INTER – UNIVERSITY ACCELERATOR CENTRE

(An *autonomous centre of UGC)*
Aruna Asaf Ali Marg, Post Box No. 10502, SBI ATM, NEW DELHI - 110 067 (India)
Ph # 011-24126022/24-26/44/45, Web: www.iuac.res.in

Date: **22/07/2026**

Indent Number: 469

Sub: **Price Quotation**

Dear Sir,
IUAC is an autonomous body of UGC providing facilities to universities and educational institutes to carry out the higher education and research in various scientific fields. We need the following item for our centre:

S. N.	**Description of Items**	**Qty.**
1	**"Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals for New Cooling Towers"as per attached NIT & BOQ at IUAC, Aruna Asaf Ali Marg, New Delhi -110067.**	1 Lot

Name of Bidder/ Signature/ Stamp

ANNEXURE-A

Terms & Conditions

The bidder is required to ***agree*** on the following terms and conditions for successful submission of bid:

1. **Submission of Bids:** Bid shall be submitted in a sealed envelope as a single (Techno cum Commercial) bid **mentioning due date as 04/08/2026 and Indent No. 469** on left hand top corner. It can be sent by post or hand delivered (**no email bid will be accepted**) to the IUAC reception during office hours. Bidder shall quote for all the items of the BOQ. Incomplete bid will be rejected.

2. **Technical specifications:** The bidder should agree on the technical specifications / scope of works as mentioned in tender and provide mandatorily all the documents as below:

a) Terms & Conditions are given in **Annexure – A**
b) Site Visit **Annexure-B**
b) Specifications & Scope of Work **Annexure – C**
c) Profile of the Bidder is given in **Annexure – D**.
d) BID Securing Declaration Form is given in Annexure **– E**.
e) Bill of Quantities is given in **Annexure - F**.
f) Copy of Purchase order and invoice of similar works within last 3 years.

3. **OEM/ authorized distributor: NOT APPLICABLE**

The bidder should either be OEM or authorized distributor of OEM only. In case of distributor, authorization certificate from OEM should be provided along with the quotation.

4. **Quotation currency:** Price of the items should be quoted as unit price in Indian National Rupee (INR) only. All the charges including freight, packing charges if any, taxes, etc should be mentioned in the price quotation.

5. **Validity of quotation:** The period of validity of quotation should be clearly mentioned (should not be less than 30 days).

6. **Completion period:** Time-line for completion of Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals should be completed within **6 (six) months / 180 days from the date of issue of Purchase Order.**

Please note that the system is in round the clock operation. IUAC will provide for the shutdown of one number of cooling tower at a time for dismantle, assembly and commissioning of the same.

Once the first cooling tower is installed, tested and commissioned and put into operation with the system, then only the shut down for the second cooling tower will be provided. The bidder has to plan accordingly.

The shifting and installation of New Cooling Towers shall be carried out immediately after dismantle of old Cooling Towers and making of new foundation.

7. **Earnest Money Deposit: (valid for works above Rs.5 Lakh)** EMD @ 2% (Two percent) of total estimated value of the contact i.e. Rs 30,000 (Rupees Thirty Thousand only) is to be submitted along with the bid document in the form of Demand Draft / Banker's Cheque in favor of IUAC, Delhi. Bid Security shall be refunded to the un-successful bidders on award of contract and to successful bidders on receipt of Performance Security.

EMD is the mandatory requirement, however the MSMEs / NSIC registered with Government Agencies are exempted from payment of Earnest Money Deposit (EMD) and are required to submit Bid Security Declaration form subject to conditions given below: -

(a) MSMEs participating in the tender must submit valid & authorized copy of certificate of registration. The MSME's Bidder to note and ensure that nature of services and goods / items manufactured mentioned in MSME's certificate matches with the nature of the services and goods / items to be supplied as per NIT.

(b) The registration certificate issued by agencies must be valid as on tender closing date of the tender. Bidder shall ensure validity of registration certificate in case bid closing date is extended.

(c)The MSMEs who have applied for registration or renewal of registration with any of the authorized agencies / bodies but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption / preference.

