

**NAME OF WORK: Supply, Installation, Testing & Commissioning of Cooling System in preparatory area of Engine Test Cell at AIESL MRO facility, MIHAN SEZ, Nagpur – 441108.**



**Tender Enquiry No. EFD/ Nag MRO / 22-23 / 006**

**Dtd. 19 July 2022**

**Pl. reply to:**

**General Manager- Engg., MRO  
AI Engineering Services Ltd.  
MRO Unit, MIHAN SEZ, Nagpur - 441108  
Ph. 0712 280 0000 Extn. 228**

**NAME:.....**

**ADDRESS.....**

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- a) DD / BG towards EMD or EMD Exemption certificate for small scale industries, special conditions of contract, Technical Specifications, scope of work etc.
  - b) Duly filled in Technical Bid strictly as per the format provided.
  - c) Technical Bid pages should be duly signed and stamped by the bidder.
  - d) All the mandatory supporting documents asked for in the technical bid
  - e) The Technical Bid Envelope should be sealed and super scribed as **“Technical Bid: Tender Enq. No. EFD/ Nag MRO / 22-23 / 006 dtd. 19 July 2022”**
  - f) Technical Bid should not contain any details of price bid/commercial bid. If the Price Bid details / Commercial bid details found in technical bid envelope, then your bid will be disqualified and neither the Technical Bid nor the Commercial Bid will be considered.

1.5. Part- II, Price bid (Envelope-2) shall include:

- a) Price quoted along with the bill of quantities as per schedules provided in BOQ and 'Price Format'.
- b) The taxation part and any other costs must be mentioned in 'Price Format' sheet.
- c) The price Bid pages should be signed and stamped by the bidder
- d) The price bid offer should be strictly in the in the format provided
- e) The envelope containing dully filled in price bid should be sealed and super scribed as **“Price Bid: Tender Enq. No. EFD/ Nag MRO / 22-23 / 006 dtd. 19 July 2022”**.

If the price bid is received (or) put in an open condition inside the technical bid or the Master Envelope, then your bid will be disqualified and neither the Technical Bid nor the Price bid will be considered.

- f) Bidder shall initial all corrections; sign all pages of the tender/Bid document and all the enclosures accompanying their bid document before submission.

1.6. Envelope-3 should contain the following:

- a) Envelope-1 (Technical Bid)
- b) Envelope-2 (Price Bid)

Signature of Bidder:

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1.7. Tech. Bid for Part-I will be opened first. – Payment of EMD or EMD Exemption certificate shall be ensured. The technical clarifications, if required will be sought by AIESL.

1.8. Price bid part – II of all bidders, who qualify the technical bid, shall be opened on the same day, if no technical clarifications are required. Else, it will be opened on a later date after technical clarifications have been sought and received.

1.9. Tenderer shall submit all clarifications / confirmations, in sealed envelope to GM-Engg, MRO as mentioned above within the specified time.

1.10. An authorized person, holding the power of attorney shall sign tenders.

1.11. Tenders shall be filled in English and all the erasures and alterations must be duly attested. Overwritten figures are not permitted.

1.12. The tenders shall be accompanied by the DD favoring 'AI Engineering Services Limited' payable at Nagpur, of Rs. 26,000/- towards Earnest Money Deposit - Refundable

OR

An irrevocable Bank Guarantee for Rs. 26,000/- and valid for 90 days from date of technical Bid Opening, will also be acceptable in place of DD.

1.13. Tenders not accompanied by EMD will not be considered for opening. Parties registered with National / State Small Industries Corporation Ltd. is exempted from payment of EMD. Parties interested in obtaining such exemption shall enclose the latest valid (not earlier than 3 years from date of issue of tender documents) certificate issued by the relevant small industries corporation for the relevant field, along with the technical bid

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1.14. Earnest money of successful bidder will be adjusted in Security Deposit. Earnest money of unsuccessful bidder will be refunded within one month from the date of expiry of the validity of bids. Earnest money will not bear any interest.

1.15. AIESL reserves the right to accept the tender in full or part or reject any or all without assigning any reason.

1.16. Our 'General Conditions of Contract' are available for your perusal in our office.

For, AI Engineering Services Ltd.

