COUNTY COUNCIL of BERKELEY COUNTY, WEST VIRGINIA

Request for Proposal (RFP)
For
Chiller Plant & HVAC Upgrade

Located at:
400 W. Stephen Street, Martinsburg, WV

Bid Proposal due no later than 4:00 PM, Wednesday, April 10, 2019

March 2019
The County Council of Berkeley County, West Virginia (herein referred to as the “County Council” or “Council”) is requesting Qualification and Price Proposals from interested parties for Chiller plant replacement and HVAC upgrades located at 400 W. Stephen Street, Martinsburg, WV.

The County Council (or its designated representatives) will be evaluating submissions to this request and will ultimately select a firm judged to be both responsible and responsive to the request in every way, including having offered the most beneficial, appropriate price proposals. The County Council reserves the right to interview some or all prospective firms to discuss Qualifications & Price Proposals. The format for submittals, information regarding the scope of work, and selection criteria used by the County Council is available from the County Council Office, 400 W. Stephen Street, Suite 201, Martinsburg, WV 25410, or by telephone at 304-264-1923. Inquiries should be directed Gary A. Wine, Deputy County Administrator @ 304-267-5113.

A Mandatory Pre-Proposal Conference will be held at 1:00PM on Monday, March 25th in the Dunn Building, 400 W. Stephen Street, Room 205, Martinsburg, WV, 25401. Attendance at this conference is mandatory for those wishing to submit proposals.

Three (3) copies of submittals of Qualification & Price information from interested businesses should be enclosed in a sealed opaque envelope marked “Dunn HVAC upgrade”. Proposals must be submitted and time-stamped into the County Council Office, Room 201, 400 W. Stephen Street, Martinsburg, WV, 25401 no later than 4:00 PM on Wednesday; April 10, 2019. Failure to provide the required information as requested in the RFP for Berkeley County’s review may result in disqualification.

Proposals will be opened and entered into public record at 10:00 AM on Thursday, April 11, 2019 in the County Council Meeting Room, 400 W. Stephen Street, Room 205, Martinsburg, WV 25401.

Berkeley County shall make positive efforts to utilize Disadvantaged Business Enterprises for its supplies and services and shall allow these sources the maximum feasible opportunity to compete for contracts. Berkeley County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability for the provision of services.

Berkeley County reserves the right to accept or reject any or all proposals, to waive technicalities, and to take whatever action is in the best interest of the Berkeley County Council.
I. **INTRODUCTION:**

Proposals are being requested from Contractors to submit bids for Chiller Plant replacement and HVAC upgrades located at 400 W. Stephen Street, Martinsburg, WV as ordered by the County Council of Berkeley County, West Virginia, (hereinafter referred to as “County Council” or “Council”). Only written responses to this RFP shall be considered. All materials submitted shall become part of the proposal.

II. **BACKGROUND:**

Berkeley County is located in the eastern panhandle of West Virginia. According to 2017 Census information, Berkeley County has a population of 117,000 making it the second-most populous county in West Virginia, behind Kanawha. Martinsburg is the County Seat.

The county lies adjacent to the Washington-Baltimore Metropolitan area and is one of three counties in the Hagerstown-Martinsburg, MD-WV Metropolitan Statistical Area.

Partly because of its proximity to Washington, D.C., Berkeley County is the fastest growing county in the State of West Virginia and among the fastest growing in the entire country.

Berkeley County is currently governed by a five (5) member County Council.

III. **SCOPE OF WORK**

A **GENERAL**

The County Council is requesting bids for the replacement of the 300-ton air-cooled ArcticChill chiller serving the Dunn Building located at 400 W. Stephen Street, Martinsburg, WV. It is the intent of the Council to replace the existing system with a combination of air-cooled chiller and thermal (ice) storage tanks to meet the peak load of 300-tons. Furthermore, the three-way valves on ALL of the air handling and fan coil units shall be changed to two-way valves. The valve shall be integrated to the Trane Tracer® Ensemble™ BAS and the new chiller.

1. The sequence of operation must be submitted and approved by Berkeley County in advance of installation and programming.
2. The system shall be fully commissioned in accordance with industry standards and witnessed by Berkeley County representative(s). Commissioning reports shall be submitted to and approved by Berkeley County representative(s).
3. Vendor shall comply with all OSHA and Berkeley County safety standards. The jobsite shall be maintained in a clean and orderly fashion. Jobsite shall be properly secured at the close of each business day.
4. Vendor is responsible for all tools, equipment and material stored at the jobsite.
5. Successful vendor must provide OEM start-up of chillers and controls.
6. Successful vendor must work with the existing controls service provider to fully integrate the system (chiller, pumps, ice tanks, valves, controllers) in to the existing Trane Tracer® Ensemble™ BAS. This is to include but not limited to graphical setup and programming. **All setup, cabling and configuration are the responsibility of the vendor.**
7. Successful vendor must provide an onsite full-service maintenance contract 24x7x365. The contract term is for one (1) year with options to renew the following four (4) years. The contract scope shall include but not be limited to:
   a. Maintenance on chiller, tanks, and pumps in accordance with the manufacturer’s requirements
   b. Annual analysis of fluid concentration and add corrosion inhibitors as necessary.
8. Vendor is responsible for providing onsite temporary chiller capability that will be connected to the existing system during the project. The building will be occupied during the upgrade and acceptable office temperatures must be maintained. Historical data demands that chiller capabilities become necessary NLT (no later than) May 1st of each year.

