

UT Health Sciences Center

Request for Proposals

HVAC Chiller Maintenance and Repair

The University of Tennessee Health Science Center (UTHSC) is seeking proposals for HVAC Chiller maintenance and repair services. The scope of services shall be to provide a full coverage planned maintenance program of UTHSC HVAC Chiller equipment in accordance with equipment manufacture's recommendations and industry standards. All labor and materials for the planned maintenance and repair are to be inclusive of this agreement, including after hours, weekends and holidays, and a loss protection of up to 100% of the refrigerant charge for the covered equipment.

DEFINITION

- CUSTOMER is the University of Tennessee Health Science Center or UTHSC
- Service Provider is the successful respondent of this Request for Proposal
- CONNECTED SERVICES are the services and related equipment that allow Service Provider to access, monitor, and trend data remotely, and which may be available for certain types of Covered Equipment.
- CONTRACT PRICE means the price that the University of Tennessee shall pay for the Services.
- COVERED EQUIPMENT means the equipment for which Services are to be provided under this Agreement. Covered Equipment is set forth in Schedule A - Equipment List.
- EQUIPMENT FAILURE means the failure, under normal and expected working conditions, of moving parts or electric or electronic components of the Covered Equipment that are necessary for its operation.
- SCHEDULED SERVICE VISITS are the on-site labor visits required to perform inspections and preventive maintenance on Covered Equipment.
- SCHEDULED SERVICE MATERIALS are the materials required to perform Scheduled Service Visits on Covered Equipment, unless excluded from the Agreement.
- PREMISES mean those University of Tennessee premises where the Covered Equipment is located.
- REPAIR LABOR is the labor necessary to restore Covered Equipment to working condition following an Equipment Failure, but does not include services relating to total equipment replacement due to obsolescence or unavailability of parts.
- CENTRAL STATION MONITORING means remote monitoring of Covered Equipment and/or systems including building automation, HVAC equipment, and fire alarm, intrusion, and/or other life safety systems for alarm and event notifications.
- REMOTE OPERATING SERVICES means remote interrogation, modification and/or operation of building automation, HVAC equipment, and/or other Covered Equipment.
- REPAIR MATERIALS are the parts and materials necessary to restore Covered Equipment to working condition following an Equipment Failure, but excludes total equipment replacement due to obsolescence or unavailability of parts, unless excluded from the Agreement.
- SERVICES are the work, materials, labor, service visits, and repairs to be provided by Service Provider pursuant to this Agreement.

Service Provider Qualifications

- A. Service Provider shall have the following minimum staff of service technicians employed by the local office:
 - a. Bidder shall have Technicians with at least seven years of experience performing preventative maintenance and repairs on same or similar equipment. Chiller Technicians shall have received certification from one or more of the manufactures of the covered equipment.
 - b. Bidder shall have General Technicians with at least seven years of experience performing preventative maintenance and repairs on same or similar equipment.
 - c. Bidder shall have Controls Technicians with at least seven years of experience and the capability to diagnose BAS/ATC issues related to chillers and associated equipment.
- B. Service Provider shall have 10 years' successful experience in fully maintaining and repairing the full schedule of equipment or similar equipment as listed on schedule A.
- C. Service Provider shall provide the minimum of five (5) references of service agreements that are of similar in size and scope to this agreement. The referenced agreements must be in the previous three years, and provide contact information.
- D. Service Provider shall provide evidence of minimal insurance coverage as listed in Paragraph titled "Insurance Requirements".
- E. Service Provider must provide have a Lost Time Incident Rate (LTIR) and Total Recordable Incident Rate (TRIR) of less than 2.0 annually for 2 consecutive years.
- F. Service Provider shall provide evidence of a Personal Protective Equipment (PPE) Policy that addresses minimum PPE (hard hat, cut resistant gloves, safety glasses, work boots with leather uppers and rubber soles) and task-specific PPE requirements.
- G. Service Provider shall provide evidence of an Electrical Safety Policy that addresses the specific PPE and arc/flash protection required when performing work on live electrical equipment (meets NFPA 70E).
- H. Service Provider shall provide evidence of a daily pre-job hazard assessment process.
- I. Service Provider shall provide evidence of a job site safety audit process that will be used by management to validate safety program execution.
- J. Service Provider shall provide evidence of a formal mandatory monthly safety training program for all employees who perform service work.
- K. Service Provider must be:
 - a. Currently Licensed Contractor in the State of Tennessee
 - b. Currently Licensed HVAC Service Provider in the State of Tennessee
 - c. Located within a 30-mile radius of the City of Memphis, Tennessee
- L. Service Provider's technicians shall be located within 25 miles of the site where the equipment to be serviced is located.
- M. Service Provider's technicians shall be equipped with mobile devices with ability to capture customer signature and email service reports to customer.
- N. Service Provider shall collect data and perform the required predictive diagnostics of covered equipment, including Vibration Analysis.
- O. The Service Provider shall have at least two methods for receiving service requests; at least one method must provide a way for the provider's 24/7 operators to dispatch employees for afterhours service.
- P. Service Provider shall have a system to schedule, dispatch, and manage scheduled service and unscheduled requests.
 - a. Access to the system shall be secured through a controlled user ID and password.