**Mr. K S Satyavira  
General Manager- Engg, (MRO).**

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## **SECTION II**

### **1 SCOPE & DESCRIPTION OF WORK:**

**1.1.** Supply, Installation, Testing and Commissioning of water cooled system with insulated rectangular/round ducting at Three Bays of Engine preparatory area to maintain below mentioned parameters:

**A) Temperature Range: Less Than 27 Deg C, when ambient temp. is between 45-46 Deg C.**

**B) Humidity: 60% +/- 5 Rh**

**C) Noise Level: Less than 70 db**

These bays measuring 29 FT X 35 FT used for assembly/disassembly of GenX Engines and hence above parameters strictly need to maintain during operation of cooling system.

Cooling system shall have:

- Required nos cooling units equipped with the variable fan speed, float valve, source of water, High-efficiency Honey Comb Cooling Pads, Heavy-duty Submersible type water pump for continuous water supply, ducting and insulation panels, MS angle support for cooling units, provision for standard electrical supply, on/off controller
- Suitable de-humidifier to maintain humidity level at 60% +/- 5 Rh.

The cooling units should be of robust design, easy in operation and trouble free service. Provision of rain sheds shall be made above outdoor electrical panels & if necessary above cooling units. The cooling system should be able to work continuously at the ambient temperature and humidity at preset temperature.

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For testing and commissioning, the System will be run for 3-4 working days and contractor will record the parameters at various intervals. Contractor will submit this record as a proof of satisfactory working.

**1.2** Power Source/ Voltage: 230V / 50 Hz / single phase OR  
440V / 50 Hz / Three phase

Documents: a) Maintenance Manual b) Warranty certificate

**1.3 AIR DUCTING:** Supply, installation, balancing and commissioning of pre insulated fabricated at site GSS sheet metal rectangular/round ducting of suitable size & length and compatible with cooling units, complete with neoprene rubber gaskets, grills, filters, diffusers, bend, reducer, elbows, coupling, splitter dampers, vanes, hangers, supports etc. flexible ducting wherever required as approved by EIC.

**1.4 FABRICATED STEEL WORK:** Supply, Fabrication, Cutting, Welding, Erection at site and cold compound zinc coating of M. S. Angle support work compatible with cooling units. Job includes painting of all the angle supports including base frame with two coats of the suitable paint of enamel color over a rust resistant primer.

**1.5 PLUMBING AND PIPING WORK:** Supply, Installation, Testing & Commissioning of C-PVC/ U-PVC piping including fittings- tee, elbow, union etc. of required size, with cut-off valve to ensure steady supply of water to cooling units/storage tank as instructions & approved by EIC.

**1.6 ELECTRICAL WORK:**

A. Supply, Laying, Testing and commissioning of 10 Sq. mm X 3 core XLPE insulated PVC Sheathed aluminum conductor 1100 V grade armored electrical cable on walls / Column / Existing cable trays / existing cable trenches using the

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spacers, saddles, clamps, cable ID Alum tags etc. from outgoing feeders to Control panel in material store (Approved makes for Cable - Polycab, Finolex, RPG, Universal, CCI , KEI ).

B. Supply and laying of 2 runs of 25 X 3 mm Al earth strip with required alum hardware for connecting the control panel to nearby power earth points. The strips will be measured separately.

**1.6** All the required civil work, plumbing, scaffolding work, electrical work at site at no extra cost.

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## **2. CONTENTS OF TENDER**

- 2.1. Any tender found incomplete in terms of any of the foregoing shall be liable to rejection.
- 2.2. The Tenderer must be able to complete the entire work as per the intent of technical specifications and scope of work as mentioned in Tender Documents.
- 2.2. In the event of any contradictions between the General Terms of Contract and the above said, this document should supersede the General terms & Conditions.

## **3. HANDING OVER DOCUMENTS (3 sets in folder)**

- 3.1 Catalogue, Technical data sheet and Test Certificates of Cooling units.
- 3.2 Test Cert of Power cable and site test certificate for Continuity, Insulation resistance and earth continuity.
- 3.3 Work completion Certificate and Warranty Certificate
- 3.4 Contact details of personnel for maintenance / repair / warranty

**4. The Contractor will include Preventive maintenance and checks at quarterly interval during one year Defects Liability Period, in the quoted amounts.**

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### **SECTION - III**

#### **A. SPECIAL CONDITIONS**

##### **1. Site Conditions :**

- 1.1. The site for this work is at Preparatory area in Engine Test Cell facility, AIESL MRO, MIHAN SEZ, Nagpur and it is a security sensitive area. The contractor will keep entry passes always valid and will employ safe practices at work.
- 1.2. Interested bidders must visit the Site, study the tender documents, take the actual measurements and fully clarify to understand the exact work content and note the site conditions before quoting. This proposed work is to be done in existing working area; hence contractor must understand the site constraints.
- 1.3. A qualified and responsible supervisor will always remain present at site, when the work is being carried out. He will ensure compliance of standard safety precautions and use of safety equipment.
- 1.4. Any damage caused during the execution of work, will be made good by the contractor on his own cost, else the cost of damages will be recovered from the payment due to contractor.
- 1.5. AIESL will provide adequate space for keeping the contract material, but it will be contractor's responsibility to ensure its security. The contractor will maintain the site clean and remove all waste / loose / unwanted items regularly.

