



**PESHAWAR INSTITUTE OF CARDIOLOGY
(MTI)
BID SOLICITATION DOCUMENTS
FOR
OPERATION AND MAINTENANCE OF HVAC SYSTEM FOR THE YEAR
2021-22
Tender Ref : PIC-037
After Pre Bid**

Note: The prospective bidder is expected to examine the Bidding Documents carefully, including all Instructions, Terms & Conditions, and Specifications etc. Failure to furnish all information required by the Bidding documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect would result in the rejection of the Bid.

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1. BACKGROUND:

Peshawar Institute of Cardiology - MTI (PIC-MTI) Hospital is situated in **phase 5, Hayatabad**. **PIC-MTI** has **250 beds** including 6 Intensive Care Units (ICU), Cardiac Care Units, 6 Operation Rooms and 6 Catheterization Laboratories. Also having state of the art diagnostics services (Laboratory & Radiology). The **HVAC Plant** of the said Hospital is a state of the art **2100 RT, Absorption Chillers System (Hitachi Japan)** with a centralized Automation System (BMS) & a number of Floor Based AHUs, MAHU's & FCU's units.

2. INTRODUCTION:

Peshawar Institute of Cardiology-MTI invites item wise sealed bids from the eligible bidders (General Order Suppliers) for procurement of **Operation and Maintenance of Complete HVAC System at Peshawar Institute of Cardiology-MTI** through open Competitive Bidding under rule 6(2)(b) "**Single Stage Two Envelope**" bidding procedures of Khyber Pakhtunkhwa Public Procurement Regulatory Authority (KPPRA) Rules 2014.

<i>Description</i>	<i>Dates</i>
Pre-bid meeting	28 -07- 2021 at 10:00 am
Closing/Last submission/Opening	10-08-2021 11:00 hours & 11:30 Hours
Bid security	Rs. 500,000/-
Tender Process	Single Stage Two Envelope

3. INSTRUCTIONS TO BIDDERS:

1. This Bidding procedure will be conducted in light of Khyber Pakhtunkhwa Public Procurement Regulatory Authority (KPPRA) Laws, Rules made there under along with Standard Bidding Documents.
2. Any bid received after the deadline for submission of bids shall not be entertained and shall be returned unopened to the Bidder.
3. All the bidders are required to provide annexure wise complete requisite documents with page marking for their Technical Evaluation / Qualification as prescribed under the rules.
4. The bid should be complete in all respect and must be signed by the bidder.
5. All prices quoted must be in Pak Rupees (PKR) and should include all applicable taxes. If not specifically mentioned in the Quotation, it will be presumed that the prices include all the taxes. PIC Peshawar is exempted from GST.
6. Bidders are essentially required to provide correct and latest postal/email/web addresses, phone/mobile/fax numbers for actively and timely communication.
7. For any query, clarification regarding Services / Bid Solicitation Documents, the applicants may

send a written request at least one day prior to the opening date.

8. The Bidder may after its submission withdraw its bid prior to the expiry of the deadline prescribed for submission of bids. Withdrawn bids will be returned unopened to the Bidders.
9. Any bid not received as per terms and conditions laid down in this document are liable to be ignored. No offer shall be considered if:
 - a. Received without earnest money;
 - b. It is received after the date and time fixed for its receipt;
 - c. The tender document and the bid is unsigned;
 - d. The offer is ambiguous;
 - e. The offer is conditional/optional i.e. advance payment, or currency fluctuations etc.
 - f. The offer is from blacklisted firm in any Federal / Provincial Govt. dept.
 - g. Hand written bids shall NOT be accepted; it must be typed.
 - h. Only typed tender on original prescribing letter pad, sealed & signed (Every Page) should be submitted. The quoted Price must be preprinted and hand written quoted price will not be acceptable. Optional or double rates for single item is not allowed.
10. Usage of correction fluid & corrections are strictly prohibited unless duly initiated.
11. Any erasing / cutting etc. appearing on the offer, must be properly signed by the person signing the tender.
12. Bids will be rejected if the Bid is in some way connected with bids submitted under names different from his own.
13. In case of Bid Tie, the decision will be taken by making toss/draw/Recall sealed quotation in front of the bidders.
14. Any direct or indirect effort by a bidding firm to influence this institution during the process of selection of a bidder or award of contract may besides rejection of its bid result into its disqualification from participation in the PIC Peshawar's future bids.