**B. CHILLER PLANT**
1. Remove fence enclosure as needed to accommodate new equipment installation.
2. Secure electrical power at main disconnect with appropriate lockout procedures according to OSHA and local regulations. Disconnect existing electrical power and controls wiring from the existing chiller.
3. Recover refrigerant and oil from existing ArctiChill chiller and properly dispose or recycle per EPA guidelines and local regulations.
4. Secure and tag supply and return lines to the existing ArctiChill chiller. Remove existing chiller, chilled water piping, insulation and associated hardware. Dispose of all equipment and materials according to state and local code.
5. Submit layout of new air-cooled chiller, thermal storage tank farm and pump house to Berkeley County representative(s) for approval.
6. Provide and install new structural concrete pads and fence enclosure to match existing type and color. Provide all: excavation, removal of soil and spoils offsite, demolition and removal of existing concrete, site silt fencing and erosion protection in accordance with specifications from civil and structural engineer.
7. Provide and install new temperature wells and devices at chiller plant in accordance with industry standards.
8. Provide BACnet communications integration for the entire Chiller / Ice Storage Plant at the Trane Tracer Ensemble BAS. All points of control and monitoring will be available at the Trane Tracer Ensemble BAS.
9. Provide and install new chill water plant consisting of a combination of air-cooled chiller and thermal (ice) storage tanks to meet the peak load of 300-tons. (See specification) Provide and install integral pre-assembled variable flow pump package in weather tight enclosure (pump house). (See specification). Mechanical equipment shall be placed on
neoprene insolation pads of adequate quantity and thickness to support weight and reduce vibration.

10. Provide and install all ANSI Schedule 40 steel chilled water pipe for all new equipment according to manufacturer’s recommendations. Include vibration eliminators in accordance with industry guidelines. Provide necessary pipe labeling and valve tagging.

11. Provide and install exterior pipe insulation with weather-tight aluminum jacket in accordance with industry standards.

12. Charge system with glycol fluid. Verify and document proper concentration to meet freeze protection in accordance with manufacturer’s guidelines.

13. Provide and install all electrical power wiring for the entire Chiller/ Ice Storage Plant. Utilize existing power distribution switchgear and distribution panels as needed. Provide fuses, disconnects, enclosures and hardware as needed according to State and Local code requirements.

14. Provide all necessary; Civil Engineering, Structural Engineering, MEP Engineering according to State and Local code requirements. Construction plans will be submitted for review and approval by Berkeley County representative(s) prior to construction. Provide all necessary permits for all trades. Provide final plans in electronic copy and paper copy (3 sets). Provide O&M manuals for all new equipment and devices in electronic and paper copy (3 sets).

C. AIR-COOLED, ROTARY-SCREW WATER CHILLER SPECIFICATIONS

PART 1 - GENERAL

1.01 SUMMARY

a. Section includes design, performance criteria, refrigerants, controls, and installation requirements for air-cooled rotary screw packaged chillers.

1.02 REFERENCES

a. AHRI 550/590 - Standard for Water Chilling Packages using the Vapor Compression Cycle
b. AHRI 370 - Sound Rating of Large Outdoor Refrigerating and Air-Conditioning Equipment
c. ASHRAE 15 - Safety Code for Mechanical Refrigeration
d. ASHRAE 90.1 - Energy Efficient Design of New Buildings
e. ASME - Boiler and Pressure Vessel Code SEC VIII, Division 1
f. UL 1995 - Central Cooling Air Conditioners
g. ASTM B117 - Standard Method of Salt Spray (Fog) Testing
h. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
i. ASTM A525 - Zinc (Hot-Dip Galvanized) Coatings on Sheet Steel Products
j. ASTM D1654 - Evaluation of Painted or Coated Specimens, Subjected to Corrosive Environments
k. ANSI/AFBMA 9-1978 - Load Ratings and Fatigue Life for Ball Bearings.
l. ISO 9001

1.03 SUBMITTALS
a. Submit dimensional plan and elevation view drawings, weights and loadings, required clearances, location and size of all field connections, electrical requirements and wiring diagrams.
b. Submit product data indicating rated capacities, accessories and any special data.
c. Submit manufacturer's installation instructions.

1.04 REGULATORY REQUIREMENTS
a. Comply with according to state and local code and standards specified.
b. Chiller must be built in an ISO 9001 classified facility.