- b. The system shall have the capability to allow the Facilities Maintenance Staff to have 24/7 access to service information for their account through an online Internet-based portal. This information shall include:
 - i. Account information, including each associated account, equipment, or building
 - ii. Asset information, specific records and service work for each asset
 - iii. Agreement information, including associated service requests, activities, and invoices
 - iv. Service requests, including activities and services performed, as well as the location and time where and when the service was performed.
 - v. Service reports which detail the services provided for a specific request.
 - vi. Invoices, including the activities and other details for individual service requests included on the invoice
 - vii. Service activities, including specific sub-activities, steps, and signatures
 - viii. The system shall have the capability to generate a summary report of service delivery metrics for the service location. These metrics shall include:
 - 1. Percent on-time service delivery, completion of scheduled service requests, and completion of repair requests for a 3-month period
 - 2. A trend of the average time to complete repairs
 - 3. A list of open repair actions
 - 4. The ratio of planned to unplanned maintenance
 - 5. A summary of technician recommendations
 - 6. A condition assessment of covered assets at the site

Insurance Requirements

Service Providers will at their own expense provide and keep in full force and effect during the term of the Agreement/Contract the following insurance coverage's:

A. Workers Compensation and Employers Liability

Workers Compensation is to be statutory coverage as required by the laws of the jurisdiction in which the services are performed. Employers Liability shall be a limit not less than \$5,000,000 bodily injury by accident, each accident; \$5,000,000 bodily injury by disease, policy limit and \$5,000,000 bodily injury by disease, each employee. UTHSC is to be named as an alternate employer. In the event alternate employer status cannot be provided to UTHSC, a waiver of subrogation in favor of UTHSC is required as follows: *Neither Vendor /Supplier, nor its affiliates, nor any subcontractor hired by it, nor its insurer shall have any claim, right of action or right of subrogation against UTHSC, its affiliates or agents based on any occurrence insured against, in whole or in part, under the workers compensation insurance of the Vendor/Supplier or the workers compensation insurance of any subcontractor hired by Vendor/Supplier.*

B. Commercial Auto Liability

If a vehicle is used in the services provided to UTHSC, commercial auto liability insurance is required to be maintained and is to be in an amount not less than \$5,000,000 liability per accident covering all vehicles, owned, leased, hired or borrowed.

C. Commercial General Liability

Commercial general liability insurance shall be maintained in the following limits: \$5,000,000 per occurrence, \$5,000,000 damages to rented premises each occurrence; \$5,000,000 personal and advertising injury; \$5,000,000 products and completed operations; \$50,000 medical expense and \$5,000,000 Aggregate. Limits requested for Commercial General Liability may be met with the combination of general liability as primary coverage and Excess Umbrella Liability as excess thereto. Proof of Excess Umbrella Liability coverage will need to be provided. Where allowable by law, UTHSC is to be named as Additional Insured as our interests may appear in the services provided under this Contract/Agreement.

D. Professional Errors & Omissions

If applicable to the Agreement/Contract of professional services provided to UTHSC, then Professional Liability insurance is to be maintained covering the errors and omissions of the Supplier's employees with a \$10,000,000 per claim limit.

E. Property Insurance

All property belonging to Vendor/Supplier shall be insured by the Vendor/Supplier. UTHSC has no responsibility for property coverage of equipment belonging to Vendor/Supplier. It is recommended that Vendor/Supplier maintain all risk, replacement cost and in transit coverage for equipment of Vendor/Supplier used on premises of UTHSC to conduct services described within the Agreement/Contract.