4. ELIGIBLE BIDDERS:

- a. Bidders must give compliance to the below mentioned clauses as these are mandatory to being eligible for the bidding process. Relevant certificates must be attached.
- b. The bidder must be registered with Income / Sales Tax Department, reflected as Active Tax Payer on the list of FBR.NTN and KPK Professional tax.
- c. The bidder shall provide an undertaking that the bidder has not been declared black listed by any Governmental/ Semi-Governmental institutions.
- d. Bidders shall not be eligible to bid if they are under a declaration of Ineligibility for corrupt and fraudulent practices issued by any government organization in accordance with the Section 44(1) KPPRA Rules 2014.
- e. The bidder must be registered with PEC for the relevant Specialty & having minimum of five years of experience in maintenance of Absorption Chiller system.
- f. No Joint Venture Will Be Considered.

5. TERMS AND CONDITIONS

Period of Contract:

- a) This contract shall be valid for an initial period of one year. Based on the satisfactory, the period

may be extended on yearly basis for a further maximum period of 01+01 years i.e. (01+01+01=03 years) at the sole discretion of the Competent Authority (Building & Facility manager). This contract may be terminated before it expires by giving at least one-month notice to the contractor without any reason.

- b) **Price:** Quoted rates shall be valid for the entire period of the contract i.e. (01+01+1=03 years).
- c) **Payment:** Payment shall be made on monthly basis within fifteen (15) days from the date of receipt of bill duly certified & recommended by Manager Building & Facilities & HVAC Engineer PIC-MTI.
- d) **Performance:** The performance of the contractor will be continuously evaluated by Building & facilities manager & HVAC Engineer PIC-MTI.
- e) **Certification of bills:** A fitness certificate regarding performance and excellent condition of HVAC System, countersigned by Building & facilities Manager & HVAC Engineer PIC-MTI, will be submitted by the contractor along with there each monthly bill.
- f) **Hiring of Contractor Staff:** Interview from the contractor staff members for the operation & maintenance of HVAC system at PIC will be taken by Building & facilities manager & HVAC Engineer PIC-MTI.
- g) **Tools & Equipment:** The contractor shall provide all tools; Maintenance and Instrumentation, necessary for the Operations & Maintenance of HVAC System.
- h) **Attendance register:** The Contractor shall be responsible for maintaining daily attendance register under the supervision of PIC HVAC team. HVAC Engineer PIC-MTI reserves the right to deduct the cost of any absent staff or staff that doesn't fulfill the minimum requirements.
- i) **Duty Roster:** Contractor will depute staff as per advice of HVAC Engineer PIC-MTI and the duty roster shall be approved from him.
- j) **Reports:** Daily operation report, Preventive maintenance checklists will be prepared and signed by contractors site engineer in which all operation & maintenance details will be written on a printed on hospital format approved by HVAC Engineer PIC-MTI. One set would be submitted to HVAC Engineer PIC-MTI every day.
- k) **Uniform:** Contractor, s employed shall remain in identifiable, neat and clean uniform while on duty.
- l) **Penalty:** Details given on page 7.
- m) **Checklists:** Contractor will follow the preventive maintenance checklists, approved by HVAC Engineer PIC-MTI.
- n) **Contractor staff accommodation:** Contractor must provide accommodation for his employees near to hospital. Hospital will not provide accommodation to contractor staff.
- o) **Contractor Staff Salaries:** Contractor must pay salaries to their staff as per government directives.
- p) **Staff Training:** Contractor must train their staff on PIC HVAC system for at least one week under the supervision of well qualified & experience person. Training report will be submitted to HVAC Engineer PIC-MTI on daily basis. **(New Addition)**

6. GENEAL CONDITIONS:

1. The Contractor Shall Provide Services for smooth and uninterrupted operation as well as Maintenance, services and general upkeep for the HVAC System or equipment's.
2. Contractor shall refer to O&M (Operation and Maintenance) manuals of HVAC equipment's for performing maintenance and upkeep work and follow instructions.
3. The Contractor shall ensure that the Contractors employee(s) attend to any instruction/call from

the hospital immediately upon such communication. The Contractor employees shall obtain confirmation/ approval from the hospital Authorized representative (HVAC Engineer) before execution of services.

