



NEW MANGALORE PORT AUTHORITY

Mechanical Engineering Department

Panambur, Mangalore – 575 010.

Phone: 0824 - 2887747/777.

No. SE(M)/2023-24/Fire Fighting Robot(Hiring)

Date: 06/10/2023

To,
The Intended Bidders,

Sir,
Sub: "Providing 5 Nos. of Robotic Fire Fighting System on hire basis, for a period of 5 years" – Budgetary Quotation Requested – Reg.

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NMPA is intending to hire 5 Nos. of Robotic Fire Fighting System for use at Oil Jetties. In this regard, Budgetary Quotations are requested for "Providing 5 Nos. of Robotic Fire Fighting System on hire basis, for a period of 5 years" as per the BOQ & Terms & conditions detailed below.

Sl. No.	Description of item	Monthly rate in Rs.	Total Amount for 5 years in Rs.
1	Monthly Charges for Hiring of 5 Nos. of Robotic Fire Fighting System as per the terms & conditions detailed below, excluding GST. Contract period: 5 years		
	GST @ _____		

Terms and conditions:

1. The Technical Specification of Robotic Fire Fighting System are as follows:

Water/foam monitor	Not less than 1750 LPM – UL Approved or any equivalent approved standard.
Application	Sea water application
Integral Inbuilt Foam tank	Not less than 400 Lt capacity
Monitor shall be of	SS304

Nozzle	AFFF foam/jet/spraying type
Jet distance	Horizontal - Not less than 53 Mt. Vertical – Not less than 35 Mt. at 300 degrees angle in still wind conditions.
Monitor movement	Vertical movement: -10 to +90°; Horizontal movement: Not less than 270°
Monitor – additional fitting	Hand wheels for local manual operation.
Monitor motor rating	IP 66
Additional fittings	Shall be fitted with curtain nozzles to protect robot from all sides from radiant heat
Floodlights	Shall be equipped with floodlights of minimum 40W and illumination should not hinder camera vision
Robot Controls	Wireless workable distance of 500 meters in line of sight in open field and shall have joystick-based controls.
Manual override	Shall have manual override system for all functions
Camera	Shall have both a Thermal camera and HD vision camera and video shall be transmitted live in real time
Drive system	Drive system shall be hydraulic.
Drive Power source	Minimum 10 HP I/C Engine with Fuel Tank of 2 hours capacity equivalent to 2 hours of driving time and 10 hours of idling time and shall have a flame proof spark arrestor fitted onto the exhaust pipe.
Control power source	Separate power source for drive, control and monitor operation shall be provided that provides capacity for at least 4 hours duration for monitor movement, camera feed and communication operations with provision to swap battery for extended operation duration.
Tracks	Tracks shall be made of steel.
Movement	Shall be easily maneuverable and be able to negotiate a slope of up to 20° and be able to take point turns.

Towing Trolley	<p>The towing trolley shall be robust and shall be able to withstand road disturbance & vibration for towing speed up to 30 km/hr.</p> <p>The towing trolley shall have manual pull handle.</p> <p>The towing trolley shall have railing and latching arrangement to securely fix the Equipment on itself for towing safety.</p>
Flameproof	<p>All electrical equipment such as motors, batteries, solenoid valves, floodlights and cameras shall either be flameproof or mounted inside a flameproof enclosure. The fire fighting robot shall be compatible to be used in Zone I as per OISD standard.</p>