8. **Warranty and after sale service:** The items / works shall have warranty period of one year from the date of acceptance by IUAC. Any damage or repair / replacement required in this period should be attended by the vendor free of cost to IUAC within one week of period of reporting.
9. **Payment terms:** 90% payment shall be made after successful commissioning and acceptance by the IUAC. Balance 10% shall be held back as guarantee for warranty period of one year or same may be released on submission of Performance Bank Guarantee @10 % of the bill value valid up to two (02) months beyond one year warranty period.
10. **Performance Security (valid for purchases above Rs.5 Lakh):-** The supplier shall require to submit the Performance Security within 15 days on issue of Purchase Order in the form of irrevocable bank guarantee or FDR issued by any Indian Nationalized Bank in favor of Inter-University Accelerator Centre, pay able at new Delhi, for an amount which is 10 **(ten) %** of the order value and should be kept 3 months beyond the delivery period. The Performance Security shall be refunded to the supplier after the due certification by IUAC personnel.
11. **Liquidated Damages:** In case work is delayed beyond the specified delivery date, deductions on account of liquidate damage @01% per week or thereof will be deducted subjected to maximum of 10% of order value.
12. Short fall of documents, if any, in the bid may obtained by the IUAC on email.
13. **Force Majeure:** The right of the contractor/supplier to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor/supplier, including not limited to acts of God, Pandemic, or of the public enemy, restraints of a sovereign state, firms, wars, fires, epidemics, quarantine restrictions, floods, unusually severe weather. If a Force Majeure situation arises, the supplier/contractor shall promptly notify along with the justification/reasons well in advance to the Director IUAC for approval without any prejudice to price escalation. No time extension request shall be considered after the expiry of completion period/contract. The decision of the IUAC, Director will be final and binding on the supplier/contractor.
14. Director, IUAC reserves the right to accept / reject any / all tenders in part / full without assigning any reason whatsoever and the decision of the IUAC in this regard will be binding on all the bidders. IUAC Director also reserves the right to disqualify any bidder and / or

cancel the order at any point of time without assigning any reason whatsoever. **The decision of the IUAC Director will be final and binding on the bidder / supplier / contractor.**

15. **Correspondence:** All the correspondence in respect of bid / contractual obligation shall be made to "The Administrative Officer (S&P), Inter University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi – 110067". E-mail: iuacstores@gmail.com, Telephone: +91-11-24126018, 24126022.
16. The contract shall be governed by the Indian Laws. Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi / Delhi only.
17. **Last date for submission:** The last date for submission of quotation on company letter head **14/08/2026 at 3.00 pm.**

(Signature of bidder along with official seal)

ANNEXURE- B

SITE VISIT UNDERTAKING

(To be submitted wherever required)

This certificate shall be furnished duly signed & stamped with **Technical Bid.**

Certificate/ Undertaking

This is to certify that we have visited the site where **dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals for New Cooling Towers** at Inter-University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi -110067 on …..... and assessed the actual situation & nature of site. We have also assessed the amount of work involved at site for tendered work before submitting our offer. We will be able to complete the above work within stipulated time as per site conditions.

We further undertake that no extra cost will be claimed by us later-on for any difficulties/ modifications involved during the execution of tendered works. We understand that work is to be executed in an already operational/ functional institute.

Signature of the Bidder, with Official Seal

Signature of the IUAC Official

ANNEXURE – C

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS:

1. Introduction:

It is mandatory that bidder should visit the site and understand the nature of work before submitting the offer.

IUAC is having 2 nos. of Cooling Towers Model-2230, Paharpur-Make in Ph-2 A/C plant installed in the year 1995. These Cooling Towers are running 24 X 7 to supply cooling water to condenser of 250 TR chiller unit, which is providing uninterrupted air conditioning of area and process cooling water requirements of scientific equipment in BH-II, Engineering. Building, PARAS, Geochronology Lab., and Material Sc. Building.

It is proposed to replace the existing cooling towers with new ones including "Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals for New Cooling Towers"as per attached NIT & BOQ at IUAC, Aruna Asaf Ali Marg, New Delhi -110067.

SITC 02 nos of New Induced Draft Cross Flow Cooling Towers of 300 TR (each) Heat Rejection Capacity will be done by IUAC through OEM.

The above 02 Nos of New Cooling Towers should be connected to the existing supply and return lines of the condenser water pipe.

Time-line for completion of Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals should be completed **within 6 (six) months / 180 days** from the date of issue of Purchase Order.

Please note that the system is in round the clock operation. IUAC will provide for the shutdown of one number of cooling tower at a time for dismantle, assembly and commissioning of the same.

Once the first cooling tower is installed, tested and commissioned and put into operation with the system, then only the shut down for the second cooling tower will be provided. The bidder has to plan accordingly.

The shifting and installation of New Cooling Towers shall be carried out immediately after dismantle of old Cooling Towers and making of new foundation.

