

AIIMS, BHUBANESWAR



AC&R DIVISION

e- NIT No. AIIMS/BBSR/ENGG/ACR/CENTRAL AC/NIT/20

NAME OF WORK: Operation & Comprehensive Maintenance Contract of High Side and Low side of HVAC System of AIIMS, Bhubaneswar.

TENDER DOCUMENT FOR e-Tendering

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AC&R Division,
Engineering Department, AIIMS
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Name of Work	:	Name of work: - Operation & Comprehensive Maintenance Contract of high side and Low side of HVAC System of AIIMS, Bhubaneswar.
NIT No.	:	AIIMS/BBSR/ENGG/ACR/CENTRAL AC/NIT/20
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“Certified that, this tender document contains 63 pages only”.

Executive Engineer (AC & R)
AIIMS, Bhubaneswar



**All India Institute of Medical Sciences,
Bhubaneswar (Odisha)-751019**

www.aiimsbhubaneswar.edu.in

NOTICE INVITING e-TENDER

The Executive Engineer (AC&R) AIIMS, Bhubaneswar on behalf of Director, AIIMS, Bhubaneswar, invites e-Tender in Two (02) Bid system (Technical & Financial) from the specialized resourceful agencies and reputed contractors of CPWD, AIIMS, Central Govt., State Govt., PSU, Autonomous Body, ESIC/Govt. Hospitals etc. having sound financial capacity, required expertise, adequate qualified & experienced personnel for handling the Comprehensive Operation and Maintenance of building HVAC System, central HVAC Plant and providing man power support for Day-to-Day Operation and Maintenance of HVAC system at AIIMS, Bhubaneswar. The bidder must be an Original Equipment Manufacturer (**OEM**) of Chiller and associated low side equipment of HVAC system **or** an Original Equipment Supplier (**OES**) of Carrier make Centrifugal Chiller i.e who has supplied, installed and maintained the same AC plant and associated machineries/equipments. Valid Documentary evidence of Manufacturer/ Original Equipment Supplier must be submitted by the bidder.

The contractor must have valid GST certification, ESI, EPF registration, professional tax registration and Labour License approval/permissions to carry out the HVAC maintenance and operation. The Vendor must have their registered office and operational setup in Bhubaneswar. Contractors participating in the bidding process need to furnish due authorization from OEMs stating that the respective OEMs will undertake back to back comprehensive AMC, Breakdown service support of all the Carrier Make Chillers and associated Chiller-VFD Panels that may be required to undertake the CAMC under the contract at AIIMS, Bhubaneswar as per the scope of works defined in the NIT. The Authorization should be specific indicating the NIT number.

(a)	Name of Work	Operation & Comprehensive Maintenance Contract of high side and Low side of HVAC System of AIIMS, Bhubaneswar.
(b)	NIT No.	AIIMS/BBSR/ENGG/ACR/CENTRAL AC/NIT/20
(c)	Estimated Cost	₹ 4,82,40,416/- (Rupees Four Crores Eighty-two Lakhs Forty Thousand Four Hundred Sixteen only including GST)
(d)	Period of Contract	2 years (from the date of commencement of work)
(e)	Earnest Money Deposit (EMD)	2 % of estimated Cost i.e ₹ 9,64,808/-.
(f)	Performance Security (Bank Guarantee)	3 % of Tendered Cost.
(g)	Security Deposit	2.5 % from bills.
(h)	Tender documents will be Issued From	Download from Institute Website. (i.e. www.aiimsbhubaneswar.edu.in, www.tenderwizard.com/www.eprocure.gov.in).
(i)	Pre-bid meeting	On 21/10/2022 at 15:30 Hours in the chamber of Executive Engineer (AC&R), AIIMS, Bhubaneswar
(j)	Last Date, Time & Place of Submission	On 31/10/2022 at 11:00 Hours through online.
(k)	Date, Time for opening of Tender (Technical Bid)	On 02/11/2022 at 15:30 Hours.
(l)	Time and date of opening of Online Financial Bids	To be intimated later through website.

1. The time of submission of e-Tender is **31/10/2022 by 11:00 Hours**. The indenting Bidder must read the Terms & conditions of AIIMS, Bhubaneswar carefully. He/They should only submit his/her/their bid if he/she/they consider himself/themselves eligible and he/she/they is/are in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The Bid documents consisting of specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of the contract & special conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.aiimsubhubaneswar.edu.in or www.tenderwizard.com/AIIMSBBSR

4. **Pre-qualification Criteria** : Intending Bidder(s), fulfilling eligibility criteria as mentioned above may submit their bid provided they have definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority of having satisfactorily completed similar works in last 07 years. The similar work shall mean :

“Providing Operation and Annual Maintenance Contract services of central HVAC system with installed capacity of Chillers not less than 1500 TR at same site with maintenance of Chilled Water Pumps, Condenser Pumps, Cooling Towers, Chiller Plant Maintenance AHUs/ CSUs/FCUS and associated controls & installations.

OR

Supply, Installation, Testing and Commissioning of at least 1500 TR installed capacity of Water Cooled Central AC Plant with at least 1 No. Chiller of minimum capacity of 725TR along with chilled water pipelines, chilled water pumps, condenser pumps, cooling towers, Chiller plant manager, Ozone Generator, AHUs/ CSUs/FCUS and associated controls & installations.

Copy of work order(s) & respective satisfactory completion certificate(s) must be furnished by the bidder in Technical Bid in support of eligibility.

5. **Financial Eligibility Criteria**. Intending Bidder(s), who fulfil following requirement shall be eligible to apply: -
 - (a) Three (03) similar completed works each of value **not less than 40%** (i.e. for ₹ 1,92,96,166/-) of estimated cost put to tender or Two (02) similar completed works each of value **not less than 60%** (i.e. ₹ 2,89,44,250/-) of estimated cost put to tender or one (01) similar completed work of value **not less than 80%** (i.e. ₹ 3,85,92,333/-) of estimated cost put to tender in **last 07 (Seven) Years ending 31st March 2022**.
 - (b) The Bidder should have up to date registration with Employee Provident Fund (EPF) Commissioner and Employee State Insurance (ESI) Corporation.
 - (c) The bidder should have positive net worth and should not have incurred loss in last 03 (Three) Years ending i.e. by **31st March 2022**, duly certified by Chartered Accountant.
 - (d) The experience of similar work should be from Central Govt., State Govt., PSU, Autonomous Body, Govt. Hospitals.
 - (e) The bid document consisting of plans, specifications, the schedule of quantities of the various type of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents.
 - (f) Conditional Bids shall not be considered and will be out-rightly rejected at the very first instance.
 - (g) **Average Annual Financial**, the turnover during the last 3 years, ending **31st March 2022** should be at least 30% of the estimated cost (i.e. ₹ 1,44,72,125/-).

Executive Engineer (AC & R)
AIIMS, Bhubaneswar

INFORMATION TO BIDDERS FOR e-TENDERING

1. The intending bidder must read the terms and conditions of Tender document carefully. He/they should submit his/their bid if he considers himself eligible and he is in possession of all the certificates / documents required.
2. Information and Instructions for bidders for e-tendering posted on website shall form part of bid document.
3. The bid document consisting of NIT, General Conditions of Contract, Special Conditions of Contract, Scope of Work, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from www.aiimsbhubaneswar.edu.in or www.tenderwizard.com/AIIMSBBSR free of cost.
4. **Preparation & Submission of Tender through Online.**
The Tender should be submitted in 02 (Two) parts i.e. Technical Bid and Financial Bid Respectively. The Technical Bid should be sent by the Bidder(s) through online as **“Technical Bid” for Name of work: Comprehensive Maintenance Contract of High side and Low side of HVAC System of AIIMS, Bhubaneswar.**
5. For e-tendering of this tender, AIIMS has engaged e-portal maintained by M/s ITI Limited, Bhubaneswar. Intending bidders shall have to register with M/s ITI Limited, Bhubaneswar to participate in the tendering process. For details kindly visit website <http://www.tenderwizard.com/AIIMSBBSR> or contact **Shri SANJEEB MAHAPATRA (Mobile No. 7377708585)**. If needed they can be imparted training on online bidding process as per details available on the website.
6. The intending bidders must have valid class-III digital signature to submit the bid.
7. The bid can be submitted only after depositing e-tender Processing Fee in favour of ITI Limited and uploading the mandatory scanned documents as specified within the period of bid submission.
8. Bidder(s) must ensure to quote rate of each item. The column meant for quoting rate in figures appears in dark yellow colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO). After submission of the bid online the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
9. The bidders are advised to take into account the Amendments/ Corrigendum published time to time before submission of their bids against this tender. If any bidder has already submitted his/her bid, then he/she may resubmit his/her bid taking into account the Amendments/ Corrigendum. After submission of bid online, it can be revised any number of times before specified time on last date of submission of bid. While submitting the revised bid, bidder can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
10. Financial bids shall be opened online only for bidders for whom EMD and other mentioned documents are found in order and who are found to be eligible to bid for work. On opening date, the bidder can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
11. If the contractor is found ineligible after opening of bids, his bid shall become invalid.
12. If any discrepancy is noticed between the eligibility documents as uploaded at the time of submission of bid and hard copies as submitted physically by the bidder, the bid shall become invalid.

13. List of mandatory Eligibility Documents to be scanned and uploaded within the period of bid submission: -

- (a)** Appendix 'A to B' duly filled in (Pages 16 & 17 ref.) and signed with stamp.
- (b)** Certificates of Work Experience & Completion Certificate of Similar Work from Client not below the Rank of Executive Engineer or equivalent, as mentioned in Ser. No. - 4, Page No. - 4 refer under Eligibility Criteria.
- (c)** Certificate of Registration for GST and acknowledgement, up to date filed return if required.
- (d)** Copies of PAN Sheet.
- (e)** Copies of Balance Sheets.
- (f)** Copy of Affidavit.
- (g)** Copies of ESI Registration (enclose latest challan copy)
- (h)** Copies of EPF Registration (enclose latest challan copy)
- (i)** The Bidder(s) should have their Registered Office/Branch in Bhubaneswar. If not, an Office should be opened in Bhubaneswar within 15 **(Fifteen)** Days of the issue of LoA. Details of Address Proof of Office located at Bhubaneswar should be given to EE(AC&R).
- (j)** Declarations to be given by the Tenderer(s) (as per Page 11).
- (k)** Each page of the e-tender documents should be duly signed with seal otherwise the bid shall become invalid.
- (l)** Scanned copy of DD/BG for EMD to be uploaded with Technical Bid.
- (m)** Valid Company registration copy

14. The Technical Bid(s) shall be opened first by the Committee on 02/11/2022 by 15:30 Hours. The opening of Financial Bid(s) (whose Technical Bid found to be eligible) will be intimated later through web site. After the evaluation of the Bid(s) AIIMS, Bhubaneswar will award the contract to the Lowest Evaluated Responsive Tenderer. Conditional Bid(s) will be treated as unresponsive and will be rejected.

15. Information & Instruction for Contractor will form a Part of NIT.

Executive Engineer (AC & R)
AIIMS, Bhubaneswar

E-TENDERING INSTRUCTIONS TO BIDDERS

General

The Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as given in this Tender Document. Submission of Online Bids is mandatory for this Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Suppliers / Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, AIIMS BHUBANESWAR has decided to use the portal www.tenderwizard.com/AIIMSBBSR through an ASP, M/s. ITI Ltd., Bhubaneswar.

Instructions.

1. **Tender Bidding Methodology.** Two Stage Online Bidding.
2. **Broad outline of activities from Bidders prospective:**
 - (a) Procure a Class III Digital Signature Certificate (DSC).
 - (b) Register on the e-Procurement portal www.tenderwizard.com/AIIMSBBSR.
 - (c) Create Users on the above portal.
 - (d) View Notice Inviting Tender (NIT) on the above portal.
 - (e) Download Official Copy of Tender Documents from the above portal.
 - (f) Seek Clarification to Tender Documents on the above portal. View response to queries of bidders, posted as addendum, by AIIMS, Bhubaneswar.
 - (g) Bid-Submission on the above portal.
 - (h) Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Technical Part.
 - (j) Post-TOE Clarification on the above portal (Optional) – Respond to AIIMS, Bhubaneswar's Post-TOE queries.
 - (k) Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Financial Part (Only for Technical Responsive Bidders).

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the above portal.

3. **Digital Certificates.** For integrity of data and authenticity / non-repudiation of electronic records, and to be complaint with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class III, issued by a

Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

4. **Registration.** To use the Electronic Tender portal www.tenderwizard.com/ AIIMSBBBSR, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons vis-à-vis Authorized Signatory who will be the main person coordinating for the e-tendering activities. In the above portal terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and follow further instructions as given on the site. Pay Annual Registration Fee as applicable. (Rs 2000+ GST as applicable)

Note.: After successful submission of Registration details and Annual Registration Fee, please contact to the Help desk of the portal to get your registration accepted/activated.

- (a) The Bidder must ensure that after following above, the status of bid submission must become – “Submitted”.
- (b) Please take due care while scanning the documents so that the size of documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However, it shall be sole responsibility of bidder that the uploaded documents remain legible.
- (c) It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
- (d) The Financial part/BOQ may be downloaded and rates may be filled appropriately. This file may also be saved in a folder on your computer. Please don't change the file names & total size of documents (Preferably below 5 MB per document) may be checked.

5. **Bid submission.** The entire bid-submission would be online on the Tender wizard portal i.e. <https://www.tenderwizard.com/AIIMS>, Bhubaneswar.

6. **Broad outline of submissions are as follows: -**

- (a) Submission of Bid Parts (Technical & Financial).
- (b) Submission of information pertaining to Bid Security.
- (c) Submission of signed copy of Tender Documents/Addendums.

The TECHNICAL PART shall consist of Electronic Form of Technical Main Bid and Bid Annexure. Scanned/Electronic copies of the various documents to be submitted under the Eligibility Conditions, offline submissions, instructions to bidders and documents required to establish compliance to Technical Specifications and Other Terms & Conditions of the tender are to be uploaded.

The FINANCIAL PART shall consist of Electronic Form of Financial Main Bid and Financial Bid Annexure, if any. Scanned copy of duly filled price schedule (Section VII) for both packages

are to be uploaded. If required, additional documents in support of taxes, quoted duties etc may also be uploaded.

7. Tender Processing Fee. The bidder has to pay processing fee (0.1% of ECV + GST as applicable (Min. 750/- & Max 7500/- + GST as applicable)) through online (Credit card/ Debit card/ Net Banking), when participating in the e-tender.