4. A complete daily general checking of the entire installation shall be carried out by the contractor's employees and they will immediately convey any abnormality in the equipment and allied system, as well as make immediate arrangements to set right such abnormalities. Moreover, contractor shall maintain related records and reduced such records on demands by HVAC Engineer.
5. The Contractor shall attend to the maintenance or repair works on priority basis after office hours or on holy days Sunday if so warranted, or at any time due to emergencies and will provide services for smooth operation in the possible time. The contractor site engineer's supervisor shall inform the hospital engineer in-charge will in advance about any Maintenance /repaired/service works scheduled to be done by the contractor after office hours or Sunday/holydays so that necessary security arrangement and access for the contractor staff be made the engineer in-charge.
6. A complete general checking of the entire installation/ HVAC System and its allied equipment / accessories shall be carried out by the contractor at least once a month during which the defective parts shall be replaced by new ones, if required.
7. Routine maintenance will not be limited to the limited to the working schedule. The contractor must carry out other repair/Maintenance operation & services upkeep as when required so as to keep the equipment in top running condition.
8. Contractor will be responsible to make good all the damages to all appliances due to abnormal HVAC Systems supply. They may advise the client about all protective devices that may be installed in HVAC System to avoid damages/loss of connected load / circuits/ apparatus with HVAC system supply.
9. The contractor employees at site shall immediately report to the contractor and the hospital HVAC Engineer if the fault is beyond their capability, and the contractor shall depute its team immediately to resolve the issue.
10. Parts and spares, if required, may be provided by the hospitals or arranged by the service provider immediately. However, in case of purchase of the parts and spares by the service provider, the actual cost incurred on the material and its transportation only would be borne by the hospital. Approval to this effect shall be required to be obtained prior to such purchase. Payment to the contractors will be made only on "satisfactory work certificate" duly signed by the engineer in charge or his authorized representative. Service provider will be paid separately as per his estimate with prior approval of hospital for any spare part required for replacement on submission of original receipts and warranties there of if applicable.
11. Contractor will attend to all types of faults, defects, repair, servicing, maintenance, break down/failures promptly. Material will be provided by the hospital. Amendment
12. The contractor shall be responsible for
13. Dosing water treatment chemicals for cooling tower (Deleted)
14. Removal and fixing of false ceiling tiles as per original as required by the contractor for carrying out his work. The contractor shall be responsible for any damage to the false ceiling framing and tiles.
15. Cotton, duster, cleaning brush, vacuum cleaner all types of HVAC tools etc. will be arranged by the contractor from its own sources for which no extra payment will be made by the hospital. Amendment
16. The contractor shall carry out the services in accordance with professional codes and instructions and with the required skilled labor under the direction of the experienced engineer in charge of the contractor and in line with service manual of the supplier / manufacture. The contractor personal shall provide servicing for all parts of HVAC system. Contractor will not make any alternation/

modification etc., in exiting HVAC system machinery without prior written approval of the hospital HVAC Engineer.