1. Scope of Supply and Work:

It is mandatory that vendors should inspect the site before quoting the rates, so as to ensure that the new Cooling Towers will be shifted through the available access and fit in the available area with proper working space all around (Schematic diagram of existing Cooling Towers attached).

The price quoted by the bidder shall cover the cost of items as per BOQ given in **ANNEXURE-F.**

2.1. Dismantling and Safe Disposal of Existing 2 no's of Cooling Towers away from IUAC Site

2.11 Dismantling and Safe disposal of the existing 02 no's of cooling towers, including all associated structural supports, foundation, piping (up-to the existing 8" Cooling Tower IN Flange and 10" Cooling Tower OUT Flange), valves, electrical connections, and accessories.

2.12 Transportation and disposal of dismantled materials in compliance with applicable local environmental and safety regulations. The safe disposal of scrap items away from the site to be done within 15 days of dismantling work or else Rs. 10,000 per week will be levied as holding charges.

2.13 BUY BACK of existing 02 nos of 300 TR (each) Heat Rejection capacity Cooling Towers on as is where is basis. This item should be quoted separately in BOQ as per ANNEXURE-F, failing which the Bid may be rejected.

NOTE:

1. IUAC will not provide any GST bill/invoice towards the Buyback of existing 02 nos of 300 TR (each) Heat Rejection capacity Cooling Towers. IUAC will only issue Gate Pass for buy back items. Bidder has to consider this while quoting amount against credit towards Buy back.

2. Final evaluated cost will be considered for price comparison among the participating bids only.

3. Every bidder has to mandatorily quote all items in BOQs as per **Annexure-F**.

2.2. Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals

2.2.1 Laying Foundation after Dismantle of Old Cooling Towers One by One.

2.2.2 Reconnection of all MS piping, valves, and electrical/control systems.

2.3. Testing and Commissioning

2.3.1 Pre-commissioning checks, including verification of electrical connections, motor alignment, and water flow rates.

2.3.2 Hydrostatic and leak testing of piping and equipment.

2.3.3 Trial runs and functional testing of the cooling tower under load conditions.

2.3.4 Balancing of water flow and adjustment of control systems to ensure optimal performance.

2.4. Safety and Compliance

2.4.1 All work must be carried out in compliance with local safety norms, statutory requirements, and best practices in HVAC installation.

2.4.2 Contractor shall ensure the use of appropriate PPE, barricading, and safety signage throughout the duration of the project. The supplier shall give the performance and capacity test of all the equipment for its rated parameters after installation, testing & commissioning at site. It is entirely bidder's responsibility to

ensure that the room desired air condition is maintained. And test for the same shall be conducted for minimum one week running.

3 **Electrical Starter** (Star-Delta Panel including MCCB, OLR, Contactors, SPP, Ampere / voltage digital meter, start / stop push buttons Auto/Manual, indicating lamps for on / off for blowers) **as per requirements**.

4 Power / Control cable shall be laid in the tray / wall and include cable, ties, compression glands, thimbles, terminations, laying, saddles, fasteners etc.

5 The system installation team should comprise of a Technical Supervisor, experienced and approved welder(s), pipe fitter, grinder, helpers etc.,

6 Preparation of piping layout drawing including support details. The same should be got approved by us before fabrication and 2 copies of as built drawings & one soft copy both in solid works and in pdf to be submitted. Works shall be allowed only after approval of drawings.

7 Manufacturer's Material & Test certificates for all the equipment/material including MS Pipe, MS Fittings etc., should be submitted to us before starting execution of works by the contractor. Without submission of test certificates and approval from our end, work will not be allowed.

8 All the works will be done as per the technical specifications mentioned in **Annexure-C**.

9 All rates should be quoted by the bidder's item wise after carefully going through the technical specifications.

10 No deviations from scope of work & technical specifications will be acceptable.

11 The works are only indicative and all the activities needed for completion of the works have to be accounted for by the bidder at the time of quoting.

12 Bidder should take into account all the implicit items not specified here-in, but are essential for completion of the work. The costs of such items should be in-built in the costing of the item rates. If the items are not taken into account, they should be clearly brought out in the Technical Bid (Part-A) of the bid document.

13 While carrying out the works all precautions have to be taken to ensure no defacing / damage occurs to adjacent area / equipment etc., In case of any damage occurs, the same has to be rectified/repaired free of cost by contractor.

14 **Civil Works:** Civil work 'if any' will be in bidder's scope and quoted rates to cover for the same. This also includes digging & refilling, removal and disposing off the debris/malba outside IUAC at MCD designated place.