1.05 VERIFICATION OF CAPACITY AND EFFICIENCY
a. All proposals for chiller performance must include an AHRI approved selection method. Verification of date and version of computer program selection or catalog is available through AHRI.

1.06 DELIVERY, HANDLING AND STORAGE
a. Comply with manufacturer's installation instructions for rigging, unloading, and transporting chillers.
b. Chiller shall be capable of withstanding \(-40^\circ F \sim 40^\circ C\) to \(158^\circ F \sim 70^\circ C\) storage temperatures for an indefinite period of time.

1.07 WARRANTY
a. Provide a full parts warranty for one year from start-up or 18 months from shipment, whichever occurs first.
b. Provide an optional 10-year parts and labor warranty that includes compressor and fan failures.

PART 2 - PRODUCTS

2.01 CHILLER DESCRIPTION
a. The contractor shall furnish and install air-cooled water chiller with screw compressors as shown on the contract documents. The chillers shall be installed in accordance with this specification and perform at the specified conditions as scheduled.

2.02 CHILLER OPERATION
a. Chiller shall be capable of starting and running at outdoor ambient temperatures from \(32^\circ F \sim 0^\circ C\) to \(105^\circ F \sim 41^\circ C\).
b. Chiller shall be capable of operating with a leaving solution temperature range \(40^\circ F \sim 68^\circ F\) (4.4 to 20°C) without glycol.
c. Chiller shall be capable of starting up with \(95^\circ F \sim 35^\circ C\) entering fluid temperature to the evaporator. Maximum water temperature that can be circulated with the Chiller not operating is \(108^\circ F \sim 52^\circ C\)
d. Chiller shall provide evaporator freeze protection and low limit control to avoid low evaporator refrigerant temperature trip-outs during critical periods of chiller operation. Whenever this control is in effect, the controller shall indicate that the chiller is in adaptive mode. If the condition exists for more than 30 seconds, a limit warning alarm relay shall energize.
e. The Chiller shall be capable of starting/re-starting in 60 seconds after power loss and restore.
2.03 COMPRESSORS
   a. Construct chiller using semi-hermetic, variable speed drive, helical rotary screw compressors.
   b. Provide compressor motor that is suction gas cooled with robust construction and system design protection.
   c. Provide oil lubrication system with oil charging valve and oil filter to ensure adequate lubrication during starting, stopping, and normal operation.
   d. Provide compressor heater to evaporate refrigerant returning to compressor during shut down. Energize heater when compressor is not operating.
   e. Provide compressor with automatic capacity reduction equipment consisting of capacity control via variable speed drive and/or slide valve. Compressor must start unloaded for soft start on motors.
   f. Chiller shall be capable of operation down to 25% load without hot gas bypass.

2.04 EVAPORATOR
   a. The evaporator shall be designed, tested, and stamped in accordance with ASME code for a refrigerant side working pressure of 200 psig. Waterside working pressure shall be 150 psig.
   b. Insulate the evaporator with a minimum of 0.75 inch (K=0.28) UV rated insulation. If the insulation is field installed, the additional money to cover material and installation costs in the field should be included in the bid.
   c. Evaporator heaters shall be factory installed and shall protect chiller down to \(-20^\circ F (-29^\circ C)\). Contractor shall wire separate power to energize heat tape and protect evaporator while chiller is disconnected from the main power.
   d. Provide shell and tube type evaporator, seamless or welded steel construction with cast iron or fabricated steel heads, seamless internally and externally finned copper tubes, roller expanded into tube sheets.
   e. Provide ability to remove evaporator tubes from the heat exchanger.
   f. Evaporator shall have cleanable tubes.
   g. Provide water drain connection, vent and fittings. Factory installed leaving water temperature control and low temperature cutout sensors.
   h. Water connections shall be grooved pipe.
   i. Proof of flow shall be provided by the equipment manufacturer, mechanically installed and electrically wired, at the factory of origin.

2.05 FANS
   a. Low sound fans shall be balanced and direct driven.
   b. All condenser fan TEAO motors have permanently lubricated ball bearings and external overload protection.
   c. All condenser fans shall have integrated drives to provide variable speed for optimized efficiency and lower part load sound.

2.06 CONDENSER
   a. Construct condenser coils of aluminum fins mechanically bonded to internally finned long-life aluminum alloy tube. The condenser coils shall have an integral subcooling circuit and shall be designed for 350 psig or
higher working pressure. Leak tested at 1.1 times working pressure. OR
Condenser coils shall be made of a single material to avoid galvanic corrosion
due to dissimilar metals. The condenser coils shall have an integral sub-
cooling circuit and shall be designed for at least 350 psig working pressure.
Leak tested at 1.1 times working pressure.
b. Condenser coils shall be transverse design. If coils are not transverse design,
provide coil protection for shipping.