17. HVAC system room and its vicinity / area pertain to HVAC system and allied equipment will be kept clean and tidy and light / fan etc. repairing shall be performed by the contractor staff.
18. contractor, s employed shall not leave the site without handing over the charge to next shift.
19. contractor, s employed will not be allowed to leave their duty without permission of the hospital HVAC Engineer.
20. All routine maintenance and normal repairs will be done by the contractor. Materials will be provided by the hospital. (Amendment)
21. The contractor shall submit reports for modification in equipment or processes to improve the performance of system for smooth operation.
22. contractor must keep sufficient stock & record of running spare parts for immediate replacement to avoid interruption in smooth operation. spare parts will be provided by the hospital. (Amendment)
23. HVAC plant room and its vicinity /area pertain to HVAC system and allied equipment will be kept clean and tidy and light / fan etc. repairing shall be performed by the contractor, s staff. Materials will be provided by the hospital.
24. The contractor shall submit an estimate to the HVAC Engineer PIC-MTI for approval before carrying out any major repairs which is not covered under this contract. The estimate shall be submitted expeditiously so as not to disturb the plant operation. The contractor shall under take the work on approval by the employed of the estimate indicating there in the extent up to which employer should share the cost.
25. The contractor shall ensure that the air – conditioning plant is operated, maintained and serviced efficiently to avoid breakdown during normal operation. The contractor shall also ensure economical consumption of the material and spare parts supplied by the employer. The spare parts not available in the stock shall be arranged / purchased by the contractor after obtaining approval from the employer pending reimbursement of the cost on invoice / bills/ cash memo. The employer may also at is discretion make direct payment to the suppliers.
26. The temperature on each floor at different location shall be recorded at least twice daily.
27. The equipment operational observation shall be recorded at suitable interval.
28. The contractor shall ensure round the clock 24/7 support including on Saturdays, Sundays and other holidays. In this regard, the contractor shall dispatch its assigned technical staff as and when required by the hospital at the earliest.
29. contractor will carry out the weekly, monthly, seasonal/annual servicing, de-scaling, flushing and over hauling of HVAC system as directed by the engineer in charge and as per manufacturer's instructions. For overhauling of chillers separate payment will be paid to contractor. (Amendment)
30. Contractor will work after office hours and on holidays in order to attend any breakdown, failure, repair, maintenance and servicing if required or directed by the engineer in charge without any extra charges.
31. contractor will keep ready two cylinder of nitrogen gas and regulator permanently in the HVAC plant room in order to cope up with any accidental /unexpected leakage or break down of vacuum in the chillers. Cylinders will be provided by the hospital. (Amendment)
32. Contractor will dose chemical in chilled and condenser Water line as per the recommendation of chemical supplier /manufacturer and water testing. Chemicals will be provided by the hospital. (Amendment)
33. Client will carry out testing / analysis of lithium bromide solution of chillers once in a year, if required. If the result is not within the prescribed parameters of manufacture then contractor will

carry out necessary calibration, adjustment in chiller as required and as directed by the engineer in charge. (Amendment)

a. However, inhibitor, any other chemical required will be provided by the hospital.

34. contractor will carry out repair / maintenance, cleaning, and periodic service of split AC units installed in the building. Material will be provided by the hospital. (Amendment)

35. The contractor shall ensure that in the absence of any staff member, a replacement/reliever must be provided immediately.

36. The contractor must provide accommodation for his staff near to hospital.

37. Site Engineer shall remain available at site during General Shift or whenever required. Site Engineer will take prior approval from the Hospital HVAC Engineer –in case of leave or short leave, with arrangement of a suitable substitute.

38. The Owner reserves the right to direct the contractor to terminate any staff member found misbehaving or involved in any unfair or anti-social activities within the Institute premises.

39. Working & maintaining preventive maintenance checklists approved by HVAC Engineer PIC-MTI.

40. Contractor will provide parts & consumable items of original brand for HVAC system of within the maintenance cost up Rs: 30,000 in every month. (parts & consumable items will be free of Cost). (Deleted)

7. The Penalty clause includes:

Sr No.	Problem	Penalty
1	If the personnel working are not found in proper uniform and displaying their photo identity card.	Rs: 500/- per day per staff
2	If the personnel found indulging in smoking/drinking/sleeping during duty hours.	Rs: 500/- per day per staff
3	In case of negligence to maintain required HVAC parameters such as temperature, humidity, air changes etc. (without justified reason)	Rs: 2,000/- Per day (Amendment)
4	Maintenance complaint could not be attended within 01 Hr. of intimation/registration. (without justified reason)	Rs: 2,000/- per day (Amendment)
5	Maintenance complaint could not be resolved within 03 Hrs. of intimation/registration. (without justified reason)	Rs: 2,000/- per day (Amendment)
6	Improper/ uncivilized behavior	Warning/termination letter
7	Late coming & not present during duty hours	Rs: 500/- Per day & Warning/termination Letter (Amendment)
8	Negligence & careless during duty hours. (New Addition)	Rs: 500/- per day per staff
9	If HVAC Plant, AHU rooms, cooling towers and HVAC equipment's found dirty. (New Addition)	Rs: 1,000/- per day
10	If not working/maintaining preventive maintenance checklists as per schedule. (New Addition)	Rs: 500/- per day

8. INVITATION FOR BIDS

Hospital Director, **Peshawar Institution of Cardiology-MTI** invites sealed tenders on National Competitive Bidding for the procurement of Operation & Maintenance of HVAC system for Hospital, under rule 6(2)(a) ***“single stage Two envelope procedure”*** of KPPRA Rules 2014, from reputed firms registered with the Income / Sales tax, reflected on Active Taxpayer List of FBR.