15 **Inspection:** Inspection visits for raw material, during fabrication, testing arrangement at factory / manufacturer's place and before final dispatch shall be made by the bidder. Cost towards inspection shall be borne by the vendor. However, cost of transport / lodging if any, for inspection shall be borne by the IUAC.

16 **Storage and living accommodation:** The contractor will be responsible for storage of material/ equipment at site and necessary locking; safety and security arrangement will have to be made by the successful bidder at his cost. Safety of all the materials stored and responsibility of the same shall entirely be that of the bidders. IUAC does not provide any living accommodation.

17 **<u>Codes and Standards</u>**: All the design / material / workman ship / fabrication shall conform to the latest editions of relevant Indian / American Standard Codes.

18 Documents to be furnished by Vendor After Award of Contract:

a) Activity bar Chart

b) List of Make, Model and specifications of all the items for approval before supply at site.

c) General Arrangement Drawing for Cooling Tower Foundation, piping, electrical panel etc. or as required by Engineer In-charge.

d) Electrical panel, power and control circuit drawings.

e) Manufacturer's material and test certificate, reports, manuals for piping, valves etc. should be submitted for all the material.

Technical Specifications:

1 MS Pipes: The MS pipes shall be ERW Black (<=150mm shall be as per IS 1239, PTI, Heavy Class and >=200 mm as per IS – 3589, 6.35 mm thick), beveled ends.

2 Flanges: The flanges forged ASTM - A105, SORF, ANSI B16.5, 150 lb, Table 15. Flanges may be tack welded into position, but all final welding shall be done with joints dismounted. 3 mm thick gaskets shall be used with all flanged joints. The gaskets shall be fiber reinforced rubber as approved by the Engineer-In-Charge/ the associated personnel. Counter flanges for butterfly valve shall be provided by successful bidder.

3 Fittings: All fittings should confirm to ASTM A234, GR WPB, Sch.40, ANSI B 16.9. All integral branch off shall be stub connected. All fittings shall be tested to a pressure of 15 KSC.

4 Bolts: All bolts shall be as per IS: 1367 CL 4.6 with dimensional standard as per IS:1364 and length to suit.

5 Nuts: All nuts shall be as per IS: 1367 CL 4.0 with dimensional standard as per IS:1364 and Hexagonal.

6 Gaskets: All gaskets shall be as per CAF IS:2712 GRW/3 with dimensional standard of ANSI B 16.21 150# and 3 mm thick Ring Type.

7 Butterfly Valves: All butterfly valves shall be as per IS 13095:2020 with CI body, SS-304 disc (CF8), Black Nitrile Liner, AISI 410 shaft, lever operator and PN -16 pressure rating.

8 Welding:

a) Welding operations shall confirm to Chapter V of the code of Refinery piping ANSI B31.3 - latest edition.

b) All pipe ends shall be prepared V-end & tac welded before final welding.

c) The welder will be pre-qualified by us based on the 180-degree face and 180 deg root bend test of the samples to be test welded by him in our presence and in 45-degree position and the test result will be furnished by the bidder from a Govt. approved test house.

d) All expenditure to be incurred on the pre-qualification of the welder will be borne by the bidder including the cost of samples and arrangements made thereof.

e) **Welding work will be allowed only after completion of welder test and submission of test report.**

f) Welders and welding procedures shall be certified as per section IX of ASME Boiler and pressure vessel code - latest edition.

g) **The electric current for welding will be DC straight polarity** (electrode negative).

h) All pipes shall be butt welded as per ANSI B16.25.

i) The welding electrode to be used will be only **Adore/Advani/ IOL.**

9 Testing of the Piping:
In general, tests shall be applied to piping before connection of equipment and appliances. In no case shall the piping, equipment or appliances be subjected to pressures exceeding their test ratings. The tests shall be completed and approved before any insulation is applied. Testing of segments of pipe work will be

permitted, provided all open ends are first closed, by blank offs or flanges. After tests have been completed the system shall be drained and flushed 3 to 4 times and cleaned of all dust and foreign matter.

All strainers, valves and fittings shall be cleaned of all dirt, fillings and debris. All piping shall be tested to hydraulic test pressure of at least one and half times the maximum operating pressure but not less than 10 kg/cm2 for a period of not less than 12 hours. All leaks and defects in the joints revealed during the testing shall be rectified to the satisfaction of the Engineer-In-Charge, without any extra cost.