2.07 ENCLOSURES/CHILLER CONSTRUCTION
a. Unit panels, structural elements and control boxes are constructed of
galvanized steel and mounted on a bolted galvanized steel base. Unit panels,
control boxes and the structural base are finished with a baked on powder
paint.
b. Control panel doors shall have door stays.
c. Mount starters and Terminal Blocks in a UL 1995 rated weatherproof panel
provided with full opening access doors. If a circuit breaker is chosen, it
should be a lockable, through-the-door type with an operating handle and
clearly visible from outside of chiller indicating if power is on or off.
d. The coating or paint system shall withstand 500 hours in a salt-spray fog test
in accordance with ASTM B117.

2.08 CHILLER MOUNTED ADAPTIVE FREQUENCY DRIVE (AFD)
a. The water chiller shall be furnished with a fluid cooled Adaptive Frequency
Drive (AFD) as shown on the drawings.
b. The AFD efficiency shall be 97% or better at full speed and full load.
Fundamental displacement power factor shall be a minimum of 0.96 at all
loads for AFD. All other starters shall have a minimum displacement power
factor of 0.85.
c. Power semi-conductor and capacitor cooling shall be from a liquid or air
cooled heatsink.
d. Unit shall have a single point power connection.
e. Power line connection type shall be standard with a terminal block.
f. A control power transformer shall be factory-installed and factory-wired to
provide unit control power.
g. Unit wiring shall run in liquid-tight conduit.

2.09 REFRIGERANT CIRCUIT
a. Chiller shall have 2 refrigeration circuits, with 1 compressor on each circuit.
b. Provide for refrigerant circuit:
   1. Liquid line shutoff valve
   2. Suction service valve
   3. Discharge service valve
   4. Filter (replaceable core type)
   5. Liquid line sight glass.
   6. Electronic expansion valve sized for maximum operating pressure
   7. Charging valve
   8. Discharge and oil line check valves
   9. High side pressure relief valve
  10. Integrated oil loss sensor
Full operating charge of R134a and oil.

2.10 CONTROLS

a. A color, touch sensitive liquid crystal display (LCD) shall be unit mounted and a minimum of 7” diagonal. Graphical Icons provide links to sub menus on the sub-systems operations.

b. Display shall consist of a menu driven interface with easy touch screen navigation to organized sub-system reports for compressor, evaporator, and motor information as well as associated diagnostics.

c. The chiller control panel shall provide password protection of all setpoints

d. The controller shall have the ability to display all primary sub-system operational parameters on dedicated trending graphs. The operator must be able to create up to 6 additional custom trend graphs, choosing up to 10 unique parameters for each graph to trend log data parameters simultaneously over an adjustable period and frequency polling.

e. Chilled water temperature control shall be microprocessor-based, proportional and integral controller to show water and refrigerant temperature, refrigerant pressure, and diagnostics. This microprocessor-based controller is to be supplied with each chiller by the chiller manufacturer.

f. The front of the chiller control panel shall display the following in clear language, without the use of codes, look-up tables, or gauges:

1. Run time.
2. Number of starts.
3. Current chiller operating mode.
4. Chilled water set point and set point source.
5. Electrical current limit set point and set point source.
6. Entering and leaving evaporator water temperatures.
7. Saturated evaporator and condenser refrigerant temperatures.
8. Evaporator and condenser refrigerant pressure.
9. Oil tank pressure.
10. Oil pump sump pressure.
11. Intermediate oil pressure in the compressor.
12. Compressor motor current per phase.
13. Compressor motor percent RLA.
14. Compressor motor voltage per phase.
15. Phase reversal/unbalance/single phasing and over/under voltage protection.
16. Low chilled water temperature protection.
17. High and low refrigerant pressure protection.
18. Load limit functions (both current based or pulldown rate based) to limit compressor loading on high return water temperature.
19. Condenser fan sequencing to automatically cycle fans in response to load, expansion valve pressure, condenser pressure, and differential pressure to optimize chiller efficiency.
20. Display diagnostics.
21. Oil pressure control based off of maintaining system differential pressure.
22. Compressors: Status (on/off), %RLA, anti-short cycle timer, and automatic compressor lead-lag.

23. Oil loss indication.

24. Weatherproof control panel shall be mounted on chiller, containing starters, power and control wiring, factory wired with terminal block power connection. Provide primary and secondary fused control power transformer.

25. The chiller controller shall utilize a microprocessor that will automatically take action to prevent chiller shutdown due to abnormal operating conditions associated with: evaporator refrigerant temperature, high condensing pressure and motor current overload.

26. Provide the following safety controls with indicating lights or diagnostic readouts.
   1. Low chilled water temperature protection.
   2. High refrigerant pressure.
   3. Low oil flow protection.
   4. Loss of Oil diagnostic
   5. Loss of chilled water flow.
   6. Contact for remote emergency shutdown.
   7. Motor current overload.
   8. Phase reversal/unbalance/single phasing.
   10. Failure of water temperature sensor used by controller.
   11. Compressor status (on or off).