F. Additional Requirements

Vendors/Suppliers retained to perform any work at UTHSC's facilities are required to present a current Certificate of Insurance that comply with the above requirements prior to undertaking of any work and shall maintain such coverages throughout the life of this Agreement/Contract. Such Certificate shall be provided at no additional cost to UTHSC. Such certificate shall be provided on an annual basis or at the request of UTHSC. Notice of cancellation or non-renewal of Vendor/Supplier's insurance coverage shall be provided to UTHSC in accordance with policy terms and conditions. Vendor/Supplier shall be in material breach of this Agreement/Contract if Vendor/Supplier breaches or fails to comply with any of its obligations under the above.

General Requirements

- A. All bidders are required to attend a walk through to view covered equipment and to review maintenance history of this equipment. Any bidder who does not attend this walk through will be automatically disqualified.
- B. The successful bidder shall be responsible for purchasing the Campus Contractor Parking permit from the UTHSC parking office.
- C. The bidder shall provide labor rate pricing for any work performed outside the scope of this agreement. This pricing shall include rate for Regular Time, Overtime, Holidays and Weekends
- D. The bidder shall provide a % material price markup for any work performed outside of the scope of this agreement.
- E. All damage that is the result of Service Provider's work will be repaired, including the painting and insulating of the equipment/piping.
- F. F: Between year 1 and 3, all water cooled chillers shall be eddy current tested and the reports given to UT.

Scope of Work

Coverage shall include:

- A. Labor & Materials for Preventive Maintenance on all covered equipment. (See Schedule A)
- B. Labor & Materials for Repairs on all covered equipment, including after hours and holidays.
- C. A service report following each service visit describing all services and materials provided for the covered equipment.

Annual Preventive Maintenance and Inspection Services – Service Provider shall provide preventive maintenance and inspection labor, associated materials (including refrigerant, oil, grease, refrigerant oil and refrigerant filters, oil and refrigerant test kits, and belts) and travel, labor and expense, including living expenses (if necessary), required to:

- A. Preventative Maintenance and repair services shall be performed during normal business hours, (Monday to Friday, 7am to 3:30 pm). Any PM or Repair work requiring a complete shutdown of the chiller(s) shall be coordinated with the on-site Facilities Management Staff in order to minimize disruption to university. Any PM work coordinated at the customer's discretion outside of normal working hours, on weekends or holidays, shall be billable to the customer at only the cost differential of normal working hours.
- B. Conduct one (1) comprehensive annual preventive maintenance inspection as per the attached requirements.
- C. Conduct three (3) operational preventive maintenance inspections as per the attached requirements.
- D. Identify defects, failed or doubtful components, water or oil leaks, refrigerant leaks, excessive vibration, noisy or improper operation.
- E. Inform the Facilities Maintenance Staff of preventive maintenance progress, inspection findings and applicable maintenance and repair options
- F. Recommend applicable retrofit options and equipment replacement alternatives.
- G. Service Provider shall provide the Facilities Maintenance Staff with written reports of its progress and the results of this preventive maintenance program. Reports may be delivered electronically.
- H. Oil Analysis shall be performed two (2) times per contract year for each covered equipment
- I. Refrigerant Analysis will be performed once per year for each covered equipment or hermetic motor failure or performance issues indicator
- J: Condenser Tube Cleaning shall be performed one (1) time per contract year.
- K: During the first inspection, a leak test shall be performed to identify any possible leak(s) for each covered Equipment. Should it be determined that there is a leak, Service Provider will propose the cost of repair for that

leak. Should the leak test not reveal a leak any subsequent leaks shall be repaired by the Service Provider under this agreement.

L: The Service Provider shall utilize original equipment manufacturers recommended maintenance techniques for required tasking, testing, frequencies, etc. unless other requirements as may be dictated herein requiring more stringent maintenance or testing. Where the system or equipment is old or does not have manufacturers recommended maintenance requirements, the Service Provider shall provide this service in accordance with the best commercial practice governing the maintenance of the system or covered equipment.

- J. The Service Provider shall provide a detailed maintenance plan including tasking and frequency for all equipment based upon each equipment manufacturer, type, size or other unique requirements. Equipment of similar manufacturer, types and sizes may be grouped.
- K. The Service Provider shall provide any and all reports of the maintenance, repairs, and testing that may be necessary for demonstration to regulatory bodies that work has been performed to all required specifications.