8. Public Online Tender Opening Event (TOE). The e-Procurement portal offers a unique facility for 'Public Online Tender Opening Event (TOE). Tender Opening Officers as well as authorized representatives of bidder(s) can attend the Public Online Tender Opening Event (TOE) from the comfort of their office(s). For this purpose, representatives of bidders (i.e. Supplier organization) duly authorized. Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on the portal. As soon as a Bid is decrypted, the salient points of the Bids are simultaneously made available for downloading by all participating bidders. The medium of taking notes during a manual 'Tender Opening Event' is therefore replaced with this superior and convenient form of 'Public Online Tender Opening Event (TOE)'. The portal a unique facility of 'Online Comparison Statement' which is dynamically updated as each online bid is opened. The format of the Statement is based on inputs provided by the Buyer for each Tender. The information in the Comparison Statement is based on the data submitted by the Bidders. A detailed Technical and / or Financial Comparison Statement enhance Transparency. Detailed instructions are given on relevant screens. The portal has a unique facility of a detailed report titled 'Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/Downloading'. There are many more facilities and features on the portal. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

Important Note. In case of internet related problem at a bidder's end, especially during 'critical events' such as – a short period before bid-submission deadline, during online public tender opening event it is the bidder's responsibility to have backup internet connections. In case there is a problem at the e-procurement / e-auction service- provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of AIIMS, BBSR by the bidders in time, then AIIMS, Bhubaneswar will promptly reschedule the affected event(s).

9. Other Instructions. For further instructions, the vendor should visit the home-page of the portal. The complete help manual is available in the portal for Users intending to Register / First-Time Users, Logged-in users of Supplier organizations. Various links are also provided in the home page.

Important Note.: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups and minimize teething problems during the use of the said portal.

The following 'FOUR KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to: -

1. Obtain individual Digital Signature Certificate (DSC) well in advance of your first tender submission deadline on the portal.

2. Register your organization on the portal well in advance of your first tender submission deadline on the portal
3. Get your organization's concerned executives trained on the portal well in advance of your first tender submission deadline on the portal
4. Submit your bids well in advance of tender submission deadline on the portal (There could be last minute problems due to internet timeout, breakdown etc).

While the first three instructions mentioned above are especially relevant to first-time users on the portal, the fourth instruction is relevant at all times. Minimum Requirements at Bidders end Computer System with good configuration (Min P IV, 1 GB RAM, Windows XP) Broadband connectivity. Microsoft Internet Explorer 8.0 or above. Digital Certificate(s) Vendors Training Program Necessary training to each and every registered bidder under this portal shall be impacted by the ASP, M/s. ITI, Bhubaneswar, if required, before participation in the online tendering.

For any further assistance, please contact **Mr Swadesh Bal (07008064095/ 07377708585)**, Helpdesk-011-49424365 ITI email ID for mailing communication: - twhelpdesk404@gmail.com/ twhelpdesk680@gmail.com/ twhelpdesk605@gmail.com.

DECLARATIONS TO BE GIVEN BY THE TENDERER(S)

It is to certify that: -

(a) I /We have gone through GCC of CPWD up to latest correction as available on website of CPWD/www.tenderwizard.com / www.aiimsbhubaneswar.nic.in or in the office of Superintendent Engineer and I/We agree with the terms and conditions of it and understood that it will form part of the agreement.

Date: _____

Signature of the Tenderer(s)

(b) "I, S/o Shri resident of hereby certify that none of my Relative(s) as defined in Paragraph 14 of CPWD W-6 is/are employed in AIIMS, Odisha. In case at any stage, it is found that the information(s) given by me/us is/are false/incorrect, AIIMS shall have the absolute right to take any action as deemed fit without any prior intimation to me".

Date: _____

Signature of the Tenderer(s)

NOTE: - (To be certified by all the partners in case of partnership firms, by all the directors in case of companies).

(c) "I/We undertake and confirm that eligible similar Work(s) has/have not been got executed through another contractor on back to back basis. Further, it is stated that, if such a violation comes to the notice of Department, than I/We shall be debarred for bidding in AIIMS in future forever. Also, if such a violation comes to the notice of AIIMS, Bhubaneswar before date of start of work, the Superintending Engineer shall be free to forfeit the entire amount of Performance Guarantee".

Date: _____

Signature of the Tenderer(s)

GENERAL RULES, DIRECTIONS & CONDITIONS

The responsibility of execution of maintenance defined in the scope of work shall lie with main contractor only. The tenderer may associate with him, agencies of the appropriate eligibility to tender for each of specialized nature of items / works individually. Such works may be got executed only through associated agencies specialized in these fields. The tenderer whose tender is accepted shall indicate the name(s) of his associated specialized agencies those fulfilling the eligibility criteria laid down below after award of work and before commencement of such items / work for the approval of NIT approving authority, whose decision shall be final and binding. But AMC bills can only be submitted by the main contractor. No payment will be admissible to any of the associate agencies by AIIMS, Bhubaneswar. If the tenderer himself fulfils the eligibility criteria laid down below for associated specialized agencies, then the tenderer shall not require to associate with himself the associated specialized agency.

All Electrical/HVAC works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1956 amended up to date and as per ISHARE. The works shall also conform to relevant Indian Standard Codes of Practice for the type of work involved. In all electrical installation works, relevant safety codes of practice shall be followed. Unless / otherwise specified, the work shall be carried out as per CPWD General Specifications for HVAC/ Electrical Works (Internal & external) as applicable as per the instruction of the Engineer-in-Charge or his authorized representative. Good workmanship is an essential requirement to be complied with. The entire work shall conform to sound engineering practice involving skilled workers and the work shall be carried out under the direct supervision of a highly experienced licensed Supervisor. General specification covers supply of materials, fabrication, and erection, testing and commissioning of the work as per BOQ. Applicable provisions and conditions of contract shall govern the work under the Section. However competent authority of AIIMS, Bhubaneswar reserves all the right for addition /deletion/ alteration/ deviation of any of the item(s) in the schedule of quantity without any prior notice to the tenderer.

1. **Earnest Money Deposit:** The bidder shall be required to submit the Earnest money deposit (EMD) for an amount of **Rs.9,64,808/-** by the way of DD/BG only. Scanned copy of DD/BG must be uploaded /attached with Technical Bid. The EMD of successful bidder shall be returned after successful submission of BG / Annual Deposit and for unsuccessful bidders it would be returned afterward of the contract. Bids received without DD for EMD will be rejected.
2. **Performance Bank Guarantee.** The successful contractor will be required to furnish a **Performance guarantee of 03% (Three Percent) of Contract Value after receiving notification of award in the form of Fixed Deposit Receipt or Bank Guarantee from any Nationalized Bank duly pledged in the name of the "All India Institute of Medical Sciences, Bhubaneswar"** which shall be kept valid for a period of 60 days beyond completion of all the contractual obligations. The Performance Guarantee can be forfeited by order of this Institute in the event of any breach or negligence or non-observance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. In case the contractor fails to deposit the said Performance Guarantee within the period including the extension period if any, he/she will be debarred for a period as decided by the Engineer In charge.
3. The Tender paper/documents can be seen/downloaded from Official website & submitted through on-line. For any query, Executive Engineer (AC& R), Phone: 9437317123, AIIMS, Bhubaneswar, may be contacted.
4. The Director, AIIMS, Bhubaneswar does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

5. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
6. The Director, AIIMS, Bhubaneswar reserves to himself/herself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
7. The contractor(s) shall not be permitted to bid for works in the AIIMS, Bhubaneswar responsible for award and execution of contracts, in which his/their near relative is posted as an officer in any capacity between the grades of Superintending Engineer and Assistant Engineer (both inclusive). He/They shall also intimate the name of person(s) who are working with him/them in any capacity or are subsequently employed by him/them and who are near relatives to any gazetted officer in the AIIMS, Bhubaneswar. Any breach of this condition by the contractor(s) would render him liable to be removed from the approved list of contractors of this Department.
8. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
9. The bid for the works shall remain open for acceptance for a period of **90** days from the date of opening of bids.
10. This notice inviting bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of "The Notice Inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and rate quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
11.
 - (a) **Security Deposit equal to 2.5 % of the Final Value will be deducted from the Bills of the Contractor.**
 - (b) **The Income Tax as applicable shall be deducted from the Bill unless exempted by the Income Tax Department.**
 - (c) **The quoted Rates shall be inclusive of GST.**
 - (d) **Labour CESS @ 01% will be deducted from the Bill.**
 - (e) **Water charges @ 1% of the gross bill amount will be deducted if water supply is taken from AIIMS departmentally.**
 - (f) **Electrical charges as per actual meter reading shall be deducted from the bill. If connection is taken directly without installation of meter with prior permission from Executive Engineer (Electrical), then amount as per the usage shall be deducted from the gross bill amount as suggested by Executive Engineer (Electrical).**
12. **List of Documents to be submitted along with the Technical Bid.**
 - (a) Scanned copy of DD/BG for EMD to be uploaded.
 - (b) Page No-16 & 17 (Appendix A & B) duly filled in.
 - (c) Certificates of Work Experience & Completion Certificate of Similar Work from Owner.
 - (d) Certificate of Registration for GST and acknowledgement of up to date filed return if required.
 - (e) All documents as per Ser. No. 12 (a) to (m) (Page - 06 refers).

13. Goods and Services Tax (GST).

- (a) **GENERAL REMARKS ON TAXES & DUTIES:** In view of GST Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST/VAT, Service tax Entry Tax and other indirect taxes and duties have been submerged in GST. Accordingly, reference of Excise Duty, service Tax, VAT, Sales Tax, Entry or any other form of indirect Tax except of GST mentioned in the bidding document shall be ignored.
- (b) Bidders are required to submit copy of the GST Registration certificated while submitting the bids wherever GST (CGST & SGST/UTGST or IGST) is applicable.
- (c) "GST shall mean Goods and services Tax charged on the supply of material(s) and services. The term 'GST' shall be construed to include the integrated Goods and Services Tax (Hereinafter referred to as "IGST") or central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and services Tax (Hereafter referred to as "SGST") or union Territory Goods and services Tax (hereinafter referred to as "UTGST").
- (d) Quoted price/rate(s) should be inclusive of all taxes and duties, except GST (i.e. IGST or CGST and SGST /UTGST applicable in case of interstate supply or intra state supply respectively and cess on GST if applicable) on the final service. However, GST rate (including cess) to be provided in the respective places in the price Bid. Please note that the responsibility of payment of GST (CGST & SGST or IGST or UTGST) lies with the supplier of Goods/services (service provider) only. Supplier of Goods/Service (Service provider) providing taxable service shall issue an invoice/Bill, as the case may be as per rules/regulation of GST. Further, returns and details required to be filled under GST laws & rules should be timely filed by supplier of Goods /services (Service provider) with requisite details.
- (e) The contractor(s) must be submitted GST Challan copy in original duly signed with stamp of firm, against this work before releasing Security Deposit (SD) money.

14. The Agency shall be solely responsible for compliance to the provisions of various Labour and industrial laws, such as, wages, allowances, compensations, EPF, Bonus, Gratuity, ESI etc. relating to personnel deployed by it at AIIMS, Bhubaneswar site or for any accident caused to them and the institute shall not be liable to bear any expense in this regard. The Agency shall make payment of wages to workers engaged by it by the stipulated date irrespective of any delay in settlement of its bill by AIIMS, Bhubaneswar for whatever reason. The Agency shall also be responsible for the insurance of its personnel. The Agency shall specifically ensure compliance of various Laws / Acts, including but not limited to with the following and their re-enactments / amendments / modifications: -

- (a) The Payment of Wages Act 1936.
- (b) The Employees Provident Fund & MP Act, 1952.
- (c) The Contract Labour (Regulation) Act, 1970.
- (d) The Payment of Bonus Act, 1965.
- (e) The Payment of Gratuity Act, 1972.
- (f) The Employees State Insurance Act, 1948.
- (g) The Employment of Children Act, 1938.
- (h) The Motor Vehicle Act, 1988.
- (j) Minimum Wages Act, 1948.

15. Breach of Terms and Conditions : Non-compliance of any term and conditions enumerated in the contract shall be treated as breach of contract or in case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to reject the bid at any stage without assigning any reason thereof and nothing will be payable by AIIMS, Bhubaneswar. The conditions

beyond contractors control such as, but not limited to , war, strikes, fire, flood, cyclone, earthquake, governmental restrictions or power failures, damages etc., shall not be deemed a breach of contract.

16. **Termination of Contract:** AIIMS, Bhubaneswar would have the right to terminate the contract, in case the work performance is not up to the standard, or in case there is any violation of AIIMS, Bhubaneswar rules & regulations, or if there is any lapse in compliance of any labour legislation, or if there is any incident of indiscipline on the part of the Tenderer or his staff and the agreement may be terminated. The decision of AIIMS, Bhubaneswar's management in this regard would be final and binding on the Tenderer. In such an event, AIIMS, Bhubaneswar shall have the right to engage any other tenderer to carry out the task.
17. **Arbitration.** The Arbitration shall be held in accordance with the provision of the Arbitration and conciliations Act, 1996 and the venue of arbitration shall be at Bhubaneswar. The decision of the Arbitrator shall be final and binding on the both parties.
18. **Dispute Settlement.** It is mutually agreed that all differences and disputes arising out of or in connection with this agreement shall be settled by mutual discussions and negotiations if such disputes and differences cannot be settled and resolved by discussions and negotiations then the same shall be referred to the sole Arbitrator appointed by the Director, AIIMS, Bhubaneswar whose decision shall be final and binding on both the parties. The contract shall be governed by laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/ processing.
19. **Legal Jurisdiction:** The agreement shall be deemed to have been concluded in Bhubaneswar, Odisha and all obligations here under shall be deemed to be located at Bhubaneswar, Odisha and court within Bhubaneswar, Odisha will have jurisdiction to the exclusion of the other courts.
20. **Force Majeure:** If any time during the subsistence of contract performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility ,act of public enemy ,civil commotion ,sabotage ,fire ,floods, exception ,epidemics, or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by second party to the client within 21 days from the date of occurrence thereof , neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance and deliveries have been so resumed or not shall be final and conclusive.
21. The Lowest Bidder will be decided as per the Commutation Rates quoted by the Bidder for individual item.