27. Provide the following operating controls:
   1. A variable method to control capacity in order to maintain leaving chilled water temperature based on PI algorithms. Five-minute solid state anti-recycle timer to prevent compressor from short cycling. Compressor minimum stop-to-start time limit shall be 2 minutes. If a greater than five-minute start-to-start.
   2. Chilled water pump output relay that closes when the chiller is given a signal to start.
   3. Load limit functions to limit compressor loading on high return water temperature to prevent nuisance trip outs.
   4. High condenser pressure limit controls that unload compressors to keep head pressure under control and help prevent high pressure nuisance trip outs on days when outside ambient is above design.
   5. Compressor current limit controls that unload compressors to help prevent current overload nuisance trip outs.
   6. Low ambient lockout control with user adjustable setpoint.
   7. Condenser fan sequencing which adjusts the speed of all fans automatically in response to ambient, condensing pressure and expansion valve pressure differential thereby optimizing chiller efficiency.

28. Provide user interface on the front of the panel. If display is on the inside of the panel, then a control display access door shall be provided to allow access
to the display without removal of panels. Provide user interface with a minimum of the following features:

1. Leaving chilled water setpoint adjustment from LCD input
2. Entering and leaving chilled water temperature output
3. Percent RLA output for each compressor
4. Pressure output of condenser
5. Pressure output of evaporator
6. Ambient temperature output
7. Voltage output
8. Current limit setpoint adjustment from LCD input.

l. The chiller control panel shall provide leaving chilled water temperature reset based upon return water temperature.
m. Provide factory installed contact closure input for initiation of ice building. Ice building termination shall be based on an adjustable entering water temperature setpoint. All compressors shall run at full load during ice building.

2.11 SOUND

a. Acoustics: Manufacturer must provide both sound power and sound pressure data in decibels, per AHRI 370. A-weighted sound pressure at 30 feet should be provided at 100%, 75%, 50% and 25% load points to identify the full operational noise envelope.
b. If manufacturer cannot meet the noise levels, sound attenuation devices and/or barrier walls must be installed to meet this performance level.
c. Chiller shall ship with a muffler on each rotary screw compressor and very low noise condenser fans to meet the scheduled sound levels. If chiller does not meet sound levels, chiller manufacturer shall provide additional attenuation features.

2.12 OPTIONS AND ACCESSORIES

a. Chiller shall have full architectural louvers panels.

PART 3 - EXECUTION

3.01 INSTALLATION

a. Install in accordance with manufacturer's requirements.
   1. Level the chiller using the base rail as a reference. The chiller must be level within 1/2" in over the entire length and width. Use shims as necessary to level the chiller.

3.02 SERVICE AND START-UP

a. Startup - Provide all labor and materials to perform startup. Startup shall be performed by a factory-trained technician from the original equipment manufacturer (OEM). Technician shall confirm that equipment has been correctly installed and passes specification checklist prior to equipment becoming operational and covered under OEM warranty. This shall be done in strict accordance with manufacturer's specifications and requirements. **Third-party service agencies are not permitted.**
b. A start-up log shall be furnished by the factory approved start-up technician to document the chiller's start-up date and shall be signed by the owner or his authorized representative prior to commissioning the chillers.

c. The service provider shall employ a minimum of 5 full time, certified HVAC and automation system servicepersons on staff, whose office in which they operate from is within (60) miles of the job site and who have been within their employment for a minimum of 10 years.

d. Service agreement.
   1. During the first 12 months of operation, a factory-trained technician from the original equipment manufacturer (OEM) shall perform quarterly on-site operating inspections to confirm the chiller's operational performance. The manufacturer shall provide the owner with a report describing the condition of the equipment, current operating log, any issues found needing to be addressed, and recommended corrective actions.

D. PACKAGE PUMPING SYSTEM SPECIFICATIONS

Provide package hydronic system complete with:

1. integral pumps
2. variable frequency drives on each pump motor
3. air separator
4. expansion tank
5. load tank
6. electronic valves
7. variable primary operation controls
8. glycol feed system
9. aluminum jacketed insulation
10. chemical feeder
11. flow meter
12. by-pass line
13. electronic by-pass valve
14. all enclosed in a 2” solid insulated structure with lockable door, floor drain exhaust fan, space heater, marine light and non-fused disconnect.