All the piping systems shall be tested in the presence of the Engineer-In-Charge or their authorized representative. Advance notice of test dates shall be given and all equipment, labor, materials required for inspection, and repairs during the test shall be provided by the contractor.

A test shall be repeated till the entire systems are found to be satisfactory to the above authority. The tests shall be carried out for a part of work if required by Engineer-In-Charge in order to avoid hindrance in the work of the insulation contractor.

The contractor shall provide all labor and materials to make provision for removing water and throwing it at the proper place, during the testing or/and after the testing to avoid damages to employer or other contractors' properties. Any damages caused by the contractor to the employer or other contractors' properties, shall be borne by the contractor.

10 Pipe Supports: It should be made of structural steel & include G.I. clamps, anchor fasteners, wooden blocks, insulation pad. Supports will be installed at no larger than 3 meters and as per the design calculations to be furnished by you and consisting of C-channels, Angles, I section etc. of 6 mm minimum thickness. Extra support should be provided at bends & fittings like valves to avoid undue stress at pipes. The support columns have to be appropriately grouted using 1:2:4 concrete mix. The fabrication of hangers, anchors and materials shall conform to the requirements of chapter "Fabrication of pipe hangers, supports, anchors, Sway bracing and piping B31.3-latest issue.

11 Painting:

All exposed metal surface of pipes, fittings and supports must be applied with one coat of red-oxide primer & two coats of PU enamel ICI / Nerolac paint of Approved shade. The surface to be painted shall be cleaned thoroughly before painting.

Anti-Corrosive protection for all underground sections: The bituminous wrap of 3 mm thick should be hot applied for corrosion protection conforming to IS: 10221.

List of Approved Makes		
S. N.	**Item**	**Make**
1	Starters, Switch gear	Siemens, Schneider, ABB, L&T, GE
2	Single Phase Preventor	L&T, Minilac
3	ACB, MCCB, MCB	Siemens, Schenider, ABB, Legrand, Havells
4	Timer	L&T, Siemens, GE Power Control
5	Voltmeter, Ammeter	Siemens, AE, Rishabh(L&T)
6	Indicating Lamps	L&T, Siemens, Control & Switch Gear
7	Selector Switches	L&T, Siemens, Kaycee
8	Current Transformer	AE, Cappa
9	Thimbles, Lugs	Dowell
10	Power Cables	CCI, Gloster, Incab, Siemens, Universal
11	Control Cables and wires	Finolex, National, Delton, Ecko, Havels, Cord
12	Switches, Sockets	Anchor, Alstom
13	MS / PVC Conduit ISI Marked	BEC, AKG, NIC, Plaza, Kalinga, Precision, Gerard
14	MS ERW Black Pipe	Tata / Jindal Hissar.
15	Structure steel	Tata / Jindal
16	Butterfly Valves	Advance/ Audco
17	Anchor Fasteners	Cannon / Hilti / Fisher
18	Filler Wires	Adore / BOC / L&T
19	Paint / Primer / Thinner	Asian/Nerolac/Dulux
20	Glass thermometer	H.Guru / Japsin
21	Temperature sensors	Honeywell / Siemens, Johnsons

NOTE:

a) IUAC reserves the right to add or delete the approval list of makes for certain items, if found not compatible with the system. In case the make of any item is not mentioned, the same should be of well-known reputed ISI. Above makers of materials are approved subject to their meeting the tender specification & site requirements.

b) The contractor shall supply ISI marked material as per of the makes/brands indicated above. In case, the firm is not manufacturing ISI marked material for any of the brands, first quality material shall be accepted.

c) The samples of the material shall in either case have to be got approved from the Engineer-in-charge.