Executive Engineer (AC & R)
AIIMS Bhubaneswar

FORM FOR DETAILS OF ALL WORKS OF SIMILAR CLASS COMPLETED DURING THE LAST 07 (SEVEN) YEAR

S . N	Name of work/ project	locat ion	Owner or Sponsor ing Organiz ation	Cost of work in lakhs	Date of Comme ncemen t as per Contrac t	Stipulate d date of Completi on	Actual date of Comple tion	Litigation/Ar bitration pending/in progress with details	Remarks
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1									
2									
3									
4									
5									
6									

(Authorized Signature of the Bidder with Seal)

FORM FOR DETAILED INFORMATION BY BIDDER

Name of Firm/Contractor/Supplier	:
Complete Address and Telephone Number	:
Name of Proprietor/Partner/Managing Director/Director	:
Phone Number	:
Mobile Number	:
e-Mail ID	:
Name and address of service centre nearby Bhubaneswar	:
Whether the firm is a registered Firm (Yes/No. Attach Copy of Certificate)	:
PAN Number. (enclose the attested copy of PAN Card)	:
GST Number (enclose the attested copy of GST Certificate)	:
Whether the firm has Uploaded the Bank Draft/Pay Order/ Banker's Cheque of Earnest Money Deposit (EMD).	:
Whether the Firm/Agency is signed each and every page of Tender/NIT	:
EPF No. (Enclose the attested copy of EPF Registration Certificate)	:
ESI Code.	:
Any other information, if necessary.	:

(Authorized Signature of the Bidder with Seal)

All India Institute of Medical Sciences
Engineering Branch, Bhubaneswar (Odisha)-751019
www.aiimsbhubaneswar.edu.in

Percentage Rate Tender / Item Rate Tender & Contract for Works

E-Tender for the work of: Operation & Comprehensive Maintenance Contract of High side and Low side of HVAC System of AIIMS, Bhubaneswar.

To be submitted online by:

- (a) Time and date of online Opening of Technical Bids. : **02/11/2022 (15:30 Hours).**
- (b) Time and date of opening of Online Financial Bids. : **To be intimated later through website.**

T E N D E R

I/We have read and examined the notice inviting tender, schedule along with Appendices 'A' to 'B' as per Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special Conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

If I/We, fail to furnish the prescribed Performance Guarantee within prescribed period, I/We agree that the said Director, AIIMS, Bhubaneswar or his successors, in office shall without prejudice to any other right or remedy, be at liberty to debar me for 01 (One) year. Further, if I/We fail to commence work as specified, I/We agree that Director, AIIMS, Bhubaneswar or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to suspend me for one year. The said performance guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in the tender form. Further, I/We agree that in case of non-submission of Performance Guarantee as aforesaid, I/We shall be debarred for participation for one year in the tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of AIIMS, Bhubaneswar, then I/We shall be debarred for tendering in AIIMS, Bhubaneswar in future forever. Also, if such a violation comes to the notice of AIIMS, Bhubaneswar before date of start of work, the Administrative Officer shall be free to forfeit the entire amount of Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated: * _____

Signature of Contractor(s)
with full Postal Address

Witness: *

Address: *

**(* To be filled in by
the Contractor.)**

Occupation: *

SPECIAL CONDITIONS OF CONTRACT (SCC)

1.0 SITE VISIT:

- 1.1 AIIMS, Bhubaneswar may conduct joint site visit, pre-bid and/or post-bid meeting. The bidder should attend the site visit as well as the pre-bid meetings, if any.
- 1.2 Bidders are strongly advised to inspect and assess the site conditions and its surroundings and satisfy themselves before submitting their bids. A site visit shall be conducted for interested eligible bidders. The prospective bidders are advised to depute their technical experts with authorization letter to visit, assess and examine the conditions, requirements, nature & quantum of work and locations of installations which may be necessary for the purpose of bidding and submit a realistic offer for the successful execution of the work. The successful bidder may be required to take up initial repair works if any after finalization of tender. In general, they shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A Bidder shall be deemed to have full knowledge of the site whether he/she inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Bidders shall submit a realistic offer for the execution of the work at their own cost without any liability on AIIMS.
- 1.3 Submission of a bid by a bidder implies that he has read the Tender document and has made himself aware of the terms & conditions and scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of work.

2.0 BID PRICES:

- 2.1 The Bidder shall indicate on the prescribed Bill of Quantity, the landed prices of all the goods and services at AIIMS, Bhubaneswar in accordance with terms & conditions and scope of work of Tender Document. It must include all the taxes, duties, fees, all types of Cess, insurance, transportation, packing, forwarding, administrative charges/ contractor overhead and profit amount and all other incidentals required for execution of the contract in all respect. Variation in taxes due to change in Govt. Regulations only shall be considered, provided such change has taken place within the period from 28 days prior to the last date of bid submission to the original completion date of the Contract.
- 2.2 The rates quoted by the contractor shall be net so as to include all requirements described in the contract document and no claim whatsoever due to fluctuations in the price of the material and labour charges.
- 2.3 The Contractor may arrange way bill at his cost for inter-state transportation of all the materials required for successful execution of the work.

3.0 PERIOD OF CONTRACT:

The period of contract shall be 2 years from the date of commencement of work. The contract can further be extended at the discretion of the AIIMS, Bhubaneswar and upon mutual consent of both the parties, subject to satisfactory performance by the contractor with same terms & conditions and rate of 2nd year of the contract.

4.0 DATE OF COMMENCEMENT & COMPLETION OF WORK:

The Contractor shall commence the work within 30 (Thirty) days from the date of issue of LoA. However, the Contractor has to furnish the Security Deposit within this period so as to enable issue of work order prior to commencing the work at site.

5.0 PAYMENT TERMS:

The Contractor shall submit bill in duplicate at the end of every quarter. The pre-receipted bill in duplicate along with all supporting documents as required under this contract and prescribed check list shall be submitted to the Engineer-In-charge. The payment shall be made as below.

97.5% payment shall be made on quarterly basis provided that the bill submitted should be in order in all respect and the balance 2.5% of the bill shall be retained as Performance Security which shall be released after successful completion of the contract. GST and other taxes applicable shall be recovered/paid from the contractor's bill as per Govt. of India /AIIMS rules.

Vendor shall submit following documents along with the bill for payment:

- (a) Complain reports duly signed by the user and duly verified by the JE concerned.
- (b) Service reports of PMS work during the Quarter verified by the JE concerned.
- (c) Wage, EPF & ESI Statement of workmen during the Quarter.
- (d) Material Test Certificate
- (e) Warranty/Guarantee Certificate
- (f) Colour Photos for Executed work on glossary paper
- (g) Testing & Commissioning Certificate.
- (h) GST return up to date Voucher.
- (i) Bank Account Details
- (j) The documentary evidence in support of payment made to his fellow workmen for the period duly certified by the EIC.
- (k) An Undertaking that all statutory rules and regulation have been followed.
- (l) No Claim certificate regarding work to be submitted during Final Bill.
- (m) Attendance register copy.
- (n) 36(i) Certificate for engagement of Technical Staff to be submitted with Final Bill.

5.1 Running Bill Payment: The Running payment for the work shall be released Quarterly by AIIMS, BBSR. The security deposit @ 2.5 % of Gross amount of the bill shall be deducted from the running bills, which shall be released after successful completion of Defects liabilities period i.e 1 year from the date of completion of work , without any interest thereon .

5.2 Final Bill Payment: The agency shall submit final bill along with all the documents related with PF, ESIC to AIIMS, BBSR in addition to all maintenance schedule registers, documents etc. (as per Clause 5) related to the work. The agency also formally handover all the equipment's in good working condition, without any damage as handed over to them by AIIMS, BBSR.

6.0 PENALTY CLAUSE:

Availability factor of HVAC system as per norms on demand, maintaining the rated capacity, up keeping of proper cleanliness/housekeeping, carrying out proper maintenance, attending breakdown in time (rectification of faults) and following the safety aspects, statutory norms and regulations are the essence of this contract. Therefore, the Contractor shall meet the performance parameters / norms / obligations pursuant to the contract. Failure on the part of the Contractor to comply with the requirements shall attract a deduction on account of underperformance as mentioned below:

Minor Breakdown: On getting the minor breakdown complain or failure of the HVAC system, Contractor's maintenance team must response within the **3 Hours** and carry out necessary repairs to restore the system in normal condition, falling which penalty of **₹1,000 per day upto 10% of the CMC contract value** will be recovered from the contractor.

Major Breakdown: On getting the major breakdown complaint or failure of the HVAC system, Contractor's maintenance team must response within the **3 Hours** and informed the concern AE/JE immediately regarding the complaint. After joint inspection with concern AE/JE, the complaint must sort out within the **72 Hours** or **timeline given by the concern AE/JE according the nature of complain**, the necessary repairs must be carried out to restore the system in normal condition, falling which penalty of **₹3,000 per day upto 10% of the CMC contract value** will be recovered from the contractor.

For any major repair or over-hauling work, the contractor shall inform in advance to the Executive Engineer before 72 hours of starting the work.

6.1 DEDUCTION FOR POOR OPERATION and/or MAINTENANCE:

Poor Operation and / or Maintenance shall mean

- i) Operation of machine(s)/equipment(s) in abnormal condition(s).
- ii) Compromising in safety of machines by repeated & prolonged by-passing of safety devices, field devices, and monitoring/controlling devices during operation.
- iii) Tampering of Operational limits of the machine/equipment.
- iv) Consecutive failure of any system / equipment or any component / sub-system i.e. Repetition of a fault for the same reason.
- v) Maintenance not following the sound engineering practice.
- vi) Non availability of any component in position which are available at the time of taking over the machine.
- vii) Nonworking of any system continuously without information to AIIMS.
- viii) Non execution of deficiencies communicated by AIIMS in a mutually agreed period.
- ix) Non attendance and non completion of breakdown in time agreed between AIIMS and the Contractor.
- x) Unauthorized absent of any manpower or a workman found sleeping/ casual sitting during working hours or not following the Institute's general guidelines etc.
- xi) Any workman found to be not wearing uniform /PPE repeatedly during working hours.
- xii) Any Tools & Tackles or the stock of material not found sufficiently and hampering the day to day work.

Operation and /or Maintenance of machine/equipment shall be treated under poor Operation and / or Maintenance if there is occurrence of any one situation or combination of situations

as mentioned above as per the EIC. This will attract a deduction from the bill. The deduction to be made is as under.

For each situation (one situation or combination of situations treated as each situation) found or occurred, ₹2,000/- shall be deducted from the corresponding bill.

6.2 DEDUCTION DUE TO POOR CLEANLINESS / HOUSEKEEPING:

The machine/equipment is to be kept in a reasonably cleaned condition. In case the level of cleanliness/housekeeping is not up-to the satisfaction of EIC during inspection, the contractor shall initiate immediate steps to undertake cleaning/housekeeping work in a time bound manner failing which the Contractor shall be liable for a deduction of ₹5,000/- for the 1st violation and ₹10,000/- for the 2nd violation from the quarterly bill. In the event the Contractor is found to be negligent in house-keeping continuously, it may result in termination of the Contract.

6.3 DEDUCTION FOR NON PROVISION OF PERIODIC INSPECTION:

A deduction of ₹30,000/- (Rupees Thirty Thousand) only shall be made from the Contractor's bill for not providing expert services in time (i.e. once in a year) as specified (Periodic Inspection) of Scope of Work on each occasion for each field i.e. Chillers, Cooling Towers, Ozone System, VFD system, Duct Heater Controller & ACDB Panel.

6.4 PENALTY FOR INADEQUATE PLANNING FOR CRITICAL SPARES:

In case of requirement of any material/component for which AIIMS has not been informed in advance, the Contractor shall arrange the material /component and make the machine/equipment functional at his own cost. If AIIMS arranges the material / component, the cost will be recovered from the monthly bill of the Contractor. In addition, the downtime of machine/equipment will be considered towards non-availability of machine/equipment and deduction as decided by the EIC shall be effected from the bills.

SCOPE OF WORK

This tender is for complete Operation and Comprehensive Maintenance of the Central Air-conditioning System comprising of all the machineries & equipment installed in the AC Chiller Plant including Cooling Towers, Ozone Generator System, Condenser Pumps, Primary & Secondary Pumps, Tertiary Pumps, VFD & Automation of Pumps, Air Handling Units, Precision AC Units (CSUs, Cassette AC units, FCUs, VOC sensors), Heat Recovery Units, Ventilation Fans (AV Units), Lift Pressurization System, Ozone Injection System, Duct Heaters with controllers etc. throughout the period of contract. **The list of major equipment of HVAC system at AIIMS, Bhubaneswar are given as per Annexure-A.** The minor items, instrumentation & control, field devices, control panels etc. which are accessories but not listed in Annexure-A, are part of the complete systems covered under comprehensive maintenance. Also, the piping network of chilled water circulation along with their accessories insulation such as bends, tees, reducer flanges, valves, strainers outlets etc. of HVAC System are covered under comprehensive maintenance. Besides, ducting with different thickness of insulation pertaining to AHU/CSU/ FCU/HRU and associated volume Control Dampers, Fire Dampers, grilles, diffusers, fusible link etc. are also covered under comprehensive maintenance.

The scope of work as mentioned below are the minimum expected from the firm/agency/contractor apart from breakdown maintenance and any other work required for operation and maintenance in proper way as per the operation and maintenance manuals of respective equipment as per sound engineering practices. Bidders have to ensure that all work comes under his/her scope of contract either work was pending from project time or failure of any component during the maintenance in past time. Any work/ exigency pertaining to HVAC System of AIIMS, Bhubaneswar even if it is not specifically mentioned in this document shall be carried out by the contractor at no extra cost. The contractor shall have to take up both operation and preventive as well as breakdown maintenance jobs comprehensively, which means it includes all provision of manpower/ supervisor/ Engineer/ spares/ repairs/ replacement etc. except the spares for high side. The Engineer-in-Charge or his representative shall give instructions regarding the jobs to be carried out as and when requirement arises at site. The contractor shall have to carry out the jobs and complete in all respect to the entire satisfaction of the Engineer-In-Charge, such as scheduled checking/servicing/overhauling of the machines as per instructions of Engineer and maintenance schedules indicated in the tender document or recommended by manufacturers of the machines as the case may be. The scope of work also includes repair/replacement/overhauling of all the parts of the machines/equipments, which become defective, inefficient or get damaged during working. The decision of the competent authority regarding repair/replacement/ overhauling of any part of the machine will be final and binding on the contractor.