2. The Budgetary offer from firms having experience in the field of Design/Supply/O&M of Robotic Fire Fighting System or Manufacturer's Authorization letter from OEM for the supply of Robotic Fire Fighting System or having experience in manufacturing similar type of system should only be considered.
3. The tenderer shall operate and maintain the Robotic Fire Fighting System Round the Clock (24X7), including manpower and spares, consumables, O.T., insurance, EPF/ESI, over heads and profit etc.
4. The Robotic Fire Fighting System shall be used at NMPA as well as outside of NMPA for firefighting as and when required.
5. NMPA shall provide the Fuel required for the Operation.
6. The contract shall be for a period of 5 years. The contract may be extended for an additional period of one or two year at the same rates, terms & conditions, provided the contractor has performed satisfactorily in the previous years.
7. The Tenderer should deploy 1 Operator cum Mechanic for each shift of 8 Hrs. and 1 Operator shall be deputed as Reliever when required for the weekly off for 24x7 operation of equipment.
8. Comprehensive Insurance Policy shall be taken for the Robotic Fire Fighting System to safeguard the interest of the port against all risks involved. To comply with the Motor vehicles Act 1989, this insurance should cover all the

risks for liability of life of passengers and the driver. This should also cover all riot risks.

9. The Tenderer shall comply with all the labour, commercial and industrial laws applicable for performance of this contract. The Tenderer shall be responsible to pay all taxes, charges and duties prescribed for operation of the Firefighting Robot within the state of Karnataka. NMPA will not reimburse any taxes, levies, tolls & duties other than the GST as per prevailing rates during the period of contract. GST will be paid only if the tenderer has furnished the notarized copy of GST registration certificate issued by the GST authorities.
10. In case of any accident caused to any person including the tenderer's or Port's workmen or damage to any property in the course of the execution of the contract, the tenderer will be solely responsible for payment of Compensation, Medical aid, etc. In case, the tenderer fails to pay the compensation within a reasonable time, where the damage occurs within the Port area, the Port may settle the claims and arrange to recover the same from the tenderer. The tenderer shall be solely responsible for any accidents to his/her employees, Port's employees, or the public, from any cause whatsoever and he shall indemnify the NMPA against any damage to property or injury to person resulting from any such accidents and shall take steps to properly insure against any claims. NMPA shall not have any connection whatsoever in this connection against any proceedings/actions by any Government/Departments of Governments, etc.
11. Payment of wages to the persons engaged by the Tenderer shall not be less than the minimum wages for highly skilled category as per Minimum Wages Act, 1948.
12. The contractor shall comply with the Central, State and Municipal laws / rules and shall solely responsible/ complying with provisions of contract labour (Regulation and Abolition Act.1970) and rules there under and other enactments that may be applicable including ESI, EPF, Payment of wages Act, the workmen compensation Act or any other applicable legislations, Municipal laws, or other statutory rules / regulations whatsoever in force and as far as they are applicable.
13. **Welfare Measures - EPF, ESI, Bonus:**
 - i. All the workmen of this contract shall be covered with EPF as per the provisions of "The Employees Provident Funds & Miscellaneous Provision Act, 1952".

ii. All the workmen of this contract shall be compulsory covered as per the provisions of "Employees State Insurance Act,1948".

14. **Payment Terms:** 100% payment within 15 days from the date of submission of monthly bills along with the required documents. Also the contractor has to submit the receipt of ESI and EPF contribution paid to their staff and extract of wage & bonus payment Register for the month for which the contractor submits the bill, as documentary evidence.
15. **Performance Test:** The deployed Robotic Fire Fighting System shall be tested every week for half an Hour operation to check the performance of the system through mock drill. Failure to report to the site within the stipulated guideline will attract the penalty @ 10% of the monthly hire charges. If repeated failure may lead to termination of the Contract.
16. The Budgetary offer enclosed in a sealed cover super scribed as "Providing 5 Nos. of Robotic Fire Fighting System on hire basis, for a period of 5 years" should reach to the under signed on or before 16/10/2023 at 15:00 Hrs. to the below mentioned address.

Sd/-

(SRINGESWARA N.S)
Superintending Engineer (M)

Address for Communication:

Room No.234,
2nd Floor, Technical Cell,
Mechanical Engineering Department
NMPA, Panambur,
Dakshina Kannada, Karnataka – 575010
Mobile No.9480600055
Email: sringeswara.ns@nmpt.gov.in