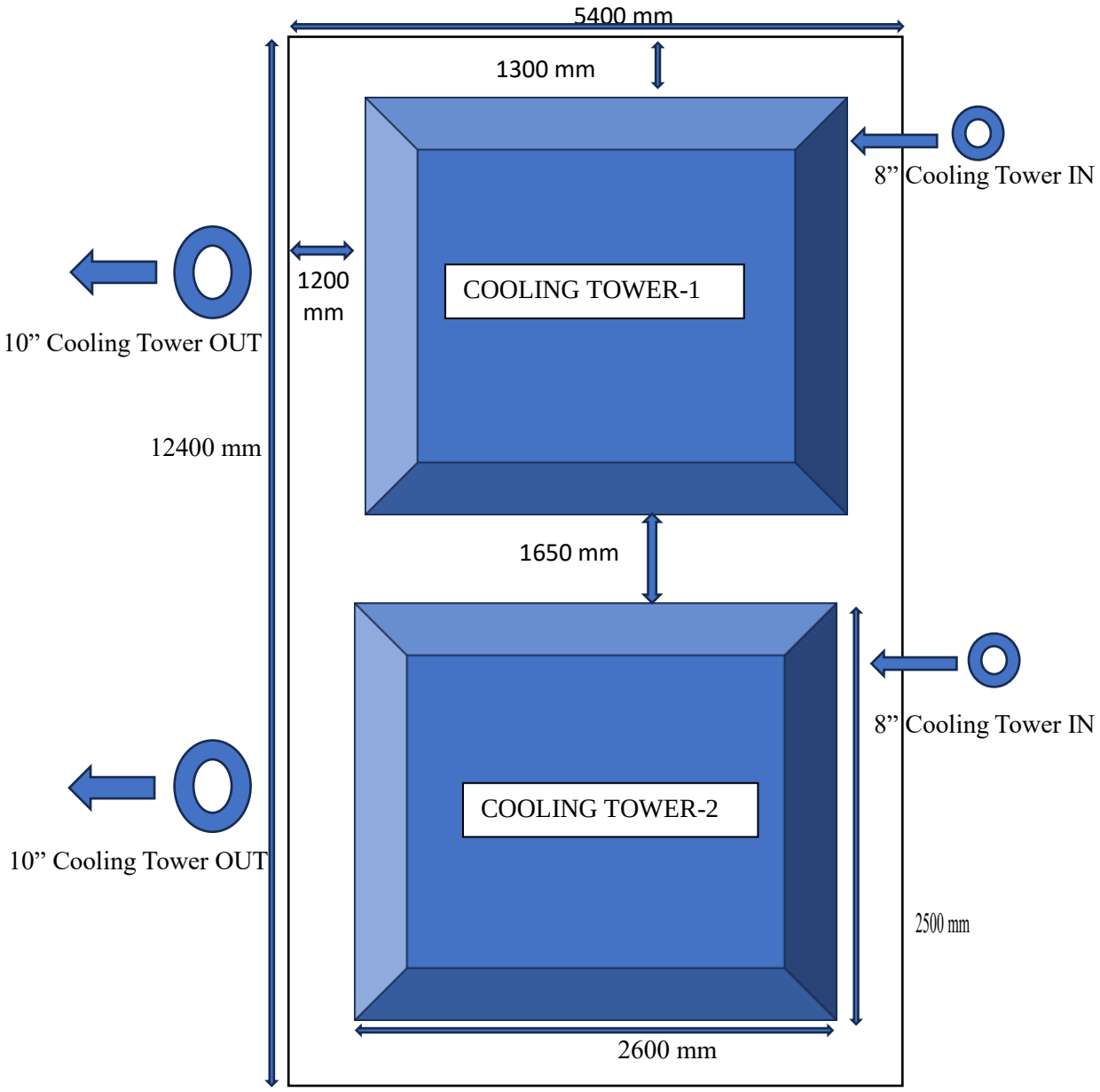
d) Material where no make/brand has been mentioned, in this case ISI marked samples shall be submitted by the contractor for approval of Engineer.

e) Contractor will be responsible to ensure the quality of products listed in approved list of makes/brands. Contractor will have to replace the defective and sub-standard materials at his own cost.

Seal & Signature of bidder/Bidder

INTER UNIVERSITY ACCELERATOR CENTRE

NEW DELHI



SCHEMATIC DIAGRAM OF EXISTING COOLING TOWERS AT SITE

NOT TO SCALE

Seal & Signature of Bidder

ANNEXURE-D

PROFILE OF THE TENDERER
(To be given on Company Letter Head)

S.N.	Description	To be filled by the bidder
1	Name of the Firm / Organization	
2	Address	
3	Telephone No. / Mobile No. & Name of the Contact Person	
4	E-mail ID	
5	Month and Year of Establishment	
6	Name of proprietor / partners / director	
7	No. of years of experience in this field, with Reference, Certificates	
8	Annual Turnover during the last three years (Enclose copies of Audited Financial Duly certified by CA)	FY 2022–23: FY 2023-24: FY 2024-25:
9	Whether the firm is a Tax Assessee? If so, please give the details of PAN and the copies of ITR files for the last three financial years	
10	No. & Copy of GST	

Signature of the Tenderer & Seal

ANNEXURE - E

BID SECURING DECLARATION FORM
(To be submitted by MSME / NSIC on Company's Letterhead)

Tender No. Date:

To:
The Director
IUAC
New Delhi-110067

I / We, the undersigned, solemnly declare that:

I / We understand that, according to your conditions of this Tender document, bids must be supported by a Bid-Securing Declaration in lieu of Bid Security Deposit.