Annexure-A				
Sl. No.	Description of Item	Make	Capacity	Qty.
1	Centrifugal- type water cooled Chiller (In Plant Room), (Capacity 725 TR each, Power Consumption at Full load less than 0.67 IKW/TR, at NPLV less than 0.40 IKW/TR)	Carrier	725 TR	5 Nos.
2	Condenser Water Pumps (In Plant Room) (Capacity 10875 LMP , Head 25 m , Speed 1450 RPM, Starter Type- Star delta)	Crompton Greaves/Mather Platt	75 KW	5 Nos.
3	Chilled Water Pumps Primary (In Plant Room) (Capacity 6570 LMP , Head 12 m , Speed 1450 RPM, Starter Type- Star delta)	Crompton Greaves/Wilo	18.5 KW	5 nos.
4	Secondary Pumping System (In Plant Room) For Hospital Building Zone-1 (Capacity 6418 LMP , Head 10 m , Speed 1450 RPM , Starter Type- VFD)	Grundfos	15 KW	4 Nos.
	Secondary Pumping System (In Plant Room) For Medical College + Administration Building + College of Nursing + Auditorium Building Zone-2 (Capacity 3515 LMP , Head 14 m , Speed 1450 RPM , Starter Type- VFD)	Grundfos	15 KW	3 Nos.
5.	Tertiary Pumping: -			
	a. Hospital Building			
	Zone-1 (Normal Elect. Supply) (Capacity 7245 LMP , Head 20 m , Speed 1450 RPM, Starter Type- VFD)	Grundfos	30 KW	3 Nos.
	Zone- 2 (Emergency On DG) (Capacity 6002 LMP , Head 20 m , Speed 1450 RPM, Starter Type- VFD)	Grundfos	37KW	2 nos.
	b. Medical College + Nursing			
	Zone-3 (Normal) (Capacity 3942 LMP , Head 15 m , Speed 1450 RPM, Starter Type- VFD)	Grundfos	15 KW	2 nos.
	c. Administration Building			
	Zone- 4 (Normal) (Capacity 1877 LMP , Head 15 m , Speed 1450 RPM, Stater Type- VFD)	Grundfos	7.5KW	2 Nos.
	d. Main Auditorium			
	Zone- 5 (Normal) (Capacity 1154 LMP , Head 15 m , Speed 1450 RPM, Starter Type- VFD)	Grundfos	5.5KW	2 Nos.

6	Cooling Towers (On Plant Room Terrace) (Type- FRP induced draft, Capacity-10875 LMP , Heat rejection Capacity- 274500 K.Cal/hr. , Fan speed 500 RPM max, Starter Type- VFD)	Paharpur	37 kw	5 Nos.
7	Air Handling Units (AHU)/ Ceiling Suspended Units (CSU) of different ratings	Blue Star Ltd./ Edgtech	3.0 TR to 38 TR	209 Nos.
8	Fan Cioil Units (FCU)	Blue Star Ltd.	1.0 TR to 3.0 TR	81 Nos.
9	Cassette AC Units	Caryaire	1.5 TR to 2.0 TR	25 Nos.
10	Heat Recovery Units (HRU)	Waves	Fresh Air 1700 to 6050 CMH	91 Nos.
11	Air Ventilation Units (for mechanical Ventilation System)	Blue Star Ltd.	Air Flow 6240 to 48500 CMH	50 Nos.
12	Centrifugal Blower	System Air	Air Flow 49000 to 55000 CMH	4 Nos.
13	Duct Heater & Control Panel	Daspass/ Delta	6 KW	26 Nos.
14	Tube Axial Fan with VFD Controller	System Air	Air Flow 3500 to 61500 CMH	35 Nos
15	Inline Fan (ILFE) / Propeller Fan (EF) (Wall/ window type exhaust fan with mounting, arm, impeller, motor with class "B" insulation, 220/240 volts single phase, 50 Hz, power supply)	Kruger		731 Nos
16	Ozone Generator for Cooling Towers	Oraipl	800 g/hr	1 Set
17	Ozone Injection System for maintaining indoor quality comprising of duct mounted ozone generator, VOC sensor, controller. Wiring between the Ozone monitor/switch and controller	Oraipl	Air Flow 2000 to 7500 CMH	5 Sets
18	Motor Control Centre (MCC) Panel, Electrical Panel Board, AHU/CSU Starter Panel complete with VFD, Voltmeter, Ammeter, Indication lamps, Incoming & Outgoing switches (ACB/MCCB/MCB), CT, Relays & Contactors etc.	Schneider & others	-	Lot

HIGH SIDE SCOPE OF WORK

Chillers:

❖ Quarterly Preventive Maintenance

1. Check the operating parameters of all the Chillers every 3 months and submit the report to E-I-C.
2. Review the previous months operating log records and alarm history.
3. To clean the Electrical panels and entire electrical connections every quarterly with air blower.
4. To check the system operating pressures and temperatures to ensure proper operating conditions of pumps.
5. Check for a sign of refrigerant leakages through standard procedure and rectify the leaks if found.
6. Check the operation of Expansion valves.
7. To check the operation of safety control/ microprocessor by conducting control test.
8. To check /calibrate flow switch for proper functioning.
9. Tightening the entire electrical contractor terminals.
10. To check the compressor motor starter and associated interlocks etc.
11. Inspect vibration eliminators for secureness and damage -physical inspection can be done and reported, however the working efficiency cannot be ascertained.
12. Test secureness of mounting points and tighten all major points.
13. Measuring operating voltage and ampere and record readings.
14. Inspect starter for signing of wear, arcing, overheating burns etc.
15. Inspect wiring and connections for signs of wear, arcing, overheating burns etc.
16. Check high compressor motor temperature.
17. Check leakage in compressor.
18. Check high pressure safety switch.
19. Verify the refrigerant charging.
20. Inspect unusual vibration & noise (if any).
21. Inspect moisture indicator for evidence of moisture.
22. Record the compressor suction and discharge pressure.
23. Record compressor oil pressure.
24. Check the condenser fans to ensure guards are in place and free of obstruction.
25. Check condenser fan motors and bearings.
26. Vendor to discuss with admin the plan for the quarterly maintenance before the PMS activity and service report after PMS.
27. Vendor shall give the inputs on the in-house maintenance.
28. Full range of monitoring, diagnostics, analysis, recommendations, optimization of your equipment as per requirement.
29. To provide and replace internal oil filters, as & when required during the contract period.
30. To provide and replace refrigerant driers, as & when required during the contract period.
31. To inspect oil quantity and replacing the same, if required.
32. Half yearly detailed parameters monitoring of chiller systems for diagnostics, analysis of chiller health and submit the report to customer.

33. To check the operation of VFDS of Chiller and Pump systems and if service required, it is to be done by the vendor.
34. Chiller should be serviced under the supervision of OEM service Engineers towards proper execution of maintenance.
35. Periodical software up-gradation in chillers.
36. Condenser and Evaporator descaling with copper friendly chemicals once in a year as instructed by the Engineer -in -Charge.
37. Lubricate all the valves and bearings of Motor and Pumps.
38. Meg the motor and record readings and verify the operation of the electrical interlocks.

❖ **Annual Preventive Maintenance**

1. Replace Oil filters, refrigerant filter if required.
2. To clean all the contractors (Oil pump and Oil Heater) during annual visit.
3. Repairing of the leakages of Heat Exchangers as and when required.
4. To attend to the complaints as and when called for.
5. Replenish refrigerant as and when required basis.
6. To check the functioning of Pressure and Temperature gauges and perform the calibration of these devices once a year and submit the report to E-I-C.
7. Replacement of Pressure and Temperature gauges across the Chiller and condenser as when required.
8. Annual testing of compressor oil and replacement of oil as based on the Lab report.
9. Repair and replacement of VFDs.
10. Verify the working condition of all indicator /alarm lights and LED /LCD displays/Motherboards/EXV cards/ISM /CCM boards.
11. Test oil pressure safety device as required. Calibrate and record settings.
12. Test the operation of the chilled water pump start auxiliary Repair minor leaks as required
Eg: Valve packing, flare nuts. contacts, if applicable.
13. Lubricate all the valves and bearings of Motor and Pumps.
14. Verify the operation of Oil heaters.
15. Service Provider shall carry out the total maintenance work for chiller units in all respect for healthy operation of the units.
16. Inspect all Electrical Panels and Electrical devices using Thermal Scanning
17. Water balancing of condenser line in chiller plant once in a year and submit the report to E-I-C.
18. Servicing of VFD of Chiller once in a year.

Note: Pump system includes Primary, Secondary, condenser pumps in Chiller plant and Tertiary Pumps in Hospital, Auditorium, Academic and Admin Block.

❖ **SPECIALLY INCLUDED:**

1. Any parts will be providing under this contract including compressor oil, filters
2. To attend to the complaints as when called for.
3. To provide any spare covered under the scope of offer.
4. Monitoring the equipment and health check up with the OEM special team once in a year.

5. Servicing of VFDs of Chillers including VFD cleaning, any parts replacement will be under the scope of Vendor.
- ❖ After handing over of the site, the following works are to be initiated by the vendor within two months:
1. Compressor oil approx. 380 liters and oil filters for all the chiller are to be changed.
 2. Insulation of all 5 Nos. of chiller must be carried out properly with 100 mm thick insulation within the month from the issuing of the work order.
 3. All condenser water line, Ozone generator line, makeup water and drain line is to be painted as per color codes.

❖ **COOLING TOWERS:**

The following points should be considered during the CMC period.

Daily	Check water level
Daily	Check the oil level of gearbox
Weekly	Inspect basin for clogging
Monthly	Check for unusual noise/vibration in fan and fan guard, motor drive shaft and guard
Monthly	Inspect clogging in eliminator, fills and water basin
Monthly	Check bearing for noise
Monthly	Check fan blade looseness/crack
Monthly	Check water for oil and sludge in basin of cooling tower
Monthly	Clean the basin and replace water in basin
Monthly	Check and adjust float valve if required
Monthly	Check current values of motors
Monthly	Check for any leakages in gear reducer, water basin and float valve.
Monthly	Check water and sludge
Monthly	Check motor winding for over heating
Monthly	Drain cooling tower twice in a month along with condenser pipe line water.
Monthly	General cleaning for inside and outside
Quarterly	Check access door work properly
Quarterly	Check the staircase ladder corrosion
Quarterly	Check the distribution basin for corrosion, leaks and sediments
Quarterly	Check the drift eliminator louvers for scale build up
Quarterly	Check the gearbox for any oil leak
Quarterly	Check the fan blades for dirt/scale deposits and condition of fan cylinder
Quarterly	Check the mechanical parts of motor supports (cracks)
Quarterly	Check the distribution spray nozzles to ensure even distribution of water run over the fills
Quarterly	Check sludge in gear box
Quarterly	Check motor winding for overheating
Quarterly	Clean cooling tower inside and outside
Quarterly	Check and top up oil in gear
Quarterly	Cleaning of sump and check for any leakage
Quarterly	Clean fan & fan guard, motor shaft, gear reducer, eliminator, fills,

	water basin, float valve, control valves etc.
Quarterly	Rebalance of fan & fan guard, driveshaft & guards
Quarterly	Check insulation resistance
Quarterly	Clean nozzles if required
Quarterly	Check the water distribution system including nozzles.
Half yearly	Inspect keys, keyways and set screws of fan and fan guard, motor, drive shaft and guards. Inspect the general condition of fan and fan guard, motor, shaft, gear.
Half yearly	Reducer, fills, control valves, structural member, fan cylinder, stairs, ladders etc.
Half yearly	Tighten loose bolts of fan, fan guard, motor, shaft, if any
Half yearly	Check the working of control valve
Half yearly	Check completely open and close operation of float valves. Repair as required.
Half yearly	Clean all nozzles and replace if damaged
Half yearly	Check grease, clean and re-lubricate bearing of motor
Yearly	Tighten loose bolts of FRP, structure bolt connection and motor.
Yearly	Check and change nozzles, fills if required
Yearly	Complete cleaning the whole parts of CT (Louvers drift eliminators and fill surface)
Yearly	Replacement of net of pot strainer as and when required
Yearly	Replacement of motor terminal as and when required
Yearly	Replacement of motor bearing and seal of gear box as and when required

❖ SPECIALLY INCLUDED:

1. Rewinding of Cooling Tower motor and replacement of its related accessories like terminal etc. Replacement of coupling, Spyder/bush and other related accessories as and when required.
2. Replacement of seal of gearbox.
3. Replacement of spray nozzles.
4. Replacement of bearings
5. Replacement of net of pot strainer.
6. Replacement or Top-up of gear oil as and when required.
7. Repair/Servicing of VFDs and VFD display will be under the scope of vendor.
8. Repair of Gearbox of CT.

❖ After handing of site, complete Overhauling of Cooling Towers and other allied works are required for **Three nos.** of Induced Draft FRP type (Model No: 6.1k - 6072) of make Paharpur cooling towers with following works as one-time job:

1. Repair of base /Replacement of worn out parts.
2. Refitting of cooling towers with new FRP fins/fills pack.
3. Gear oil change
4. All spray nozzles, diffusion rings, HEX screw, Nuts, washer, float valves etc.
5. Epoxy painting of cooling Towers.
6. Painting of Condenser water, makeup water, drain, ozone and Equalizer pipelines with respective colours as per colour codes.
7. **Approved Chemical treatment of the Cooling Tower water to make free from corrosion, deposits and biological growth.**

❖ **Primary, Secondary, Tertiary and Condenser Pumps Common Maintenance schedule:**

Weekly	Check cable for Heating
Weekly	Check for any leakage from glands, seal or flange joints
Weekly	Check alignment of pumps, motor and rectify if required.
Weekly	Check coupling condition adjust and replace if required.
Weekly	Check the VFDS tightening of connection and their functioning.
Monthly	Check for any leak in motor and pump connections and rectify if required.
Monthly	Check bearing temperature with thermometer and hand test that bearing is not running excessively hot, then rectify.
Monthly	Check for leaks in isolation of valves, strainers and flexible connections.
Monthly	Clean pump exterior
Monthly	Check for any abnormal noise and vibrations during running, if noticed rectify it.
Quarterly	Servicing of VFDs of Pumps
Quarterly	Check pump lubrication as necessary.
Quarterly	Check and clean pump strainers and motor casings.
Quarterly	Check shaft or shaft sleeve for scoring
Quarterly	Tight and clean all electrical terminals, electricals connections, conduits, insulation, flexible connection.
Quarterly	Check and record motor running current, check motor terminals.
Half yearly	Check and clean all contact surfaces of circuit breaker, enclosure switches and push buttons
Yearly	Check condition of seals and bearings (adjust or replace if required)

❖ **Specially Included:**

1. Annual Heat varnishing of Pump if required.
2. Repair or replacement of VFDs as per the given make will be under the scope.
3. Replacement of bearings, gland, bush, seal and other accessories of pumps.
4. Repair or replacement of Couplings and associated accessories like bush/spider, pvc drain pipe etc.
5. Rewinding of Pump motor if burnt out.
6. Replacement of motor terminal in case of burnt out.
7. Half Yearly flow checking and submission of report to E-I-C.
8. Calibration and Replacement of Pressure gauges and thermometers for pumps as and when required.
9. Quarterly service of Pump electrical panels, replacement of MCB/MCCB etc. under scope of Vendor.
10. Annual painting of pump to prevent it from rusting will be done as and when intimated by the E-I-C.