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## **2. Commercial Conditions**

- 2.1. The quoted rates must be inclusive of all costs towards labor, material, tools, equipment, instruments, access stands, lifting tackles, hardware, consumable, transport, insurance etc. whatever required to complete the proposed work.
- 2.2. The 'PRICE Format' sheet of tender documents must be filled in properly and completely. The applicable GST tax shall be clearly mentioned on Goods as well as Services, in the price bid. Only attached AIESL formats will be used by bidders for filling in Bill of quantities and Commercial details. Please see the Payment Terms for GST clarifications for SEZ units.
- 2.3. The payment will be made as per the joint measurement for the work actually completed at site and handed over to AIESL. No payment will be admissible for any excess or wastage.
- 2.4. The quantities mentioned in the BOQ are tentative and may vary depending on the site requirements. The contractor will not have any claim towards change in quantities. The contractor must take his own measurements before buying the material.
- 2.5. Contractor will not do any extra work leading to any extra payment, without permission of EIC. Any change in design, layout, scheme, tech specifications etc. must be duly approved in advance.
- 2.6. The contractor will take out and ensure the validity of Workmen's compensation Insurance Policy for the workers deployed at site

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- 2.7. The Defects Liability period will be one year from the date of completion of work. AIESL will retain 10% of contract value as Security Deposit for this period. The contractor will attend all defects arising during this period at no extra cost. The response time will be next working days and the defects will be attended within maximum 5 working days. Alternately, this security deposit can be in form of a Bank Guarantee of equal amount for one year period.
- 2.8. All interim and final bills will be submitted in 4 copies along with 2 copies of duly signed Joint Measurement sheet for the work done.
- 2.9. Liquidated Damages – For non- completion of the work within the prescribed time, the contractor will be liable to pay the liquidated damages at a rate of 1.5% of the contract value for per week of delay subject to a maximum of 15% of contract value or the actual value of completed work. Extension of time will be considered by AIESL, in case of the delay not owing to the contractor.

### **3. Payment terms:**

- 3.1. AIESL MRO Nagpur being approved SEZ unit in MIHAN SEZ, GST is exempted to AIESL. Contractor shall submit Letter of undertaking (LUT)/ Bond to avail GST benefits.
- 3.2. AIESL will make payment within 30-45 days from date of receiving the technically and commercially clear bill after satisfactorily completion of work.
- 3.3. 60% of Contract Value on delivery of Contract material at site, 30% on Installation, Testing and handing over and 10% after one year of Defects Liability Period. This last 10% amount too can be released in lieu of a Bank Guarantee for one year for same amount.

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## **SECTION - IV**

### **ANNEXURE-I**

Please submit the relevant documents as part of Technical Bid–Sealed Envelope – 1

1. Details of Firm / Company:

Firm's name:

Address:

Contact No. and Email ID:

Contact person:

2. Average Annual financial turnover during the last 3 years, ending 31st March of the previous financial year should be at least 30% of the estimated cost.

Supporting Documents shall be submitted in the envelope.

3. Details of similar works done

The contractor should have executed successfully in their independent capacity similar works during last 7 years ending March 31, 2022 which should be either of the following:-

(a) Three similar completed works (at least one of them should be in Central Govt./ State Govt. / PSUs / Power Station / Corporate Major Industries, each Costing not less than 40% of Estimated cost

OR

(b) Two similar completed works costing not less than 50% of Estimated cost

OR

(c) One similar completed work costing not less than 80% of Estimated cost

Supporting Documents shall be submitted in the envelope.