E. ICE THERMAL STORAGE SPECIFICATIONS – Ice on Coil Internal Melt only

1. GENERAL
   a. A complete Ice Thermal Energy Storage (TES) tank(s) shall be supplied from one single source with complete ice tank performance responsibility. The Ice Thermal Energy Storage Tank shall be factory assembled complete & modular in design so that its capacity can be increased in minimum increments as small as 82 usable latent ton-hours and maximum increments of no more than 500 latent ton-hours with no one tank being more than 25 percent of the usable stored capacity.
   b. All ice tank storage vessels shall be of one module size to facilitate balancing and
shall be filled with water as a freezing fluid, such that the ice tank heat exchanger is totally submerged. The ice tank modules shall be piped in parallel and a chilled solution (ethylene/propylene glycol) shall be circulated through the tubes. In the charging mode of operation, sub cooled ethylene glycol solution shall cause ice to form and build on the tube surfaces. In the load mode of operation, the melting ice from around the tube surfaces shall cool the glycol solution. Internal melt comes from the load mode of operation of the ice melting from the tube surface, inside the ice, out. CALMAC Manufacturing is basis of design.

2. ICE THERMAL ENERGY STORAGE SYSTEM PERFORMANCE
   a. Daily performance of the TES system shall be as scheduled on the plans. Each ICE tank shall have **FACTORY RATED AND PUBLISHED** charge and discharge performance curves that clearly indicate net usable ton-hours of storage at the system design temperatures shown in the plans and specifications. Net usable ton-hours shall be shown on these curves and shall be provided with the submittal package. Average charging ethylene glycol temperature (average over ice making hours) and final charging temperature must meet minimum scheduled performance as listed.
   b. Air Bubblers ice tanks are not to be used for this project.

3. ICE STORAGE VESSELS
   a. The modular ice storage tank design shall incorporate structure and storage fluid containment in a one-piece (sides and bottom) seamless tank designed for a minimum 25-year service life and shall be constructed solely of corrosion-resistant materials. Tanks with swimming pool like liners for containment are not acceptable.
   b. The ice tanks and tank covers shall be suitable for installation above or below ground with a maximum 12-inch deep covering, and shall produce a floor loading of no more than 391 pounds per square foot.
   c. The ice tank farm shall be modular and capable of being individually isolated so that each tank may be serviced without interrupting the operation of the total system for system reliability. The tanks shall have opposite or same end connections.
   d. The ice tank shall consist of a seamless one-piece design manufactured with high-density rotationally molded corrosion resistant polyethylene with an average thickness of 3/8 inch. Buried tanks shall be one-third thicker and installed in accordance with manufacturers recommended procedures. The tank shall include a factory assembled thermally isolated expansion chamber to help prevent expansion water from forming capacity reducing ice caps.
   e. The ice tank integrity shall be totally repairable without removing the internal ice tank heat exchanger. Indoor installations shall require no more than three feet of overhead clearance for heat exchanger repair.
   f. All thermal storage tanks must be designed and able to withstand, without damage or distortion, repeated cycles of total freezing of ALL water within it due to control malfunctions or ambient temperatures. Damages caused by a total freeze shall be covered under ice tank vessel warranty defined in this specification.
g. **All thermal storage vessels must be capable of being re-deployed for use at other sites with remaining specified original warranty in force. If redeployment is not possible without a redeployment kit, provide add price for one complete redeployment kit installed.**

4. **ICE TANK HEAT EXCHANGER**
   a. The ice tank shall contain a spiral-wound, mat type heat exchanger, constructed entirely of non-corroding materials. Provide polyethylene headers and polyethylene tubing no smaller than 5/8-inch O.D. arranged in multiple parallel circuits with **OPPOSITE** direction of flow in adjoining tubes for even ice making and melting. The ice tank heat exchanger tubing shall be oriented predominantly horizontal to prevent accumulation of sediment. “U” tube heat exchangers are not acceptable.
   b. Every connection in the heat exchanger and internal distribution piping shall be fusion welded. Tanks containing internal components that include mechanical fittings, rubber flex hoses, ABS, or PVC materials are not acceptable.
   c. The heat exchanger shall be capable of operating up to a 90 psi (620 kPa) maximum pressure and shall have a minimum burst pressure rated for 4 times the maximum operating pressure.
   d. **Each ice tank heat exchanger and its associated piping shall be factory hydrostatically-pressure tested to a minimum of 4 times maximum operating pressure after tank insertion, not prior.**
   e. To avoid capacity reducing ice caps, heat exchanger tubes shall be totally submerged in the freezing liquid, and shall be kept evenly spaced, horizontally and vertically by rigid plastic spacer strips.
   f. Heat transfer fluid temperature drops across the heat exchanger in the charging mode must be large enough to permit full fluid flow through the ice making chiller. Bypass of heat transfer fluid around the ice making chiller in the charging mode is not acceptable.
   g. Modular thermal storage tank farm shall be piped parallel in reverse return for self-balancing. At design conditions the ice tank flow shall not change greater than 3% by varying the pressure across the tank farm by one foot @ .043psi.
   h. The heat exchanger must be repairable without removal from tank.
   i. Pressure relief valves are not needed with this type of construction.