The bidders are required to submit bid security @ **500,000/-** in the name of **Hospital Director PIC Peshawar**. An affidavit is mandatory, without indicating the figure in the technical bid that bid security is placed in the financial bid. Pre-bid meeting with the interested bidders will be held on **28-07-2021 at 10:00 am** at the address given below.

The tenders complete in all respect must reach the undersigned by **11:00 hrs. on 10-08-2021**, which will be opened at **11:30 hrs.** on the same day in **Material Management Department of PIC-MTI** in the presence of the procurement committee and the bidders / representatives who may choose to attend.

Competent Authority reserves the right to reject any or all the bids as per provisions contained in Rule 47 of KPPRA Rules 2014.

9. BID SECURITY

Bid security @ **500,000/-** in favor of **“Hospital Director PIC Hospital”** should be kept sealed in the financial proposal.

Bid security of the successful bidder will be released after submission of Performance Guarantee.

The bid security may be forfeited:

- i) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- ii) In the case of a successful Bidder, if the Bidder fails to sign the contract Or to furnish performance Guarantee.

10. BID VALIDITY:

- i) The bids should be valid for a period of **180** days.
- ii) In exceptional circumstances, PIC Hospital may solicit the Bidder’s consent to an extension of the period of validity reasons shall be recorded in writing. The request and the responses there to shall be made in writing. The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in the bidding document.

11. STATEMENT OF REQUIREMENT WITH SPECIFICATION

1	<ul style="list-style-type: none">➤ The service provider will be responsible for smooth Operations and Maintenance of the plant 24/7 coverage.➤ Maintaining the required Comfortable Conditions (Temperature & Humidity etc.) of the Building.➤ The staff should be well qualified, trained and preferably professional.➤ The Minimum Required Staff should be present in each shift (24/7) even on Gazette Holidays and Religious Occasions. <p>(DETAILED SCOPE OF WORK IS IN THE COMING PAGES)</p>
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12. TECHNICAL EVALUATION CRITERIA

The bids / proposals will be evaluated on the basis of advertisement, bid documents and the point system as specified below.

Total Marks = 100 (50+50)

Technical Marks = 50

Financial Marks = 50

S #	PARAMETERS	SUB-PARAMETERS	MARKS
1	Legal / Financial Requirements		
		PEC Registration (ME-01)	Mandatory
		NTN Registration Certificate	
		KNTN Registration Certificate	
		Sales & Professional Tax Certificate	
		Audit Report of last 2 years	
		Must have maintained at least 2 projects of similar nature in 2 different organizations. (performance certificate/work order should be attached)	
		Letter of Commitment	
2	TECHNICAL STAFF		16
	List of Skilled Staff members (Full Time) (Qualifications & Experience) Technical Staff Working with the Bidding Firm for ATLEAST 05 Years (Job Proof)	<u>PROJECT DEDICATED</u> 1. Engineer (Mechanical/Electrical) 2. Plant Supervisors (DAE Mechanical) 3. HVAC Technicians (DAE Mechanical) 4. Chiller Operators (DAE Mechanical) 5. Electricians (DAE Electrical) 6. BMS Technicians (DAE Electrical) 7. BMS Operators (DAE Electrical) (Degree should be attached)	4 2 2 2 2 2 2
3	RELEVANT EXPERIENCE		14
	Experience in O&M of Projects of Same Nature/Quantum i.e. (Minimum 1500RT or Above will be considered) (Provide W/O, Satisfactory Certificates etc.)	I. 2 Institutes ii. 4 Institutes iii. 6 Institutes (Performance certificate /work order should be attached)	5 10 14
4	Financial Capabilities		10

