pumps.

I. No.	Description  Description	and of rumps.	
1	Portable screw driver set with electrical line	Nos. 3 Sets	
2	Set of spanners		
3		3 Sets	
	Digital multimeter	2 Sets	
4	Continuity tester	3 Sets	
5	wrench 12"	2 Sets	
6	wrench 18"		
7	wrench 24"	2 Sets	
		2 Sets	
8	wrench 30"	2 Sets	
9	Puller	3 Sets	
10	Hammer 2 lbs, 4 lbs & 8 lbs	1 no. each	
11	Screw driver set	3 Sets	
12	Electrical tester, Test Lamp, Meggar, Insulation tape, CRC oil	As per requirement	
13	Pliers	3 Sets	
14	Dial gauge for alignment	1 set	
15	Gas Cutting Set	1 set	
16	Welding Set	1 Set	
17	Weighting Machine (0-30Kg)	1 No.	
18	Digital Display Thermometer	1 no.	
19	Portable Drilling Machine	1 Set	

Any other tools & tackles required for smooth operation & maintenance of the system shall be arranged by Agency as and when required. Nothing shall be paid extra on this account.

#### 17) DEPLOYMENT OF MANPOWER

The contractor will be required to deploy the following "minimum" personal at site for the above the works.

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SL	Manpower	Minimum Qualification	Minimum Working Experience	Age	Nos.
1.	Supervision	Diploma in Mech. Engineering or Bsc.	5-year in O&M of pumping system	Not More Than 62 Years	1
2.	Welder	Welder certificate in the trade of welding	3- year experience of welding of water pipeline	Not More Than 55 Years	1
3.	Plumber/Fitter	Matric	3-years in mtc of pipelines, valves etc	Not More Than 55 Years	2
4.	Operators	Matric	3- year as operator of pumps/FF system	Not More Than 55 Years	3
5.	Electrician	ITI (Elec.)	3-yearin Electrical installations	Not More Than 55 Years	1
6.	Helper	Semi-skilled	2-year in maintenance of pumping/FF system	Not More Than 60 Years	9

The manpower deployed by the contractor shall be dressed in uniform. The manpower for Operation and Maintenance shall be deployed round the clock including Sunday and holiday in shift (A shift, B shift, C shift and General shift). However, the Agency shall follow all the labour laws / rules for deployment of manpower for prescribed weekly rest. Working hours for man power deployed for all days shall be as follows:

General shift 9.00Hrs to 17.30Hrs

'A' shift 6.00Hrs to 14.00Hrs

'B' shift 14.00Hrs to 22.00Hrs

'C' shift 22.00Hrs to 6.00Hrs (Next day)

Manpower deployed in A, B&C shift shall not leave unless relieving manpower arrives. Overtime shall not be paid under any circumstances.

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