❖ **Ozone Generator System:**

A. Ozone Generator:

1. Corona cells cleaning to remove contaminates and nitric acid
2. Clean high voltage terminals
3. Replace / rebuild check valves
4. Check and test safety components
5. Replace oxygen /dry air feed gas filter
6. Check and repair ozone leaks
7. Check and record proper operating parameters.

B. Oxygen Concentrator:

1. Replace air filters
2. Rebuild/replace oxygen purge solenoid valve
3. Rebuild /replace drain valve and moisture traps
4. Refill/replace molecular sieve material
5. Check for proper operation and function of all valves and purging.
6. Check and record oxygen purity and dew point.

C. Air Dryer

1. Replace air filters.
2. Rebuild/replace solenoid valves.
3. Replace air dryer desiccant.
4. Check and record air dew point.

D. Air compressor:

1. Clean or Replace air filters of the reciprocating compressor as and when required.
2. Change compressor oil and filter.
3. Replace belts, tubing, hoses as and when required.
4. Check/replace air relief valve as necessary.

E. Water Chiller:

1. Refrigerant replace or top up as and when required.
2. Check Compressor, any fault replaces.
3. Check valves and relief valves, if faulty replace.
4. HP and LP cutoff check.
5. Check water and fill water.

F. Ozone /Water Mixing System

1. Check the injection pump
2. Repair/Replace check valves
3. Replace Venturi.
4. Calibration of pressure and temperature gauges.
5. Check for proper air vent operation.

G. Pumps

1. Check Booster and RC pump working.
2. Check pumps motor functioning.
3. Motor winding if required, be done.

❖ **Motor Control Centre (MCC) Panel (Chiller plant) :**

	PREVENTIVE MAINTENANCE (FIRST VISIT)	HALF YEARLY HEALTH CHECKUP (2ND VISIT)
Equipment	Description of work	Description of work
415 V Air Circuit Breaker	Visual checking of ACB and physical checking of Breaker Housing	Visual checking of ACB and physical checking of Breaker Housing .
	Checking ACB spring charge electrically /manually	Checking ACB spring charge electrically /manually
	Checking ACB tripping through protection relay.	Checking ACB tripping through protection relay.
	Measurement of contact resistance (by mill volt drop test or with digital micro ohmmeter)	Measurement of contact resistance (by mill volt drop test or with digital micro ohmmeter)
	Physical checking of breakers and breaker operation test both manually and electrically (5 operations each)	Physical checking of breakers and breaker operation test both manually and electrically (5 operations each)
	Check fixed and moving contact & measurement of IR values	Check fixed and moving contact & measurement of IR values
	Check close & trip coil, check earth continuity	Check close & trip coil, check earth continuity
	Cleaning the breaker compartment thoroughly	Control circuit checking with auxiliary rotary switch checking
	Control circuit checking with auxiliary rotary switch checking	Lubricate the breakers if necessary
	Lubricate the breakers if necessary	Apply grease /petroleum jelly on moving required part .IR test with IR tester.
	Closing and opening timing test for all three poles	Check spring charging motor.
	Apply grease / petroleum jelly on movable required part .IR test with IR tester	Physical checking of breaker housing
	Check spring charging motor	No unplugged holes to be left and no foreign materials left over.
Control & Relay Panel with CT & PT	Check Auxiliary supply and control voltage	Check Auxiliary supply and control voltage
	Check control and power fuses / indication lamps	Check control and power fuses / indication lamps
	Check the space heater	Check the space heater
	Checking of control circuit & tighten the connections if any.	Checking of control circuit & tighten the connections if any.
	Current Transformer IR, Polarity, winding resistance, ratio and knee point for class 5P10 testing	
	Potential transformer IR, winding	

	resistance and ratio test.	
	Numerical Relay functional checking and testing.	
415 Volt Panel Bus -Bar, Cable Compartment & Breaker Compartment	Checking the space heater	Checking the space heater
	IR test of bus	IR test of bus
	Cleaning the breaker compartment thoroughly	Cleaning cable end termination and tighten if required
	Contact resistance test without opening of busbar insulation tape and compound	Cleaning of the cable chamber and outside panel
	Cleaning of the cable chamber and outside panel	Check the shutter operation
	Cleaning cable end termination and tighten if required	Check tightness of circuit & earth connections
	Apply grease /petroleum jelly on required parts	Alignment check of ACB for proper rack-in and rack out
	Check the shutter operation	Alignment of panel doors for Breaker chamber and Rear doors
	Check Tightness of circuit & earth connections	Check of limit switches, control cable conduit
	Check busbar support insulators	Condition of painted surfaces, condition of structure, door, wiring, Instruments, relays power isolating contacts and auxiliary isolating contacts.
	Alignment checks of ACB for proper rack in and rack out	Condition of all indicating instruments, cleaning and lubrication moving parts, tightening of nuts and bolts, checking of trolley wheels alignment during insertion
	Checking of limit switches, control cable conduit	
	Phase barrier setting in cable chamber	
415 Volt Panel Bus -Bar, Cable Compartment & Breaker Compartment	Condition of painted surfaces, condition of structure, door, wiring, instruments, relays, power isolating contacts and auxiliary isolating contacts	
	Condition of all indicating instruments, Cleaning & Lubrication of moving parts, tighten of nuts & bolts, checking of trolley wheels alignment during insertion.	
	Alignment of panel doors for breaker chamber, rear door.	

❖ Changing of all required spares will be under scope of the contractor.

LOW SIDE SCOPE OF WORK

❖ Air Handling Unit (AHU):

The following points to be considered during the CMC period.

Weekly	Check for coil and filters if found faulty /damage, rectify or replace as required.
Weekly	Cleaning of AHU pre-filters
Weekly	Check for air and water leakage
Weekly	Check condensate drain for any blockage, clean if required
Weekly	Check drain pan for any blockage
Weekly	Check fan belt for correct tension and sign of wear and alignment of fan and motor.
Monthly	Inspect coils and clean, if required
Monthly	Check functioning of lights and limit switch interlocking and proper illumination
Monthly	Check for bearing of motor and blower and lubricate as required.
Monthly	Check for tightness of V-Belts and alignment of pulleys.
Monthly	Check looseness of any bolt in fan or casing and motor base etc.
Monthly	Check for vibration in blower and motors.
Monthly	Check access doors and hinges for easy operation
Monthly	Check cleanliness of the filters and clean.
Monthly	Check the associated damper flap movement and apply grease for the bearing housing, if required
Monthly	Check the function of Fire damper and its associated controls, grease the bearing housing if required.
Monthly	Check running current of motor.
Quarterly	Check/Add grease or lubricate to the fan shaft bearing, motor bearing, blower bearing.
Quarterly	Check the alignment of fan and motor, if necessary correct the same.
Quarterly	Inspect the condensate drain pan and ensure that it is clean and water freely flows to the drain.
Quarterly	Inspect the coils for cleanliness. Wash the coil with a low-pressure water hose or low-pressure air.
Quarterly	Observe all dampers for proper operation.
Quarterly	Check tightness of electrical connections.
Quarterly	Check flexible connections spool piece for leakage.
Quarterly	Check for condition of inlet strainers and clean
Half Yearly	Check in motors full load current, fan motor running current and tightness of terminals
Half Yearly	Check blower shaft, scroll, impeller and bearing
Yearly	Check and clean cooling coils & fins.
Yearly	Clean interiors and check for corrosion, check tightness of all sections
Yearly	Check anti-vibration mounting and flexible connections
Yearly	Check operation and condition of all electrical connections
Yearly	Check alignment of drive pulleys, adjust the same if required
Yearly	Combing of fins to be done after coil cleaning
Yearly	Check all bellows, replace if any crack /water leakage observed
Yearly	Check insulation resistance (Megger) of motor
Yearly	Checking all MCCB/MCB/Control panel, if required replace

❖ **Pre and Fine filter replacement of AHU as and when required will be under the scope of vendor.**

❖ **AHU supply and Exhaust starter panel:** The following points should be considered during the AMC period.

1. Monthly checking of electrical parameter and replacement of electrical components if required.
2. Defective spare parts replacement as per given makes.
3. Power DB terminal end.
4. Earthing connection etc.
5. Repair / replacement of Humidistat, Thermostat, Airstat etc.

❖ **Fan Coil Unit (FCU):** The following points should be considered during AMC period.

Weekly	Check the water leakage.
Weekly	Clean air filters.
Weekly	Check drain pan for any blockage.
Monthly	Clean filters and Y-strainers, if required.
Monthly	Check the fan belt tension, abnormal noise and rectify if required.
Monthly	Check any water leakage from unit.
Monthly	Inspect the condensate drain pan and ensure that it is clean and water flows freely.
Monthly	Check the condition of access door hinges for proper fixing.
Monthly	Check the unit is secured.
Monthly	Check the operation of inlet /outlet isolation valve.
Monthly	Check the looseness of any bolts in fan casing motor base etc.
Monthly	Check the associated damper movement and apply grease for bearings.
Quarterly	Inspect cooling coil and clean if required.
Quarterly	Clean strainers of FCU.
Half yearly	Check blower, motor unit etc. clean lubricate.
Half Yearly	Check and receive the vibration value and compare with recommended values.
Half yearly	Check tightness of electrical connections.
Half yearly	Add water and flush condensate drain pan, trap and drain line.
Half yearly	Check the condition of inlet strainers and clean if required.
Half yearly	Check the proper functioning of the 3-way and 2-way valve.
Half yearly	Check the interconnection, copper piping, canvas and cooling coils.
Half yearly	Check full load current of motor.
Half yearly	Check the tightness of terminals of motor.
Half yearly	Check motor running current.
Yearly	Check blower, motor unit etc. clean and lubricate.
Yearly	Check electrical control and connection.
Yearly	Check and clean cooling coil with water, if necessary.
Yearly	Check 2/3-way valve for proper operation.
Yearly	Check insulation resistance (Megger) of motor.
Yearly	Check/ clean cooling coils and fins and repairing /replacement of canvas.

❖ **Cassette Unit:**

1. Quarterly checking and Servicing of all units.
2. Ball valve, actuator sensor, motor blowers, sensor and display rectification / replacement contractor scope of work.
3. Insulation as per requirement.

❖ **Ducting, grill and chilled water pipeline:**

1. Ducting and chilled water pipeline insulation is under contractor scope of work.
2. Diffuser, grill, damper and ducting cleaning half yearly.
3. Leakage repairing etc. contractor scope of work.
4. Fire actuator for fresh air damper contractor scope of work.

❖ **Fire Exhaust fan:**

1. Supply and Exhaust fan motor, fan blade etc. repairing / replacement contractor scope of work.
2. Quarterly fan cleaning and servicing.
3. Electrical parameters checking monthly.
4. Fire damper actuator and controller repairing, checking etc.

❖ **UV lamp:**

1. Lamp Checking.
2. Fault rectification/replacement if any.

❖ **Duct Heater:**

1. Heater checking /Servicing monthly.
2. Accessories checking /repairing /Replacement like contractor, thermostat, humidistat Airstat etc.
3. Fault repairing.
4. Electrical parameters checking.
5. Operation and maintenance including spares replacement will be under the scope of vendor.
6. Programming and upgrading of Duct Heater Controller is under contractor scope.

❖ **Heat Recovery Unit:**

1. Filter cleaning monthly.
2. Heat recovery wheel checking.
3. Fine and Pre-filter replacement after every 1 years.
4. Fresh air chamber cleaning monthly.
5. Coil Section chamber cleaning quarterly.
6. Electrical parameters checking monthly.
7. Belt tightening /replacement.
8. Pulley rectification if any.
9. Motor repairing /replacement.
10. Cooling coil repairing /Replacement.
11. Canvas repairing /replacement.
12. Actuator valves, ball valves, balancing, thermometers and pressure gauge monthly checking require and repairing /replacement.
13. Drain line checking monthly.
14. Limit switch and lamp checking and replacement as and when required.

Note: Low side operation, repairing and new replacement of above all machinery, equipment, field devices and installations should be comprehensibly under contractor scope of work.

The HVAC of lower side distributed in six main buildings i.e Hospital Building, Academic Block, Admin Block, College of Nursing, Mortuary and Auditorium. The temperature and RH% maintenance both are under the contractor scope of work and the desire temperature maintain as per the end users' requirements.

The contractor should provide the 24 hrs. operation and any call should be attended immediately after lodging complaint. The following are brief details that are to be maintained during the AMC period of contractor.

1. Temperature and humidity maintain.
2. Cassette unit checking, water leakage problem, noise problem, body concentration etc.
3. FCU checking, water leakage problem, noise problem, body concentration etc.
4. Thermostat set point change.
5. Condensation problem.
6. Water dripping from AHU.
7. HEPA filter set point change.
8. Supply and Exhaust fan switch on/off as per requirement.
9. HRW on/off as per requirement.
10. Insulation on ducting.
11. Insulation on chilled water pipeline, drain line and valve.
12. Call attendance register maintain.
13. Electrical fault, tripping and alarm etc.
14. Maintenance of temperature sensor, humidistat, air stat, Thermostat, VFD etc.
15. Checking and maintenance of diffuser, damper and grills in different wards, rooms etc.
16. If any items require to repair /replace, it should be done within 48 hours. If contractor should need more time to bring the item/repairing give the justification against it.

Checklist

Item Description	Period
MCC Panel parameters	Daily
Chiller Data	
Secondary Pump, Primary Pump & Cooling Tower Data	
AHU motor amp, canvas, terminal, belt, pulley, filter section, drain line, heater, UV lamp, limit switch and bulb, lamp, valve etc.	Fortnightly
FCU motor amp, canvas, terminal, belt, pulley, filter section, drain line, heater, UV lamp, limit switch and bulb, lamp, valve etc.	
Cassette unit amp, terminal, blower, filter section, drain line, valve etc.	Monthly
Starter panel for supply and exhaust amp, terminal, MCB, contactor, relay etc.	
Automation and VFD Panels checking etc.	
Functionally Checking of all types valve at branch line	Quarterly
Axial flow fan amp, terminal, actuator etc.	

Servicing

Item Description	Period
AHU/CSU/HRW filter cleaning	Monthly
AHU/CSU/ HRW fresh air chamber cleaning	
Cassette type unit blower and filter section servicing	Quarterly
FCU blower section and filter section servicing	
Actuator Servicing	
Strainer cleaning	
Cooling Tower Descaling and Basin cleaning	
Butter fly valve servicing	Half Yearly
Grill and diffuser cleaning	
VFD servicing	
Axial flow fan cleaning	
Duct cleaning	
AHU Coiling coil Descaling	Yearly
ACB in MCC panel servicing	
Chiller condenser/evaporator descaling	

1.0 PRE TAKEOVER ACTIVITIES:

The successful bidder upon being selected for the work shall be issued with Letter of Acceptance. On receipt of LOA the successful bidder (hereafter referred to as ‘the Contractor’) shall start following mobilization activities at his own cost and complete within 30 days of issue of LOA. Thereafter, Work Order will be issued and the work will be commenced. The contractor shall take over the site within 15 days of issue of work order and signing the agreement.