	Turnover in Millions Audit Report Should be attached	i. 1-15 million ii. 16-30 million iii. 31- 50 million	3 6 10
5	LOCAL/ REGIONAL OFFICE		05
	Firm's office	Availability of Office /Workshop in Peshawar.	05
6	TESTING & CALIBRATION TOOLS/EQUIPMENT		05
		<ul style="list-style-type: none"> List of the relevant tools to be provided on site for Operation & Maintenance Spare Parts readily available in Stock <p>(List should be attached on the Bidder Letter head)</p>	02 03
	Total Marks		50
	Qualifying Marks		35

13. FINANCIAL CRITERIA (50 MARKS)

S #	PARAMETERS	SUB-PARAMETERS	TOTAL: 50
	PRICE		50
		<p>Lowest total Price will get full marks.</p> <p>The formula to calculate the marks for the price submitted is:</p> <p>$\frac{[\text{Lowest Price (FM)} / \text{Price of Bid under consideration (F)}] \times 100 \times 0.50}{1}$</p>	50

TOTAL MARKS (TECHNICAL CRITERIA + FINANCIAL CRITERIA): 100

Financial bids of only technically responsive bidders will be opened publicly at the time to be announced by the Procuring Agency. The Financial Bids of technically disqualified bidders will be returned un-opened to the respective Bidders. After getting the financial score from the remaining 50 marks, the two scores will be combined to identify the best evaluated bid.

Financial Bid

S.NO	CATEGORY	COST (PKR Per Month)
1.	Per Month Charges	Rs-
Note: - <ul style="list-style-type: none">Costs Includes of all taxes.		

14. TECHNICAL STAFF REQUIRED:

DESIGNATION	MIN QUALIFICATION & RELEVANT EXPERIENCE	MIN REQUIRED	REMARKS
HVAC Plant In-charge	BE/B.Sc.(Mechanical Engineering) with at least 5 Years' experience in operation & maintenance of HVAC Centralized system.	01	
HVAC Supervisor	DAE Mechanical/ Electrical/ Electronic with 05 year experience in Operation & maintenance of HVAC System	02	
Chiller Operator	Diploma/certificate in Mechanical and 03 year experience in operation & maintenance of Chillers.	04	
HVAC Technician	DAE Mechanical or equivalent with 3 years of experience in maintenance of HVAC system.	04	
Electrician	DAE Electrical with 03 year experience in Maintenance of HVAC system.	02	
BMS Technician/operator	DAE Mechanical/ Electrical/ Electronic with 3 Year experience in BMS/Controls Operation & Trouble Shooting	02	
HVAC Helpers	Matric with 01 year experience in maintenance of HVAC system.	06	
Split AC technician	Diploma/certificate with 3 Year experience in relevant field.	02	

15. SCOPE OF WORKS (LEAST REQUIRED): ROUTINE MAINTENANCE

- The below checklist will be updated as per the requirement of HVAC system. Contractor will work on the updated & approved checklist form the HVAC Engineer PIC-MTI

JOB	DAILY	WEEKLY	MONTHLY	QUARTERLY	YEARLY
Inspection and diagnosis of fault(if Any) code in the chillers (Shift Wise)	✓				
Checking / adjustment of pressure drop across the system (Shift Wise)	✓				
Logging of operating data / parameters of Main Equipment (CTs, CHLRs, Pumps etc.) (Shift Wise)	✓				
Checking All the system Equipment	✓				
Checking of motorized, flow switches and control System		✓			
Checking of transducers, sensors and other controls of chillers and equipment.		✓			
Checking of electrical Accessories		✓			✓
Checking electrical wiring of chillers / components for any sign of overheating			✓		
Cleaning of electrical panel / control cards of chillers			✓		
Visual inspections of machine for any damage / loosening			✓		
Checking/testing/servicing of refrigerant leakage in the system and adjustment of charge if required. Material will be provided by the hospital	✓				
Inspection & Adding of chemicals for treatment of water and pipe line as per requirements			✓		
Checking / adjustment of temperature and pressure of chillers. (as per temperature of summer and winter season)			✓		
Checking of chilled water leaving and entering Temperature & Pressure (Recording of Data Hourly)				✓	

Checking of chilled water bypass circuit	✓				
BUILDING MANAGEMENT SYSTEM CHECKING		✓			
Checking and Cleaning of Air Filters		✓			
Detailed Inspection of AHU, s. Water & Air Circuit. Cooling tower, pumps etc.		✓			

YEARLY/SEASONAL PREVENTIVE MAINTENANCE

The contractor shall plan shutdown of HVAC system before the start of each (summer/ winter) season for undertaking complete preventive maintenance of HVAC system. with prior approval of HVAC Engineer PIC-MTI for the shutdown

Following maintenance will be carried out under the supervision of authorized service Engineer/Supervisor of contractor & PIC HVAC team.