I / We unconditionally accept the condition of this Bid Security Declaration that I / We will automatically be disqualified / suspended from bidding for any contract with IUAC, New Delhi for a period of two years starting from the last date of receipt of this bid / tender, if I / We are in a breach of our obligation(s) under the bid conditions, if I / We:

(a) withdraw / modify / amend / impair / derogate, in my respect from our Bid during the period of bid validity specified in the Tender Notice.

(b) having been notified of the acceptance of our Bid by IUAC, New Delhi during the period of bid validity,
(i) fail or refuse to execute the Contract, or
(ii) fail or refuse to furnish the Performance Security, in accordance with terms and conditions of the tender/bid.

I / We understand this Bid-Securing Declaration shall expire if I / We are not the successful Bidder, upon the earlier of
(i) our receipt of your notification of the name of the successful Bidder;
or (ii) Forty-five days after the expiration of the validity of my / our Bid.

Name and Signatures of the Bidder:
Registered Address of the Company:
Company seal

Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.

ANNEXURE-F

Price Bid/ BOQ --: SCHEDULE OF QUANTITIES

Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals for New Cooling Towers as per attached NIT & BOQ at IUAC, Aruna Asaf Ali Marg, New Delhi - 110067.

S. No	Description of the Item **(Rates shall include Dismantle, safe disposal of the existing 02 Nos of Cooling Towers and Supply, Installation, Testing and Commissioning MS piping, Electricals, Foundation and other peripherals for New Cooling Towers, all the items mentioned below and detailed scope of Work & Technical Specifications as per NIT)**	Units	Estimated Qty	Unit Rate	Total Rate (Excluding GST)
1.01	Foundation made of RCC pillars / beams of suitable size and number (Cooling tower will be installed at 3 ft high from water tank roof level) suitable for Cooling Tower as per Manufacturer's design. M.S. Tor Bar Jaal, 150 mm grid made of 8 mm minimum dia M.S. tor bars, made with water proof cement: sand: concrete mixture 1:1.5:3, properly leveled and 12.5 mm thick plastered with water proofing cement. Duly painted with water proofing paint.	Cum	4		
1.02	Steel C- Channel base, Heavy Duty Hot Deep Galvanized Steel, Size-200x75x8 mm, bottom flange shall be grouted on RCC beams with 5/8" Dia bolts, Top flange shall be bolted to Cooling tower bottom ends. Intermittent support grid of 750 mm of L- Section-50x50x6 mm shall be provided including one coat of epoxy primer and two coats of Grey Shade epoxy paint. Suitable for item no. 1.01	Kgs	2200		
1.03	Local on / off push button control of cooling tower fan motor on cooling tower for each tower including weather proof (IP55) FRP / PVC box and controls. Cable as per item rate -1.13.	Nos	2		
1.04	MS Pipe, ERW, Black, Heavy Class, 6.35 mm thick, IS 3589 including fittings like tee, bends, reducers, necessary clamps, vibration isolators but excluding valves, strainers, gauges, flanges and welding of all joints as per specifications and as required of following sizes: 8" NB Size	RM	40		
1.05	M.S. Flanges, rating – 150 lbs, ANSI B16.5, RF-serrated type including gaskets, bolts, nuts & washers etc. as required as following: 8" NB Size	Nos.	20		
1.06	Butter fly Valve shall be as per IS 13095:2020 with CI body, SS-304 disc (CF8), Black Nitrile Liner, AISI 410 shaft, lever operator and PN -16 pressure rating.	Nos.	12		