5. **ICE TANK COVERS**
   a. Covers shall be provided for all ice modules and/or tanks. Covers for buried vessels shall be designed to support architectural landscaping wood chips, or other similar material, having a maximum depth of twelve inches. Covers shall also support the weight of an average adult person (200 pounds) at any point on the tank farm.
   b. Covers shall be in modular sections that can be readily lifted, removed, and replaced by two men. Each section shall weigh no more than 250 pounds, and shall have smoothed edges or handles for easy and safe gripping.
   c. Each vessel shall have at least one inspection port in the cover, which can be used for visual inspection, determining liquid level, and for filling the vessel with water, without removing the cover(s). Each buried tank’s inspection port shall have a Schedule 80 PVC pipe extending to six inches above grade, with a gasketed and easily removable cap.
6. ICE TANK INSULATION
   a. The bottom, sides and cover(s) of each vessel shall be factory insulated. Insulation on the interior of the structural containment vessel is unacceptable.
   b. Manufacturer must provide adequate insulation to limit standby losses not to exceed **ONE PERCENT** of the total stored capacity when in an 85-degree F. environment for a period of twenty-four hours.
   c. The ice tank vessels, which freeze solid the bottom and the sides of the tank shall be insulated externally with a minimum of two inches of extruded polystyrene or polyurethane applied in overlapping layers having a minimum R-factor of nine (9). Insulation of sides shall be covered with a .032-inch thick aluminum jacket for protection and reflectance.
   d. The tops of all vessel types shall have a minimum of three inches of insulation applied to the interior cavity of the cover and have an R-factor of 24. Insulation with direct access or contact with the storage fluid or ambient air is not acceptable.

7. ICE THERMAL ENERGY STORAGE SYSTEM
   a. Hydrostatically flush clean and field pressure test all piping **EXTERNAL** to thermal storage tanks as specified elsewhere to remove welding slag, flux, and dirt. If hydrostatic test is with water the ice tanks must not be a part of this test and shall be valved off to eliminate filling the ice tanks with water, which cannot be easily replaced with the pre-mixed ethylene glycol. After successful completion of the test, drain the system and add premixed ethylene glycol to the system as described in another part of the specification. Upon completion of the filling and removal of air, pressure test the ice tanks in accordance with manufacturer’s recommendations.
   b. The system shall be filled with a pre-mixed heat transfer fluid solution resulting in proper freeze point for safe system operation. Typically, a solution of ethylene or propylene glycol is used. (25% minimum concentration for EG and 29% minimum for PG) The solution shall be thoroughly mixed by the chemical supplier. Field mixed glycol, automotive glycol, and field inhibited glycol is not acceptable. See heat transfer fluid specification. The piping system shall contain a 2-inch fill port on the suction side of the system glycol pumps.
   c. A lug type, full flow shut off valve shall be included for field installation and insulation in the supply and return lines of each tank.
   d. Liquid level and/or pressure switches in the expansion tank shall provide glycol system leak protection.
   e. Tank bottoms shall be level and supported over the entire area and insulated from their supporting surface with insulation supplied by the tank manufacturer.
   f. The thermal storage farm system can be provided with an optional ice inventory-measuring device, which will indicate the amount of ice available at any time within an accuracy of +/- 5 percent. This inventory-measuring device shall also be equipped with an electric transducer capable of producing a 4 - 20 ma. signal which can interface with the building automation system. This device is for indication only, NOT FOR CONTROL OF ICE SYSTEM.

8. TREATMENT OF PHASE CHANGE WATER
   a. The ice tank manufacturer shall supply its first treatment to eliminate bacterial growth.
   b. The treatment must eliminate algae and bacteria.
9. ICE TANK VESSEL WARRANTY
   a. Manufacturers of ice tanks shall provide a limited parts warranty for phase change
      fluid containment, and structure of tank for TEN-YEARS from date of shipment to
      jobsite.
   b. (Optional) Manufacturers of ice tanks shall provide a limited parts warranty for
      phase change fluid containment, and structure of tank for TEN-YEARS from date
      of shipment to jobsite.

10. ICE TANK HEAT EXCHANGER WARRANTY
    a. Manufacturer of ice tanks shall provide a limited parts warranty for all internal tank
       parts including the internal heat exchanger for FIVE-YEARS from date of shipment
       to job site.
    b. (Optional) Manufacturer of ice tanks shall provide a limited parts warranty for all
       internal tank parts including the internal heat exchanger for TEN-YEARS from date
       of shipment to job site.