4. All contractors applying for works listed above should have a valid PAN and GST registration.

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**A. Basic Information About The Firm**

Sl. No.	Description	Contractor's Information
1	Name and Address of the firm	
	Telephone / Fax no.	
	Name of Contact person	
	Mobile No: of Contact person	
	E-Mail Id	
2	Type of organization (Proprietorships/partnership/ltd. Co. etc.) copy of relevant document to be enclosed	
7	Date of Incorporation/commencement of Business	
8	Experience as a prime contractor	
9	PAN	
10	GST No.	
11	Education and Experience of Key Technical Staff	
12	Details of Govt Agency / Central public sector undertaking / Major Industry for which is your firm is empaneled	

**B. Financial Position**

		2019-20 In Lakhs	2020-21 In Lakhs	2021-22 In Lakhs
1	Annual Turnover			
2	Net Profit			
3	Copy of Audited Financial Statements for past 3 Financial years (Enclosed)	Yes / No		
4	Copy of Income Tax returns for the past 3 Financial years (Enclosed)	Yes / No		

Signature of Bidder:

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**Checklist of Documents to be submitted**

1. Duly Filled and signed tender documents including Section-IV Annexure-1
2. Copy of Pan Card
3. Copy of GST registration
4. Copies of Audited Financial Statements for the Past 3 financial years OR Copies of Income Tax returns submitted for the past 3 financial years.
5. Copies of Work Orders & Completion Certificates with contact details of clients
6. Any other supporting documents.

AI ENGINEERING SERVICES LTD.  
 NAGPUR MRO  
 MIHAN SEZ, NAGPUR, 441108



**Tender Enquiry No. EFD/ Nag MRO / 22-23 / 006 Dated 19 July 2022**

**NAME OF WORK :** Supply, Installation, Testing & Commissioning of Cooling System in preparatory area of Engine Test Cell at AIESL MRO facility, MIHAN SEZ, Nagpur – 441108.

**Estimated cost :** Rs. 13.0 Lacs

BILL OF QUANTITIES					
S.No.	DESCRIPTION OF WORK	Unit	Qty.	Rate	Amount
1	Supply, Installation, Testing and Commissioning of water cooled system equipped with the variable fan speed, float valve, source of water, High-efficiency Honey Comb Cooling Pads, Heavy-duty Submersible type water pump for continuous water supply, dehumidifier etc. at each bay measuring 29 X 35 Sqft of Engine preparatory area to maintain below mentioned parameters: A) Temperature Range: Less Than 27 Deg C, when ambient temp. is between 45-46 Deg C. B) Humidity: 60% +/- 5 Rh C) Noise Level: Less than 70 db as per detailed scope of work mentioned in tender enquiry.	JOB	3		
2	Supply, installation, balancing and commissioning of Air Ducting Work as per scope of work	RMT	60		
3	Supply, Installation of C-PVC/ U-PVC piping including fittings- tee, elbow, union etc. of required size, with cut-off valve to ensure steady supply of water as per scope of work & instructions of EIC	RMT	150		
4	Fabricated steel work as per scope of work & instructions of EIC	KG	80		
5	<b>Electrical Work:</b>	--	--	--	--
5.1	Supply, laying, termination, testing and charging of 10 Sq. mm X 3 core XLPE insulated PVC Sheathed aluminium conductor 1100 V grade armoured electrical cable as per scope of work & instructions of EIC	RMT	50		

5.2	Supply, laying, connecting and testing of 2 runs of 25 X 3 mm Al earth strip for earthing complete with alum joints and hardware, as per scope of work & instructions of EIC	RMT	100		
	<b>All Inclusive Total amount quoted (Exclusive of GST)</b>				

**Quoted Amount in words Rs.** \_\_\_\_\_

**NOTE :**

1. Contractor has to provide all precautions and arrange safety gears like safety harness, belts, helmets etc. to all working labours as per requirement at site.
2. Bidders have to include cost of All Materials, scaffolding, hardware and consumables for satisfactory completion of the job even if it is not specifically mentioned in BOQ.
4. Quoted rates shall inclusive of all costs towards transport, insurance, material, labour, hardware, consumable, equipment, Instruments, tools, lifting tackles, safety gears, scaffolding etc. but excluding of GST.
5. AIESL MRO Nagpur is approved SEZ unit located in MIHAN. Hence, contractor shall submit LUT ARN to avail GST benefits before raising the invoice. AIESL will not pay any GST to contractor.
6. AIESL General conditions available in MRO are applicable, contractors are advised to read the same.

I / We hereby declare that I / We have read and understood the scope & description of work, General & additional conditions of Contract and hereby agree to abide by the same.

Date:

Place:

Name, signature, address and seal of the tenderer

email  
mob no.