Unplanned Repairs- The Service Provider shall furnish labor, tools, equipment, transportation and supervision necessary to provide repairs for all covered equipment and systems under this agreement 24 hour a day, 7 days a week, unless expressly excluded in this agreement:

- A. Emergency Repair Response: Service Provider shall provide 24/7 "Hotline" for emergency repair requests that is available and monitored 24 hours a day, 7 days a week. Service Provider shall respond to emergency repair service calls with a two (2) hour verbal response and a four (4) hour on-site response by Service Provider's trained technician.
- B. Any worn or failed components and parts shall be provided and replaced by Service Provider and all replacement parts shall be of like or current design to minimize system depreciation and obsolescence.
- C. Please see attachment for labor and material rates.

Initial Equipment Inspection

The Service Provider shall inspect the Covered Equipment within forty-five (45) days of the date that this Agreement begins, or as seasonal or operational conditions permit. Service Provider will then advise UTHSC of any Covered Equipment not in working order or in need of repair. Service provider shall provide a cost proposal for recommended repair work. With UTHSC's written approval, Service Provider will perform the work necessary to put the Covered Equipment in proper working condition, subject to the terms of this Agreement. UTHSC may pay for such work at Service Provider standard rates for parts and labor in effect at the time that the work is performed.

Preventative Maintenance Requirements

The Service Provider shall furnish labor, tools, equipment, transportation and supervision necessary to provide at a minimum the preventive maintenance as follows.

Water Cooled Chiller

Operational (3 annually)

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Review control panel for proper operation and recorded fault histories
- D. Check for proper condenser and chilled water flow
- E. Check system pressures and temperatures
- F. Check refrigerant levels
- G. Check intercooler level
- H. Check and record oil level(s)
- I. Check capacity control and linkage
- J. Check for proper oil temperature and pressure
- K. Lubricate motor bearings (per manufacturer's recommendations)
- L. Visually inspect for refrigerant and oil leaks
- M. Check for unusual noise and vibration
- N. Check overall condition of unit
- O. Check for proper operation of oil return system
- P. Record and log all operating parameters
- Q. Review control panel for proper VSD operation and recorded fault histories
- R. Check overall condition of unit

Comprehensive (1 Annually)

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Review control panel for proper operation and recorded fault histories
- D. Conduct refrigerant leak check
- E. Check compressor oil level(s)
- F. Change oil filters (isolation valves must be present and functional)
- G. Change oil eductor filter dryer (isolation valves must be present and functional)
- H. Lubricate and check capacity control and linkage
- I. Verify oil heater operation
- J. Check and tighten electrical connections
- K. Perform preventative procedures to flow proving devices
- L. Check for unusual noise and vibration
- M. Check overall condition of unit
- N. Remove and dispose any debris from any maintenance activity
- O. Provide all Oil, Filters and Labor as required to perform Annual Oil Change, as required by OEM.
- P. Document tasks performed during visit and report any observations to appropriate customer representative
- Q. Review control panel for proper VSD operation and recorded fault histories
- R. Inspect filters, clean and/or replace as required

- S. Meg compressor motor
- T. Check and tighten electrical connections
- U. inspect and clean heat exchanger
- V. Check for Coolant leaks

Vibration Analysis

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Record equipment specific information for reference
- D. Install pads and labels (if applicable)
- E. Install sensors in proper location.
- F. Start equipment and run at normal operating conditions.
- G. Record readings and remove sensors.
- H. Submit readings for report generation and deliver to customer with recommendations.
- I. Document tasks performed during visit and report any observations to appropriate customer representative

Condenser Tube Brushing

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Isolate tubes
- D. Drain water from tubes
- E. Remove head
- F. Mechanically brush tubes
- G. Replace gasket as needed
- H. Reinstall head
- I. Remove and dispose any debris from any maintenance activity
- J. Document tasks performed during visit and report any observations to appropriate customer representative

Oil Sample and Analysis (Twice Annually)

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Remove sample in approved container
- D. Drop off for analysis
- E. Label and complete paperwork indicating present operating conditions
- F. Document tasks performed during visit and report any observations to appropriate customer representative

Refrigerant Sample and Analysis Annually

- A. All work must be performed in accordance with Customer safety policies, or Chiller OEM Safety Policy
- B. Check with appropriate customer representative for operational deficiencies
- C. Remove sample in approved container
- D. Drop off for analysis
- E. Label and complete paperwork indicating present operating conditions
- F. Document tasks performed during visit and report any observations to appropriate customer representative