	8" NB Size				
1.07	Bituminous wrap of 3 mm thick conforming to IS: 10221 over the pipe for the following sizes: 8" NB Size	RM	100		
1.08	Anti corrosive Painting: Exposed metal surface of pipes must be applied with one coat of red-oxide primer & two coats of PU enamel paint of Approved shade. 8" NB Size	RM	55		
1.09	Wall Mounting Pipeline Support: Including MS-C-section (75 mmx 40mm x 4.5mm), U-Clamps of 8 mm diameter, Anchor fasteners (nut, bolt and washer), Rubber padding of 3 mm thick and Painting (one coat primer + two coat synthetic enamel) etc.	Kgs	300		
1.10	Star-Delta starters of suitable capacity and number suitable for the quoted cooling towers fans (2 no. of 20 HP) with MCCB, contactors, timer, O/L relay, single phase preventor, On-Off indications, push buttons, VAF Meters etc complete as required. To be replaced into the existing cubical after dismantle of old parts.	Nos	02		
1.11	Industrial Glass Thermometer, Range 0-50 Deg C, Size- 3/4" BSPT, M.S. Long Threaded Heavy-Duty Socket welded on pipe, long heavy-duty bellow made from brass bar.	Sets	8		
1.12	Power Cable XLPE insulated PVC sheathed, steel / wire armoured, cables of following sizes for electric from supply main panel to various loads including interconnections from starters to motors on suitable cable trays /supports, including suitable double compression glands, Terminal lugs, connections etc. as per specifications as required: 3 core x 16 sq mm aluminium conductor, 1.1 kV rating for cooling towers (specifications as above) in existing cable tray	RM	400		
1.13	Power Cable XLPE insulated PVC sheathed, steel / wire armoured, cables of following sizes for electric from supply main panel to various loads including interconnections from starters to motors on suitable cable trays /supports, including suitable double compression glands, Terminal lugs, connections etc. as per specifications as required:4 core x 1.5 sq mm copper conductor, 1.1 kV in existing cable tray (specifications as above)	RM	400		
1.14	Dismantle of old cooling tower of 300 TR each including foundation, electrical connections, piping disconnections etc.	Lot			
1.15	Dismantle of old M.S. Pipe of 8" NB.	RM	40		
1.16	Demolishing cement Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix concrete	Cum	1.00		

	manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - In - charge.				
1.17	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means of any width & dimension etc. including getting out, back filled & disposal of surplus earth lead upto 200 m & lift upto 1.5 m, as directed by Engineer- In-charge	Cum	18		
1.18	Re-filling available excavated earth , boulders/stones, concrete debris (excluding rock ,laying within range of 400 mtr) below plinth, , the concrete floor ,C.C pavements etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering.	Cum	18		
1.19	Providing and laying in position cement concrete of 1:2:4 (1 Cement: 2 coarse sand (zone-III) : 4 graded stone aggregate 40 mm nominal size)	Cum	2		
1.20	Brick work with common burnt clay F.P.S (non-modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1.4 (1 Cement: 4 coarse sand)	Cum	2		
1.21	Buyback of scrapped 8" NB M.S. Pipeline and disposal of same out of IUAC campus.	Kgs	800		
1.22	Buyback of 2 nos of scrapped old cooling towers of 300 TR (each) Heat Rejection capacity on as is where is basis up-to the nearest pipe flanges of cooling towers, motor termination points etc. and disposal of all the scrap out of IUAC campus. Including: 1. Structure (FRP, MS, GI etc.,) 2. FRP Frills- lot 3. Gear Box 01 each 4. Motor 15 kW, 3 phase, 01 each 5. Al Fan Assembly 01 each 6. Electrical Cable 7. Other dismantled items/debris	Lot			
	Sub Total				
	GST				
	Total				

NOTE:

1. It is entirely contractor's responsibility to take dimensions, sizes, quantity from site, design the system, and take IUAC's engineer's approval before actually bringing the material to site.

2. In case of ambiguity in specifications mentioned in BOQ/Data Sheet/ Scope of work/Technical specification, the superior of all will be applicable. IUAC Engineer-In-charge decision will be final.

3. Kindly note that final payment shall be made as per the actual quantities installed. For this a joint measurement of the IUAC and the contractor will have to be taken. The responsibility and the facilitation for taking the measurements will rest with the contractor.

4. It is confirmed that the above rates are exclusive of GST and GST extra as applicable.

5. Statutory charges, if any, must be specifically indicated by the bidder.

6. **Transportation and disposal of dismantled materials in compliance with applicable local environmental and safety regulations. The safe disposal of scrap items away from the site to be done within 15 days of dismantling work or else Rs. 10,000 per week will be levied as holding charges.**

7. IUAC will not provide any GST bill/invoice towards the Buyback of scrapped 300 TR Heat Rejection capacity (each) Cooling Towers/ piping etc. IUAC will only issue Gate Pass for buy back items. Bidder has to consider this while quoting amount against credit towards Buy back.

8. Final evaluated cost will be considered for price comparison among the participating bids only. Every bidder has to mandatorily quote all items in BOQs.

9. **The Final Bill will be settled ONLY after the safe disposal of all scrap items and debris out of IUAC Campus.**

Signature of the Bidder_____

Name_____

Seal of the Company