1.1 ESTABLISHMENT:

1.1.1 The contractor shall set-up its establishment such as office & office facilities and initiate related activities for taking over the machine.

1.1.2 Nomination of Authorized representative.

The Contractor shall nominate his representative as Overall In-Charge for the Contract to ensure that all the obligations under the Contract are discharged smoothly. He shall be authorized and empowered by the Contractor on all matters concerning this Contract. In all such matters, the Contractor shall be bound by the communications, directions, requests and decisions issued in writing to / by the Contractor’s Representative. The Contractor’s representative will report to the AIIMS’s designated officer (s) in matters relating to performance of the Services under the contract.

1.2 HANDING OVER AND TAKING OVER OF THE HVAC SYSTEM:

1.2.1 The handing over and taking over process includes joint inspection of the system, spares and store items by the representative of Purchaser and the Contractor. The joint inspection report shall contain the condition and status of the various components of machine, availability of spares and store items with specific comments on the detected visual abnormalities if any non-availability of immediate spares and store items.

These Report / documents are treated as base level document for effecting proper O & M planning and monitoring of the system. AIIMS will provide all drawings, manuals, past maintenance record and major failures, test records, log books etc. if available, to the Contractor.

- 1.2.2 Development of formats acceptable to the AIIMS during the term of the contract for reporting the feed-back, status of O&M activities and maintaining records & log books, etc. shall be the responsibility of the Contractor and shall be carried out in consultation with EIC.
- 1.2.3 The Contractor shall ensure that all the required personnel / resources are available at the time of the handover so as to be able to appropriately takeover and commence the intended services as per contract.
- 1.2.4 All equipment/ spare(s) taken for maintenance during the contract period shall be handed over back to AIIMS, Bhubaneswar in good working condition.
- 1.2.5 The doors of all the AHU/AV units and Tertiary Pumps have been provided with Lock & Key arrangement. One set of key will be handed over to the contractor on award of work for operation & maintenance of the system. The keys shall be kept by the contractor till expiry/termination of the contract and the same shall be handed over back to the department.

2.0 STANDARDS OF PERFORMANCE OF SERVICES:

The Services shall be performed in accordance with the express and implied standards including the following:

- a) The provisions of this Contract
- b) The Operating logic of Machines/ Equipments
- c) Operation and Maintenance as per the O&M Manuals and taking in
- d)
- e) to account the current status of the machine.
- f) All Directives.
- g) Compliance with statutes, regulations as per clause.
- h) Quality Control in accordance with the requirement of ISO.
- i) Operate and Maintain the HVAC System in accordance with sound industrial practice, financial & administrative practice and ensuring that the System is to be transferred to AIIMS on expiry of the contract period in good working condition.

3.0 SERVICES DURING TERM OF CONTRACT:

3.1 STAFF SELECTION & DEPLOYMENT:

3.1.1 Contractor's personnel

“Contractor's Personnel” means the Manager/Engineer/Supervisor, technicians and other personnel including labours to be provided and deployed by the Contractor for smooth

Operation & Maintenance of the HVAC System of AIIMS, Bhubaneswar. A total of **24 nos. of man-power** including Engineers, supervisor and Technicians thoroughly familiar with the type of machines/equipments shall be deployed at the site for 24 hours 365 days basis as mentioned below:

Sl.No	Designation	Qualification	Requirement	Category
1	Site Supervisor / Sr. Technician	B. Tech in Mechanical /Electrical with 2 years' Experience in HVAC machineries operation and maintenance OR Diploma in Mechanical /Electrical with 3 years' Experience or ITI with 5 years' Experience	1	Highly Skilled
2	Chiller Operator	ITI In Mechanical /Electrical OR 12th Pass with 2 years' experience in Chiller Operation	8	Semi-skilled
3	Fitter	ITI In Fitter OR 12th Pass with 2 years' experience in Pump /Chiller maintenance	3	Skilled
4	Electrician	ITI in Electrical OR 10th Pass with 2 year Experience in Electrical maintenance	3	Skilled
6	Helper	8th pass	9	Unskilled
		TOTAL MANPOWER	24	

The manpower requirement indicated above is purely tentative which may vary depending on the quantum of work and exigencies. All the manpower should be duly qualified/ experienced/ licensed (as required) and capable to handle Electrical/ Air-Conditioning works to the satisfaction of Engineer-in-charge. They should be fully conversant with relevant Indian Standards and should follow Electrical / Industrial safety norms/ practices. Each manpower has to pass the skill test of their concern field and if any person not found suitable/desirable by the Engineer-in-charge, shall be replaced by the contractor.

The Contractor's personnel shall be recruited and/or deputed by the contractor whose trade, grade, experience and qualification shall suit to the intended purpose.

At present, the HVAC system is being maintained & operated by one external Agency who has deployed few personnel to carry out the work. The Contractor shall give first preference to engage the existing personnel working in the system on suitability basis.

The Contractor shall submit a consolidated list of contractor's personnel (O&M staff) indicating the name, date of birth, trade, grade, experience, qualification etc. for the O & M of the machine.

- (a) The Contractor shall deploy adequate workmen such as operator, electrician, fitter, etc so as to discharge all the obligations under the contract during the contract period. In emergency situations, the Contractor shall plan and make arrangements and bear all the costs associated with such arrangements for ensuring the presence of staff on-site for uninterrupted operation and maintenance of the Plant.
- (b) The core personnel of the contractor including engineers so deployed must have adequate qualification & experience in their respective fields such as assembly and sub-assembly of the machines/equipments including electrical circuit of electrical power/control system, PLC & VFD system (Automation System) etc. and are in a position to plan the maintenance requirement and rectify any defects developed during the operation of the system with minimum down time. The Contractor shall furnish the details of the man power deployment pattern in appropriate format for smooth O & M of the System to AIIMS within 15 days of issue of LOA for acceptance. Any modification to the originally accepted man power deployment pattern shall have to be got approved by the Contractor from AIIMS. Any deviation to deployment man power as per deployment pattern shall be recorded with justified reason failing which it may attract deduction from the bills of the Contractor to a reasonable extent as decided by the EIC.

During the continuance of the Contract, if the Contractor intends to induct new work men or make alterations in their grade, the Contractor shall communicate the same for appraisal of AIIMS.

- (c) In case of breakdown maintenance / major repair or replacement maintenance work, where AIIMS reasonably determines that the Contractor has not employed the required resources, then AIIMS shall have the right to ask the Contractor to arrange for such resources.
- (d) The Contractor shall be solely responsible for compliance to provisions of various labours, industrial, safety, any other laws applicable and all statutory obligations such as wages, allowances, compensations, EPF, Bonus, Gratuity, ESI, etc. relating to security of manpower deployed in AIIMS, Bhubaneswar. AIIMS shall have no liability in this regard. The latest Notification from the Office of the Chief Labour Commissioner (C), Ministry of Labour & Employment, Govt. of India shall be considered to determine the latest daily wage rates under different categories and any subsequent changes in statutory rates/changes as per Govt. orders constituting daily wages structure i.e EPF, ESI etc. will be amended time to time by the contractor.
- (e) The contractor shall be solely responsible for any accident/ medical/ health related liability/ compensation for the labour deployed by it at AIIMS, Bhubaneswar site. AIIMS shall have no liability in this regard.
- (f) The normal deployment of Contractors' personnel shall be preferably on 8 hrs. basis per day. However, in exigencies, extended duty may be performed by the Contractors' personnel with appropriate cooperation by the Contractor to such compliance. Extended duty beyond the shift hour can be adopted only on special requirements and certainly not as a practice.

- (g) The monthly wages of the workmen should be paid by the contractor by the 7th day of the succeeding month. The wage should be as per the minimum wage of Govt. of India notification from time to time. The contractor is advised to ensure that the payment is regularly credited to the bank account of the individual staff employed and pay-slips for respective payments are duly stamped and signed and issued regularly. Any delay beyond the schedule date of disbursement of salary to the workmen will invite penalty as decided by the EIC.
 - (h) If any man power from contractor side strike or show non-satisfaction due to payment issue or any other issue caused by the contractor, because of which the quality of work is hampered, strong action will be taken against the contractor as per the labour law & penalty as deemed fit shall be imposed.
 - (i) The staff employed by the contractor should be well behaved, polite, & courteous. The Contractor must disengage immediately the workmen in case of indiscipline, misconduct, negligence in duty, suppression of facts, deliberate mishandling of machine & equipment, sabotage, professional in-competency etc. and replace him with due intimation to AIIMS.

The manpower provided by the contractor shall not claim to become the employees of AIIMS, Bhubaneswar and there will be no Employee and Employer relationship between the manpower engaged by the Contractor for the deployment in AIIMS, Bhubaneswar site.
 - (j) Any damage caused by the workmen engaged by the Contractor to any machinery or equipment or installation of AIIMS due to negligence, ignorance or malafide intention shall be made good at the cost of the Contractor within a reasonable period of time acceptable to AIIMS, failing which the cost of the damages assessed by AIIMS shall be deducted from the bill of the Contractor or any money due to the Contractor.
 - (k) All individuals engaged in the performance of the Contractor's obligations under this contract shall be the employees of the Contractor and their working hours, rates of compensation and all other matters relating to their employment shall be determined solely by the Contractor in accordance with the applicable laws & regulations. The Contractor shall be solely responsible for employment policies that specify the requirements for staff working under him and such policies are to be consistent & in conjunction with the existing applicable labour laws and any government directives.
 - (l) The contractor shall provide uniform and Personal Protective Equipment (PPE) to their workmen once in every 6 months. The contractor shall take approval of uniform and PPEs from the EIC prior to issue to the workmen. The contractor shall issue Identity Cards to his workmen at his own cost and shall duly be intimate in writing the Engineer-In-Charge as and when there is any change.
- 3.1.2** During the period of contract, Watch & Ward and Housekeeping/cleanliness of the machines/equipments shall be the responsibility of the Contractor at his own cost.
- 3.1.3** The Contractor shall observe all applicable regulations regarding safety of man and machine.
- 3.1.4** Authority for Access: No person other than Contractor's Personnel shall be allowed to operate the machines / equipments except with the consent of AIIMS. The personnel of the

Contractor must possess proper identity card having their photographs. The Contractor shall grant access to all machine related data, records, reports and software that is being generated or used as part of its services for the plant for verification of AIIMS. All such data shall be the property of AIIMS and shall not be used by the Contractor for any purposes other than contractual requirements. Use of such information for any other purpose by the Contractor is strictly prohibited.

- 3.1.5 Routine interaction with AIIMS / his authorized representative regarding operation and maintenance of HVAC System shall be held in regular intervals as desired by AIIMS.
- 3.1.6 The O & M activities and also other activities (if any) shall be reviewed/discussed monthly in the site meeting to plan the operational & maintenance requirements which will be presided by Superintending Engineer / Executive Engineer. The Overall in-charge and Engineers of the Contractor shall attend this meeting.
- 3.1.7 The contractor shall notify AIIMS promptly regarding the occurrence of any emergency situation and take quick action to prevent any threatened damage, injury or loss to the machine or persons or property of AIIMS.

3.2 OPERATION:

- 3.2.1 The HVAC System will operate in 3 Shift basis (24 hrs a day) & 365 days a year. The normal shift timings are as follows:

1 st Shift	-	0600 hrs to 1400 hrs
2 nd Shift	-	1400 hrs to 2200 hrs
3 rd Shift	-	2200 hrs to 0600 hrs

Arrival & Departure of staff should be well-planned to up-keep the operation and maintenance requirement in tact round the clock.

3.2.2 Notice for Operation:

In order to have safe and effective operation of the system, the Contractor must ensure that the system is operated in the most efficient manner without sacrificing any safety aspect and giving due regard to the health of the machine/equipment as well as the working personnel. For this, the operating personnel should be conversant with the operating logic and control philosophy of machines/equipments and should be capable of recording the events / incidents during operation, noting the parameters & maintain the log books from time-to-time. Data such as load, important temperatures, pressures, levels etc. and other vital data observed during the operation shall be recorded.

- 3.2.3 Before and during operation of the system, observance of basic rules of operation, systematic and careful inspection of the individual parts of the system and equipment, checking the functions of all sub- assemblies and components in time are essential and to be ensured. The checks have to be made strictly in accordance with the check lists for the machine.
- 3.2.4 During operation, if any abnormality, defect / fault is noticed, the same shall be promptly communicated and remedial steps must be taken and the contractor shall place a suitable mechanism for rectification of problems so that delay in operation can be avoided.

- 3.2.5 In no case, running of system should be without proper & required no. of manpower. Similarly, operation of machines/equipments shall not be carried out in abnormal condition (s) and by compromising with safety of machines by repeated & prolonged by-passing of safety devices, field devices, etc. Normally bypassing of field devices and safety devices is not permissible. However, the same if done for operational urgency should be made good promptly.

3.3 MAINTENANCE:

- 3.3.1 Maintenance primarily aims at keeping the system in efficient and reliable operating conditions, minimizing the downtime during operation so as to ensure their maximum availability and productivity.

- 3.3.2 The contractor's scope covers deployment of different maintenance teams as per requirement comprising of engineer/ supervisor, technicians, skilled / semiskilled workmen for efficient and effective preventive, predictive and corrective maintenance during the term of the contract.

- 3.3.3 The contractor shall carry out the maintenance such as (a) Preventive Maintenance comprising Planned maintenance or schedules maintenance, Condition based Maintenance and (b) Corrective Maintenance (Unscheduled Maintenance) comprising Breakdown Maintenance and Post fault maintenance for all the systems or subsystems.

- 3.3.4 The contractor shall prepare a routine maintenance plan and ensure timely maintenance of the system as per the plan. The maintenance planning shall be made on the basis of

-  Preventive Maintenance Schedule
-  Pending scheduled activities
-  Observation made during execution of PMS
-  Observation made during operation
-  Condition monitoring
-  Observation of AIIMS inspection
-  Observation of OEM experts
-  Any additional works /requirements

3.3.5 **Written Clearance:**

Where the maintenance period is expected to exceed 4 hrs., the Contractor must obtain written clearance, in a format acceptable to AIIMS, with due intimation to the EIC & the concerned Executive Engineer clearly indicating the nature of maintenance intended to be undertaken, expected time of commencement and completion.