The seasonal preventive maintenance mentioned in the scope of work.

A. WATER CIRCUIT (Material Will be provided by the Hospital) (Ammendment)

- I. Checking & Cleaning of pump strainer.
- II. Inspection of faulty pump/ motor bearings.
- III. Inspection of coupling rubber.
- IV. Checking of motor winding insulation.
- V. Checking of earthling.
- VI. Checking & tightening of wire connections.
- VII. Painting/anti rusting of pump supports.
- VIII. Cleaning/maintenance of air separators.

B. PIPING SYSTEM (Material Will be provided by the Hospital) (Ammendment)

C.

- I. De-scaling, Cleaning, flushing of chilled water pipe & condenser water pipe. Materials will be provided by the hospital
- II. Painting & servicing of all valves, strainers etc. paint will be provided by the hospital.
- III. Checking/repair of insulation, jacketing & covering of all insulated piping. Material will be provided by the hospital.

D. Complete servicing of Chillers, cooling towers, pumps etc. checklist will be provided by HVAC Engineer PIC-MTI.

E. AIR HANDLING UNITS (AHUS)/FCUs (Material Will be provided by the Hospital) (Ammendment)

- i. Flushing & cleaning of finned surface & water tubes of cooling coils.
- ii. Checking & replacement of faulty fan bearing.
- iii. Checking/replacement of faulty motor bearing.
- iv. Calibration of the Gauges(P/T).

- v. Checking of belt alignment and tension & mounting bolts.

Material will be provided by the hospital.

F. ELECTRICAL PANELS AND WIRING

- i. Checking & servicing of contactors, overloads, MCCBs, fuses, tightening of wiring connections, replacement of faulty parts if required.
- ii. Checking of wiring insulations.
- iii. Checking of earthing.

Complete servicing of Chillers, cooling towers, pumps, AHU's, FCU's, MAUH's, Split AC's & Exhaust fans etc. checklist will be provided by HVAC Engineer PIC-MTI.

Material will be provided by the hospital.

16. CONTRACTOR'S RESPONSIBILITIES:

- i. After physical checkup of the HVAC system, recommend the details of critical spares, minimum inventory level which are required to be kept in stock for routine maintenance and servicing of HVAC system.
- ii. Maintaining the plant related Equipment and Surroundings Clean and presentable.
- iii. Specify 02 months before the start of season, the Spare parts/consumables etc. along with their quantity and specification which are required for annual preventive maintenance.
- iv. Will responsible for efficient operation and maintenance of above HVAC system. will submit the details of staff to be deputed, as per qualification and experience mentioned. And should depute reliever in case of absence of any. Or otherwise penalty will be imposed.
- v. Provide the names and CNIC No, Detailed Document and other details of their staff with shift Wise Details. Staff will not be changed from site; in case they will take prior approval.
- vi. Ensure economical consumption of materials and spares supplied. All efforts should be made to repair old parts for its re-use. New part should only be substituted when the old part cannot be satisfactorily repaired & re-used.
- vii. Arrange tools and instruments for its technicians who are required for operation, maintenance, servicing, overhauling and minor repair of above equipment.
- viii. Maintain log book of chiller, pumps Suction/Discharge Pressure/Temp, AHUs, Electrical Panels, Conditioned Spaces etc. in each shift as per PIC-MTI approved format, submit it to HVAC

Engineer PIC-MTI on daily basis and take confirmatory signatures of the concerned representative.