Air Cooled Chiller

Operational (3 annually)

- A. Checking refrigerant and oil levels
- B. Start the chiller and calibrate controls
- C. Check oil sump, oil heaters and temperatures
- D. Check and test all operating and safety controls
- E. Check the starter operation
- F. Check purge unit operation if applicable
- G. Log operating conditions after system and unit stabilize
- H. Reviewing operating procedures and owner's log with customer operator
- I. check all adjunct and or ancillary equipment necessary for the proper operation of the chiller
- J. Repair insulation removed for inspection and maintenance procedures
- K. Clean equipment and surrounding area upon completion of work
- L. Report Deficiencies & Recommended Repairs

Comprehensive (1 Annually)

- A. Check with appropriate customer representative for operational deficiencies.
- B. Check compressor oil level(s).
- C. Change oil filter(s).
- D. Oil analysis.
- E. Inspect starter.
- F. Check oil heater.
- G. Meg ohm test compressor motor(s).
- H. Conduct refrigerant leak test.
- I. Check and tighten electrical connections.
- J. Check safeties.
- K. Check operating controls.
- L. Check contactor(s).
- M. Check condition of condenser coils.
- N. Clean condenser coils (Once per contract year)
- O. Check condenser fan blades and motors.
- P. Check for proper condenser fan rotation.
- Q. Check for unusual noise and vibration.
- R. Check overall condition of unit.
- S. Clean area around equipment.
- T. Complete any required maintenance checklists, report observations to appropriate customer representative.
- U. Annual vibration analysis. (if applicable)

Addendum

Service Provider's Services obligations include the repair or replacement of vessels, seals, tubes, gaskets, and piping that are inclusive to equipment listed in Schedule A.

Service Provider's Services obligations do not include failures beyond SERVICE PROVIDER's reasonable control, including (i) acts of God, (ii) abuse or misuse of equipment, (iii) work or repairs to equipment not performed or provided by SERVICE PROVIDER, (iv) site -related problems, including power failures or surges.

Agreement Pricing

		Year 1	Year 2	Year 3	Total
HVAC Chiller Repair & Maintenance	Chiller PM and scheduled maintenance				

Labor Rates

	Year 1	Year 2	Year 3	No. of Available Staff
Chiller Technician				
General Mechanical Technician				
Mechanical Apprentice				
Control s Technician				
Totals				

Please include regular, overtime and weekend, holiday labor rates.

Revised Schedule A

<u>Buildings Under Contract Name</u>	<u>Bldg #</u>	<u>Tonnage</u>	
Van Vleet Building			
Trane/CVHE050	2113-1	550	
869 Madison Parking Garage			
York/YK-TH-TB-J3-DCF	2121-1	1500	
York/YK-TH-TB-J3-DCF	2121-2	1500	
York/YK-TH-TB-J3-DCF	2121-3	1500	
Randolph SAC Building			
Trane/CVHF064	2165-1	640	
General Education Building			
Trane/CVHE126GAX	2175-4	1250	
Doctor's Office Building			
Carrier/38AH064	2181-1	60	
Carrier/38AH064	2181-2	60	
Carrier/38AH064	2181-3	60	
Carrier/38AC064	2181-4	60	
922 Madison Building			
Trane/CVHF770	2275-1	770	
Trane/CVHF770	2275-2	770	
930 Madison Building (Basement)			
Trane/CVHE080	2243-1	700	
930 Madison Building (Roof)			
McQuay/AGS270B27-ER10	2243-2	268	
Boling CDD Building			
Carrier/19RXV440	2267-1	375	
Carrier/19RXV440	2267-2	375	
Coleman Building			
Carrier/19RXV575	2116-1	500	
Carrier/19RXV575	2116-2	500	
RBL Building			
York/YCA-187EA46VACS	2608-1	185	
York/YCA-187EA46VACS	2608-2	185	
York/YCA-187EA46VACS	2608-3	185	
Pharmacy Building			
McQuay/C3612BNYY2-D	2198-1	600	
McQuay/C3612BNYY2-D	2198-2	600	
Cancer Research Building			
Trane/CVHE500	2125-1	500	
Trane/CVHE500	2125-2	500	
Translation Science Building			
York/YKECETQ7-CPGS	2200-1	500	
York/YKECETQ7-CPGS	2200-2	500	
* York/YVA-A0233BAV	2200-3	230.	Just added.