- 3.3.6 For undertaking the major maintenance activities, planning shall have to be done by the Contractor in advance and in consultation with the Engineer-in-charge so as to make the best use of the idle period. The contractor shall properly plan for execution of maintenance activities during non-operational time of systems/equipments.

3.3.7 **Periodic Inspection through OEM:**

The Contractor shall have to arrange for periodic inspection/servicing of Chillers, VFD System, Cooling Towers, Ozone Generator System, MCC Panels, Duct Heater Control

System etc. at least once in a year by the manufacturer's experts or their authorized experts to assess the health of the systems and make suitable recommendations to maintain the reliability of the system and for preparation of spares list. Also, as per the machine requirement, the Contractor shall arrange expert services for smooth & trouble free operation. The cost of such inspections to be conducted by the experts shall have to be borne by the Contractor without any additional financial liability to the AIIMS. A copy of the inspection report shall be forwarded by the Contractor to the Engineer-in-charge and the concerned Executive Engineer. However, AIIMS reserves the right to have independent audits of the health of the systems of the machine at the cost of the Contractor and the contractor shall implement the findings of such audits in a mutually agreed schedule.

- 3.3.8** In the event of any breakdown maintenance, the Contractor shall put in its best efforts to promptly attend the breakdown and bring the machine/equipment to operating condition as early as possible. If necessary, the Contractor shall arrange and deploy more manpower to reduce the breakdown period. Also, if the Services of any expert are required, the Contractor shall arrange the same in the most expeditious manner at his own cost. After each breakdown, a joint inspection of the Contractor and the Purchaser shall be conducted to assess the cause of the failure. In the event the joint inspection report established that the failure is due to negligence on the part of the Contractor, all the costs of repair including the cost of materials, spares and the services shall be borne by the Contractor. In case it is established that the failure is not due to negligence on the part of the Contractor, the cost of the materials/spares consumed for the repair and the cost of the expert shall be reimbursed by AIIMS as per actual on production of supporting documents. However, no cost shall be provided for the manpower engaged to execute the work.
- 3.3.9** Minor painting works of machines/equipments/pipe lines etc. for corrosion protection is included in scope of the Contractor. The Contractor shall promptly take remedial measures like mechanical chipping followed by application Zinc rich primer where rusting starts so that further deterioration can be avoided till the planned painting starts.
- 3.3.10** For repairing / Fabrication, Dismantling / assembly and overhauling of any component, AIIMS shall provide suitable space, if available, free of cost.

3.4 IMPROVEMENT PLANS:

R&D or future requirement reports in the field of HVAC by the experts of OEM should be submitted by the contractor after verified through Engineer-in-Charge on the yearly basis. During the course of the Contract, the Contractor may suggest improvement plans to make the HVAC system more reliable and efficient. AIIMS, BBSR shall examine such plans and if such plans are acceptable, AIIMS reserves the right to implement the plan either by engaging the Contractor or any other agency. In such cases, the Contractor shall extend all co-operations to AIIMS for implementation of any modification plan with least interruption to the site activities. In case the Contractor is entrusted with the modification work, the Contractor shall have to carry out the work without discontinuing the on-going operational and maintenance contractual obligations in any manner.

3.5 SUPPLY OF T & P and CONSUMABLES:

The Contractor shall provide all T&P, testing equipment, ladder(s), scaffolding, High Pressure Jet Pump, Vacuum Pump, Chain Pulley Blocks, High pressure hose for DA and

oxygen, cutting set with regulator, welding cable, holder, screen, scraping & cleaning hand tools, all consumables such as DA & Oxygen, different types of electrodes, oil seals, V-belts, Adhesive, Insulation material, G.I sheets for ducts, bolts & nuts, cotton cloth/wastes/rags, hydraulic oil seals, O-rings, gaskets, end – connectors, nipples & ferules, all types of Filters (Oil & Air), C-shine/ drain cleaning material, fuses, capacitors, Indication Lamps, Connectors, PVC tape, EPR tape, Ampere tape, Electrical Cleaning agent (CRC Lectra Clean , CRC 226 etc.), Diesel, Petrol, lubricants and Chemicals for chemical dosing of Cooling Tower Water etc. necessary for smooth O & M of the HVAC System. The contractor shall give warranty that the material supplied shall be new and free from all defects and faults and shall be highest grade and consistent with the established and generally accepted standards for the materials of the type ordered and shall perform in full conformity with the specifications and drawings. The contractor shall be responsible for any defects that may develop under the conditions provided by the contractor and under proper use, arising from faulty materials, design or workmanship such as corrosion of equipment, inadequate contact protection, deficiencies in circuit design and or otherwise and shall remedy such defects at his own cost.

All the mechanical, electrical & OEM spares required for operation, routine maintenance and breakdown maintenance of the **High Side of the HVAC System** will be supplied by AIIMS excluding consumables. But, all the required spares and consumables for operation, routine maintenance and breakdown maintenance of the **Low Side of the HVAC System** will be supplied by the **contractor**. However, any loss of spares due to faulty operation or inadequate maintenance of the High Side of the HVAC System shall be to the Contractor's account. The same is also applicable for other components of the machine.

Regarding maintenance of spares, it may be noted that new spares will be kept in the custody of AIIMS and as & when required it will be issued to the contractor for use. Once new spares are issued, its use & maintenance till discarding/reject/declaring it as scrap after attaining its life is under the scope of Contractor. Also overhauling & maintenance of used spares (in good condition) is under the scope of Contractor. The materials used for carrying out the work shall be of best locally available quality and the contractor has to carry out the necessary testing of the material as ordered by the Engineer-in-Charge for its conformity and all testing charges shall be borne by the contractor.

The contractor should keep the following consumable materials in stock for urgent rectification of any kind of fault. The stock of such consumables will be checked before releasing the quarterly bill. The bill may be hold if inadequate or insufficient quantity of consumables are found in stock.

1. Nitrile Rubber Insulation (25mm,19mm & 13 mm) – 100 Sq.mtr. each.
2. Adhesive – 20 Ltrs.
3. G. I Ducting Sheet (24 & 22 Gauge) – 50 Sq. Mtr each.
4. TEFC Motor (3 Kw to 7.5 Kw) – 1 no. each
5. Different sizes of Motor Bearings – 1 no each
6. V-belt as per size – 50 pcs.
7. Aluminum/Copper Lugs as per size – 6 pcs each
8. Grease/lubricants – 5 Kg.
9. Cotton Waste/rags – 5 Kg

10. Aluminum foil Tape/ Cello Tape – 20 Rolls each
11. Screw as per size – 1 Pkt each
12. Nuts & Bolts as per size – 1 Pkt each
13. Chemicals for treatment of Cooling Tower Water – 25 Ltr. each

3.6 In the event the required spare(s) & material(s) under AIIMS's scope are not available with AIIMS and the requirement is urgent, the Contractor shall arrange the same with due approval of AIIMS for which the expenses shall be reimbursed by AIIMS as per actual, against production of documentary evidence. The Contractor shall ensure that the spare parts, so procured are genuine and are either from the OEM or from their authorized agent(s) / service providers.

3.7 ADVANCE NOTICE FOR SPARES :

The Contractor shall keep AIIMS informed of the critical spares requirement well in advance considering the lead time of the material procurement with sufficient justification, so as to avoid long machine down time as well as a fat inventory.

3.8 MAINTENANCE OF RECORDS :

Following Documents / Records are to be maintained at site by the contractor as per detailed in Appendix - H:

1. Daily Log Book
2. Complain Log Book
3. Chiller reading Log Book
4. Site Materials Account Register
5. Equipment History Card/ checklist
6. Power Failure & Chiller Tripping Record
7. Chiller Plant check list
8. Cooling Tower Check List
9. Tertiary Pump Check List
10. AHU, HRU, AV, Exhaust/ Fresh Air, FCU, Cassette AC, Ozone Generator & VOC Sensor Check List.
11. Pressure Gauge and Temperature Meter calibration test once per year'
12. Maintenance Schedule Activity
13. Attendance Register
14. Breakdown Report
15. Maintenance Report:
 - a) Monthly availability of HVAC system as per the format acceptable to AIIMS.
 - b) Report on house -keeping & safety as per the format acceptable to AIIMS.
 - c) Spares Consumption Report as per the format acceptable to AIIMS.
 - d) Satisfactory compliance to site order or site instruction of AIIMS.
 - e) Air balancing and water balancing should be done in the alternate quarter and the report of the same should be submitted after the verification of the concerned JE.

The format of the above Log Books and reports for reporting shall be prepared and implemented as per the requirement of the Engineer-in-charge.

3.9 SAFETY :

All equipment shall be complete with approved safety devices wherever a potential hazard to personnel exists and with provision for safe access for personnel to and around equipment for operation and maintenance functions. Special care shall be taken to ensure against entry of rats, lizards and other creeping reptiles which may create electrical short circuit inside live equipment.

Safety aspects in work places have to be followed as per relevant Standards & Codes. Any accident or damage to life of man and machinery shall be treated as negligence & it is purely the responsibility of the contractor. AIIMS, Bhubaneswar will not be responsible for any accidents or damages. Safety of all the staff under this contract is the sole responsibility of the contractor. There shall be no liability on AIIMS, Bhubaneswar to pay any compensation arising out of any labour dispute or accident etc. at site.

4.0 FINAL INSPECTION, ACCEPTANCE AND PAYMENT:

- 4.1** The Contractor shall, one month prior to the expiry of the Contract Period, notify the Purchaser in writing to take over the System. The Purchaser shall make a final inspection within 15 days of receipt of such Notice from the Contractor and take over the system on expiry of the Contract. Normal wear & tear shall be acceptable to the Purchaser. In case of any defect or abnormality observed during inspection, the same shall be made good by the Contractor at his own cost within a reasonable period agreed between AIIMS & the Contractor failing which the final payment shall be withheld. Also warranty period will start after compliances are made by the Contractor.
- 4.2** The Contractor shall remove all of its tools, equipment and materials brought by the Contractor.
- 4.3** The Contractor may remove its entire personnel except as otherwise instructed by AIIMS. The Contractor shall be solely liable for resettlement, compensation or any other obligations in respect of the Contractor's personnel engaged during the term of the contract. The Contractor shall keep AIIMS indemnified against claims, if any, pertaining to his personnel.
- 4.4** The Contractor shall settle all dues, recoveries, insurance claims, if any, with AIIMS.
- 4.5** The Contractor shall handover all the records / instruction manuals/ documents received from AIIMS in properly bound and documented condition.
- 5.0** A dedicated telephone number is to be provided by the contractor for logging of complaints.
- 6.0** At the time of natural calamity like Cyclone, earth Quake, heavy Rain etc. all safety measures must be followed by the contractor as per the standard SOPs for HVAC System.
- 7.0 VENDOR LIST:** The Bidder, in it's technical offer, must submit a vendor list of reputed makers for various components / bought out items which is going to be followed for execution of the work. The same shall be followed only after approval of **AIIMS, Bhubaneswar**.

- 8.0 SITE SAFETY & ENVIRONMENT PROTECTION:** The Contractor, during the execution of the work, shall be solely responsible for complying all the statutory requirements of Government bodies or any statutory bodies with respect to site health, safety and environment.

Technical Bid (Eligibility Criteria)

The scanned copies of the following mandatory documents to be uploaded on e-Tendering Portal in the following format.

S.No.	Details/Particulars	Uploaded (Yes/No)	Page No.
(A)	Appendix `A to B` duly filled in (Pages 16 & 17 ref.) and signed with stamp.		
(B)	Certificates of Work Experience & Completion Certificate of Similar Work from Client not below the Rank of Executive Engineer or equivalent, as mentioned in Ser. No. - 4, Page No. - 4 refer under Eligibility Criteria		
(C)	Certificate of Registration for GST and acknowledgement, up to date filed return if required.		
(D)	Attested Copies of PAN Sheets		
(E)	Copies of Balance Sheets		
(F)	Copies of undertaking for the servicing of Air Conditioners		
(G)	Copies of ESI Registration		
(H)	Copies of EPF Registration. (Latest submitted challan copy)		
(I)	The Bidder should have their Registered Office/Branch in Bhubaneswar. If not, an Office should be opened in Bhubaneswar within 30 (Thirty) Days of the award of Work. Details of Address Proof of Office located at Bhubaneswar should be given.		
(J)	Declarations to be given by the Tenderers (as per Page 11.)		
(K)	Each page of the e-tender documents should be duly signed with seal otherwise the bid shall become invalid.		

AFFIDAVIT

(To be submitted on Rs. 100/- Stamp Paper)

I/We hereby certify that; the above firm has not been ever blacklisted by any Central/State Government/Public Undertaking/Institute on any account.

I/We also certify that, Firm will supply the item(s) as per the specification given by Institution and also abide all the Terms & Conditions stipulated in Tender.

I/We also certify that, the information given in Bid is true and correct in all aspects and in any case at a later date, it is found that any details provided are false and incorrect, any contract given to the concerned firm or participation may be summarily terminated at any state, the firm will be blacklisted and Institute may impose any action as per e-Tender Rules.

“I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee”.

Business Address: -

Name:

(Signature of Bidder with Firm's Seal)

Place: _____

Dated: _____

FORM OF PERFORMANCE SECURITY (BANK GUARANTEE)

1. In consideration of the Director, AIIMS, Bhubaneswar (hereinafter called “the Government “) having offered to accept the terms and conditions of the proposed agreement between and (hereinafter called “the said Contractor(s)”) for the work (hereinafter called “the said agreement}” having agreed to production of a irrevocable Bank Guarantee for Rs. _____(Rupees _____only) as a security/ guarantee from the contractor(s) for compliance of his obligation in accordance with the terms and conditions in the said agreement.

I/We (hereinafter referred to as Bank) hereby (Indicate the name of the Bank) undertake to pay to the Government an amount not exceeding Rs. _____(Rupees _____only) on demand by Government .

2. I/We do hereby undertake to pay the (Indicate the name of the Bank) amount due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor (s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.(Rupees_____only).

3. I/We the said bank undertake to pay to the Government any money so demanded not withstanding any dispute or disputes raised by the contractor (s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

4. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor (s) shall have no claim against us for making such payment.

5. I/ We further agree that the guarantee herein contained (Indicate the name of Bank) shall remain in full force and effect during the period that would be taken for the performance of the said agreement and it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid, and its claims satisfied or discharged, or till Engineer-in- charge on behalf of the Government, certifies that the terms and conditions of the said Agreement have been fully and properly carried out be the said contractor (s) accordingly discharges this guarantee.

6. I/We further agree with the Government that the (Indicate the name of Bank) Government shall have the fullest liberty without our consent, and without affecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor (s) and to forebear or enforce any of the terms and conditions relating to the said agreement & we shall not be relieved from our liability by reasons of any such variation or extension being granted to the said contractor (s) or for any forbearance, act of omission on that part of the Government or any indulgence by the Government to the said contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties would , but for this provision, have effect of so relieving us.