- ix. Record and monitor the temperature and humidity of all the rooms and Wards in each shift.
- x. Submit weekly report, regarding the overall performance of above equipment and pin point any action to be taken.
- xi. In case of parts replacement Contractor shall handover defective part to HVAC Engineer PIC-MTI. And shall maintain a Register to record new parts taken and defective parts handed.

xii. Arrange chemical dosing of chilled water and testing of chilled water Nitrite, Iron Level, TDS and PH if required, from PCSIR. Cost of such tests shall be reimbursed to the contractor on production of cash memo. Deleted

- xiii. Random Air Balancing of Building Rooms if required will be done by the Contractor annually subject to prior approval.

xiv. Minor repair works e.g. rewinding of pump/AHU motor, repair of chilled water piping /duct leakages etc. will be done by the Contractor. Material will be provided by the hospital. Amendment

- xv. The resolution time for diagnosis and rectification of breakdown/emergent fault shall be 24-48 hrs. depending on the nature of fault and supply of spare parts by PIC-MTI.
- xvi. Be responsible for operation of chillers, cooling towers, AHUs, MAHU's, FCU's, Split AC units, Chilled water pumps, BMS System, devices, Fresh/Exhaust Air Fans. contractor will be also responsible for manual operation of above equipment in case of defect.
- xvii. The contractor must provide accommodation for his employees near to hospital.

17. PIC-MTI RESPONSIBILITIES:

- i. Arrangement the required consumables/spare parts which are required for operation, maintenance, servicing, minor repair and overhauling as per recommendations of contractor with proper justification.
- ii. Providing electricity and water supply/ chemical/oil/fuel.
- iii. Providing water treatment chemicals as and when Required.
- iv. Testing of all types of chemicals (New Addition)
- v. Provision of suitable working space to contractor's staff for carrying out repairs

18. BLACKLISTMENT OF DEFAULTED BIDDER/CONTRACTOR

Conditions for Blacklisting of Defaulted Bidder/Contractor under rule 44 of KPPRA Rules 2014

The following are the events which would lead to initiate (Rule 44 of KPPRA Rules 2014) blacklisting/debarment process;

- a. Consistent failure to provide satisfactory performances.
- b. Found involved in corrupt/fraudulent practices.
- c. Abandoned the place of work permanently.

Procedure for blacklisting and debarment

1. Competent authority of Peshawar Institute of Cardiology may on information, or on its own motion, issue show cause notice to the bidder.
2. The showcase notice shall contain the statement of allegation against the Bidder.
3. The bidder will be given maximum of seven days to submit the written reply of the show cause notice.
4. In case the bidder fails to submit written reply within the requisite time, the competent authority may proceed forth with ex-parte against the bidder.
5. Direct to issue notice of personal hearing to the bidder/ authorized representative of the bidder and the competent authority shall decide the matter on the basis of available record and personal hearing, if availed.
6. The competent authority shall decide the matter within thirty days from the initiation of proceedings.
7. The order of competent authority shall be communicated to the bidder by indicating reasons.
8. The order past as above shall be duly conveyed to the PKPRA and defaulting bidder within three days of passing order.

19. AWARD OF CONTRACT:

Contracts shall be confirmed through a written agreement signed by the successful bidder and building & facilities manager PIC Peshawar.

20. PAYMENT:

- a. No advance payment will be permissible.
- b. The payment will be made on performances basis and by the recommendation of building & facilities manager & HVAC Engineer PIC-MTI.

21. DETAILS OF THE EQUIPMENT'S INSTALLED at PIC-MTI (New Addition)

Description	Unit	QUANTITY									
		Basement	Ground	1st	2nd	3rd	4th	5th	Roof Top	Plant Room	Total Qty
Absorption Chillers	No's									3	3
Condensing Outdoor Units	No's								2		2
Cooling Towers	No's								3		3
Chilled Water Primary Pumps	No's									3	3
Chilled Water Secondly Pumps	No's									6	6
Condenser Water Pumps	No's									3	3
Expansion tank	No's									1	1
Air Separator	No's									1	1
Chemical Feeder	No's									1	1
Dosing Pumps	No's									2	2
MCC's	No's									2	2
ACPs	No's									25	25
AHU's	No's	1	5	6	5	4	4				25
MAHU's	No's	7	5	4	1	6					23
FCU's	No's	17	3	12	63	45	31				171
Split Unit	No's										30
Exhaust Fans	No's	3	10	11	9	11	5				49