7. The guarantee will not be discharged due to the change in the constitution of the Bank or the contractor (s).

We lastly undertake not to revoke this (Indicate the name of Bank) guarantee except with the previous consent of the Government in writing.

8. This Guarantee shall valid up to _____ unless extended on demand by Government, notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs. _____ (Rupees _____ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this Guarantee all our liabilities under the Guarantee shall stand discharged.

Dated the _____ day of _____ for _____

(Indicate the name of Bank)

Format for Agreement
(To be made on Rs 100/- Judicial Stamp Paper)

This Agreement is made at.....on this.....day of.....2022.

BETWEEN

Director, AIIMS, Bhubaneswar represented through Superintending Engineer, AIIMS, BHUBANESWAR,

....., (Hereinafter referred as the) (Address)

“**Principal/Owner**”, which expression shall unless repugnant to the meaning or context hereof include its success or sand permitted as signs)

AND

..... (Name and Address of the Individual/firm/Company) through..... (Hereinafter referred to as the (Details of duly authorized signatory)

“**Bidder/Contractor**” and which expression shall unless repugnant to the meaning or context hereof include its success or sand permitted as signs)

Preamble

WHEREAS, the Principal/Owner has floated the Tender (NIT No.....)

(here in after refer red to as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for: “**Operation & Comprehensive Maintenance Contract of High side and Low side of HVAC System of AIIMS, Bhubaneswar**” hereinafter referred to as the “**Contract**”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the Land, Rules & Regulations, Economic use of resources and of fairness/ transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose afore said both the parties have agreed to enter to this Agreement (hereinafter referred to as “**Pact**”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, inconsideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under: -

Article - 1: Commitment of the Principal/Owner.

1. The Principal/Owner commit itself to take all measures necessary to prevent corruption and to observe the following principles:

- (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender processor the Contract execution.

(c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2. If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC)/Prevention of Corruption Act, 1988 (P C Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article - 2: Commitment of the Bidder(s)/Contractor(s)

1. It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standard and makes, and report to the Government/Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution: -

(a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind what so ever during the Tender process or during the execution of the Contract.

(b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

(c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender

on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to, or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**

5. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may be fall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article - 3: Consequences of Breach.

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right: -

1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article-2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. **Such exclusion may before vigour for a limited period as decided by the Principal/Owner.**
2. **Forfeiture of EMD/Performance Guarantee/Security Deposit :** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contractor has accrued the right to terminate/determine the Contract according to Article-3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

3. **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article - 4: Previous Transgression.

1. The Bidder declares that no previous transgressions occurred in the last 05 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender processor action can be taken for banning of business dealings/holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
3. If the Bidder/Contractor can prove that he has resorted/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/ Owner may, at its own discretion, revoke the exclusion prematurely.

Article - 5: Equal Treatment of all Bidders/Contractors/Sub-contractors.

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-contractors a commitment in Conformity with this Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
2. The Principal/Owner will enter in to Pacts on identical terms as this one with all Bidders and Contractors.
3. The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article - 6: Duration of the Pact.

1. This Pact begins when both the parties have legally sign edit. It expires for the Contractor/Vendor 12 months after the completion of work under the contractor till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.
2. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, AIIMS, Bhubaneswar.

Article - 7: Period of contract.

The period of contract shall be 2 years from the date of commencement of the contract and can further be extended at the discretion of AIIMS, Bhubaneswar and upon mutual consent of both parties, subject to satisfactory performance by the contractor with same term and condition and rate of second year of the contract.

Article - 8: terms & Conditions of Payment.

- a. Running payment for the work done shall be released quarterly by AIIMS, Bhubaneswar. The vendor shall submit the documents along with the bill as per NIT Clause No.5 (Payment Terms)

- b. Security Deposit of 2.5% will be deducted from the running bills, which shall be released after 6 months after date of completion of work without any interest there upon.
- c. Income Tax as applicable shall be deducted from the bills unless exempted by the Income Tax Department.
- d. Labour cess of 1% will be deducted from the bills.
- e. **Final Bill Payment:** The agency shall submit final bill along with all the documents related with PF, ESIC to AIIMS, BBSR in addition to all maintenance schedule registers, documents etc. (as per Clause 5) related to the work. The agency also formally handover all the equipment's in good working condition, without any damage as handed over to them by AIIMS, BBSR.

f. Penalty Clause:

- I. Availability factor of HVAC system as per norms on demand, maintaining the rated capacity, up keeping of proper cleanliness/housekeeping, carrying out proper maintenance, attending breakdown in time (rectification of faults) and following the safety aspects, statutory norms and regulations are the essence of this contract. Therefore, the Contractor shall meet the performance parameters / norms / obligations pursuant to the contract. Failure on the part of the Contractor to comply with the requirements shall attract a deduction on account of underperformance as mentioned below:

II. Minor Breakdown: On getting the minor breakdown complain or failure of the HVAC system, Contractor's maintenance team must response within the **3 Hours** and carry out necessary repairs to restore the system in normal condition, falling which penalty of **₹1,000 per day upto 10% of the CMC contract value** will be recovered from the contractor.

III. Major Breakdown: On getting the major breakdown complaint or failure of the HVAC system, Contractor's maintenance team must response within the **3 Hours** and informed the concern AE/JE immediately regarding the complaint. After joint inspection with concern AE/JE, the complaint must sort out within the **72 Hours** or **timeline given by the concern AE/JE according the nature of complain**, the necessary repairs must be carried out to restore the system in normal condition, falling which penalty of **₹3,000 per day upto 10% of the CMC contract value** will be recovered from the contractor.

For any major repair or over-hauling work, the contractor shall inform in advance to the Executive Engineer before 72 hours of starting the work.

g. DEDUCTION FOR POOR OPERATION and/or MAINTENANCE:

Poor Operation and / or Maintenance shall mean

- i) Operation of machine(s)/equipment(s) in abnormal condition(s).
- ii) Compromising in safety of machines by repeated & prolonged by-passing of safety devices, field devices, and monitoring/controlling devices during operation.
- iii) Tampering of Operational limits of the machine/equipment.
- iv) Consecutive failure of any system / equipment or any component / sub-system i.e. Repetition of a fault for the same reason.
- v) Maintenance not following the sound engineering practice.

- vi) Non availability of any component in position which are available at the time of taking over the machine.
- vii) Nonworking of any system continuously without information to AIIMS.
- viii) Non execution of deficiencies communicated by AIIMS in a mutually agreed period.
- ix) Non-attendance and non-completion of breakdown in time agreed between AIIMS and the Contractor.
- x) Unauthorized absent of any manpower or a workman found sleeping/ casual sitting during working hours or not following the Institute's general guidelines etc.
- xi) Any workman found to be not wearing uniform /PPE repeatedly during working hours.
- xii) Any Tools & Tackles or the stock of material not found sufficiently and hampering the day to day work.

Operation and /or Maintenance of machine/equipment shall be treated under poor Operation and / or Maintenance if there is occurrence of any one situation or combination of situations as mentioned above as per the EIC. This will attract a deduction from the bill. The deduction to be made is as under.

For each situation (one situation or combination of situations treated as each situation) found or occurred, ₹2,000/- shall be deducted from the corresponding bill.

h. DEDUCTION DUE TO POOR CLEANLINESS / HOUSEKEEPING:

The machine/equipment is to be kept in a reasonably cleaned condition. In case the level of cleanliness/housekeeping is not up-to the satisfaction of EIC during inspection, the contractor shall initiate immediate steps to undertake cleaning/housekeeping work in a time bound manner failing which the Contractor shall be liable for a deduction of ₹5,000/- for the 1st violation and ₹10,000/- for the 2nd violation from the quarterly bill. In the event the Contractor is found to be negligent in house-keeping continuously, it may result in termination of the Contract.

i. DEDUCTION FOR NON PROVISION OF PERIODIC INSPECTION:

A deduction of ₹30,000/- (Rupees Thirty Thousand) only shall be made from the Contractor's bill for not providing expert services in time (i.e. once in a year) as specified (Periodic Inspection) of Scope of Work on each occasion for each field i.e. Chillers, Cooling Towers, Ozone System, VFD system, Duct Heater Controller & ACDB Panel.

j. PENALTY FOR INADEQUATE PLANNING FOR CRITICAL SPARES:

In case of requirement of any material/component for which AIIMS has not been informed in advance, the Contractor shall arrange the material /component and make the machine/equipment functional at his own cost. If AIIMS arranges the material / component, the cost will be recovered from the monthly bill of the Contractor. In addition, the downtime of machine/equipment will be considered towards non-availability of machine/equipment and deduction as decided by the EIC shall be effected from the bills.

Article - 9: Other Provisions.

1. This Pact is subject to Indian Law, place of performance and jurisdiction is the **Bhubaneswar** of the Principal/Owner, who has floated the Tender.
2. Changes and supplements need to be made in writing. Side agreements have not be unmade.
3. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
4. Should one or several provisions of this Pact turnout to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
5. It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Agreement/Pact, any action taken by the Owner/Principal in accordance with this **Agreement/Pact or interpretation thereof shall not be subject to arbitration.**

Article - 10: LEGAL AND PRIOR RIGHTS.

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Pact.

IN WITNESS WHEREOF the parties have signed and executed this Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal/Owner) (For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(Signature, Name and address) 2.
(Signature, Name and address)

Place:

Dated:

PROFORMA OF SCHEDULES

SCHEDULE 'A'

(Reference to General conditions of Contract.)

Name of Work: Operation & Comprehensive Maintenance Contract of high side and
Low side of HVAC System of AIIMS, Bhubaneswar

(a) Estimated Cost of Work: ₹ 4,82,40,416/- (Rupees Four Crores Eighty-two Lakhs Forty Thousand Four Hundred Sixteen only including GST)			
(b)	Performance Guarantee	=	03% of Tendered Value
(c)	Security Deposit	=	2.5%
(d)	Earnest Money Deposit	=	02% of Estimated Value

SCHEDULE 'B'

GENERAL RULES & DIRECTIONS:

Officer Inviting Tender: - Executive Engineer (AC & R) , AIIMS, Bhubaneswar

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined: -

in accordance with Clause -12.2 &12.3 = 50%

Definitions

See below

2 (v) Engineer-in-Charge : Superintending Engineering, AIIMS, Bhubaneswar

2(viii) Accepting Authority: Director, AIIMS, Bhubaneswar

2(x) Percentage on cost of materials and labour to cover all over heads and profit : 15%

2(xi) Standard Schedule of Rates - Central Public Works Department Schedule of Rates 2018 at Delhi with up to date correction slips

9(ii) Standard AIIMS Contract Form - GCC for CPWD Works - 2020 as amended and up to and including correction slip

(i) Time allowed for submission of Performance guarantee, Program Chart (Time & Progress) and applicable Labour Licenses, Registration with EPFO, ESIC & BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance : 15 Days

(ii) Maximum allowable Extension with late fee @ 0.1% of Performance Guarantee amount beyond the period provided in (i) above. : 01 to 15 days

Clause – 2.

Authority for fixing compensation under Clause 2 : Director, AIIMS, Bhubaneswar

Clause – 2A.

Whether Clause 2A shall be applicable : **No**

Clause – 5.

Time allowed for execution of work	:	24 Months (after issue of work order).
Time of start of work	:	Within fifteen days after issue of work order.
Number of days from the date of issue of letter of acceptance for reckoning date of start	:	30 Days
Authority to decide fair & reasonable extension of time for completion of work	:	Superintending Engineer, AIIMS, Bhubaneswar

Clause – 6A.

Whether Clause 6A shall be applicable	:	No.
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Clause – 7A.

Whether clause 7A shall be applicable	:	YES.
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Clause – 10B(ii).

Whether Clause 10B(ii) shall be applicable	:	No.
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<u>Clause – 10C.</u>	:	Not applicable.
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<u>Clause – 10CA.</u>	:	Not applicable.
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Clause – 16.

Competent Authority for deciding reduced rates	:	Superintending Engineer AIIMS, Bhubaneswar
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Clause – 25.

<i>Settlement of dispute & Arbitration</i>	:	<i>Director, AIIMS, Bhubaneswar</i>
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Clause – 36(i).

Requirement of Technical Staff and rate of recovery in case of non-compliance shall be as per the following table: -

Value of Work	Ser. No	Minimum qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical representative)	Minimum Experience in years	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
							(Figures)	(Words)
For Agreement amount up to Rs150 Lakhs	(a)	Graduate Engineer OR Diploma Engineer	Elect/ Mechanical	Principal Technical representative	02 years for Graduate Engineer/ 05 years for Diploma Engineer	1	Rs 15000/-	Rs Fifteen Thousand only

BILL OF QUANTITY

Name of the work : Operation & Comprehensive Maintenance Contract of High side and Low side of HVAC System of AIIMS, Bhubaneswar.

Sl. No	Item Description	Unit	Qty	Rate (in Rs)	Amount (in Rs)
01.	(A) Labour Component Charges towards supply of manpower for effective Operation & Maintenance of High side and low Side of the HVAC System of AIIMS, Bhubaneswar	Year	2	59,78,023/-	1,19,56,046/-
	(B) Material Component Charges towards supply of consumables (for both High side & Low Side) and Spares for Low Side of HVAC system for carrying out the CMC of 2900 TR HVAC System.	Year	2	1,43,71,977/-	2,87,43,954/-
02.	Cost for Chemical dosing for Cooling Towers.	Year	2	11,85,900/-	23,71,800/-
Add GST @ 12%					51,68,616/-
Total (Including GST):					4,82,40,416/-
In words: Four Crores Eighty-two Lakhs Forty Thousand Four Hundred Sixteen.					

Name : _____

Business Address: _____

Signature of the Bidder: -

Date : _____

Place :

Seal of the Bidder _____

PROFORMA FOR QUOTING RATES

Name of the work : Operation & Comprehensive Maintenance Contract of High side and Low side of HVAC System of AIIMS, Bhubaneswar.					
E NIT No. AIIMS/BBSR/ENGG/ACR/CENTRAL AC/NIT/20					
Estimated cost put to tender : - Rs.4,82,40,416/-					
Name of Contractor :					
Sl. No	Name of Component	Estimated Cost (Rs.)	Percentage above/ below the Total Estimated Cost	% in Figures	Total Cost (Rs.)
1.	Operation & Comprehensive Maintenance Contract of High Side and Low Side of HVAC System of AIIMS, Bhubaneswar	Rs.4,82,40,416/-			
Contractor Quoted Rate in Words					

Note : I, the contractor certify that I am filling this template after understanding all the items of Schedule of Quantity of e NIT.