F. DISTRIBUTION SYSTEM

1. Remove all heating and cooling three-way control valves for FCU-1 through FCU-41. Replace
   three-way control valves with two-way pressure independent control valves that include coil
   optimization technology and comply with specifications (See specification). Provide and install
   new pipe insulation to match existing.
2. Remove all heating and cooling three-way control valves at AHU-1, AHU-2, AHU-3A and AHU 3B.
   Replace three-way control valves with two-way pressure independent control valves that
   include coil optimization technology and comply with specifications (See specification). Provide
   and install new pipe insulation to match existing.
3. Install new Trane controllers, sensors and devices at FCUs and AHUs. Provide and install
   new control and low voltage wiring as needed to accomplish new sequences of operation.
   Integrate new pressure independent control valves using BACnet IP communications
   protocol. All points of control and monitoring shall be integrated into the Trane Tracer®
   Ensemble™ BAS. Provide and install new wall temperature sensors for all units.
4. Install new wireless wall temperature sensors for each FCU as needed to accomplish new
   sequence of operations.
5. Convert 42 FCUs & AHUs from constant volume to single zone Variable Air Volume.
6. Provide and install new BACnet IP communications wiring for all control valves. Provide
   and install new BACnet MSTP communications and low voltage power wiring at all FCUs,
   AHUs and Chiller plant as required. Install new Trane wired wall temperature sensors as
   directed. Provide and Install loose pipe temperature and pressure sensors as required.
7. Provide functional test and verification report for all FCUs, AHUs and Chiller plant. All
   two-way pressure independent vales with coil optimization technology will be set and will
   automatically function to provide proper flow and temperature rise across each cooling
   coil.
8. Provide functional test and balancing of FCU and AHU supply fans in accordance with
    NEBB Guidelines using NEBB Certified technician(s).

G. DISTRIBUTION SYSTEM EQUIPMENT GUIDELINES
Supply Pressure-Independent Ball Valves with Coil Optimization Technology NPS 6 (DN 150) and Smaller

1. Performance:
   1. Pressure Rating for NPS 2 (DN 50) and smaller: 360 psig (2482 kPa).
   2. Pressure Rating for NPS 2-1/2 (DN 65) through NPS 6 (DN 150): ANSI 125, Class B.
   3. Close-off pressure for NPS 2 (DN 50) and smaller: 200 psi (1378 kPa).
   4. Close-off pressure for NPS 2-1/2 (DN 65) through NPS 6 (DN 150): 100 psig (689 kPa).
   5. Process Temperature Range: Between 14 deg F to 212 deg F (minus 10 to plus 120 deg C).

2. Flow Meter and Temperature Sensors: A characterized control valve shall be integrated with an electronic (ultrasonic or electromagnetic) wet calibrated flow sensor (accuracy +/- 2%) providing analog flow feedback, and two temperature sensors providing feedback of coil inlet and outlet water temperatures. The valves shall reposition to maintain the required flow with a +/- 5% accuracy over a pressure differential range of 1 to 50 psig (7 to 345 kPa). Software shall control the valve to avoid the coil differential temperature from falling below a programmed set point.

3. Coil Optimization: Software shall control the valve to avoid the coil differential temperature from falling below a programmed setpoint. Real-time data and configuration of valve operating parameters shall be available by means of BTL listed BACnet MS/TP, BACnet/IP, MODBUS or HTTP. Monitored points shall include inlet and outlet coil water temperatures, absolute flow, absolute valve position, absolute coil power and total heating/cooling energy in BTU/hr. Configuration points shall include valve, flow and power settings. Historical trend data shall be stored for up to 13 months and be retrievable in a standard time-stamped format.

4. Owner provided internet connection for valve connection to cloud technology for cloud-based analytics providing coil and system optimization. Manufacturer shall provide quarterly performance reports, automatic or manual coil optimization setpoint determination, and software updates. A minimum connection time to the cloud for lifetime data access including Delta T and flow shall be required. **Warranty will be extended to 7 years with the first two years unconditional.**

5. Glycol Monitoring for NPS 2 (DN 50) and Smaller: The control valve assembly shall incorporate an algorithm to automatically calculate the glycol concentration and be readable by a local device or via BACnet.

7. End Connection NPS 2 (DN 50) and Smaller NPT female ends.
8. End Connection NPS 2-1/2 (DN 65) through NPS 6 (DN 150) pattern to mate with ANSI 125 flange.
10. Stem and Stem Extension: Stainless steel, blowout-proof design.
11. Ball Seats: Teflon PTFE.
12. Stem Seal: Dual EPDM O-rings (lubricated).
IV. GUIDELINES AND REQUIREMENTS

a. The Contractor shall be responsible for identifying all utilities that could impact the safe and timely completion of the work. Contacting the appropriate utility authority prior to commencement of work shall be the responsibility of the Contractor. If the utilities are not properly identified and the Contractor damages the utilities than the Contractor will be liable for repairs.

b. Contractor is to assure access to the building at all times during the regular work week. If special conditions arise contact Jack Laing, Facilities Director.

c. Contractor’s operations shall be conducted Monday through Saturday only from the hours of 7:00 AM until 7:00 PM. Work on holidays and Sundays must be pre-approved by Berkeley County.

d. Contractor shall provide all tools, equipment, materials and labor to complete this project.

e. Contractor will be responsible for any and all damages to adjacent properties associated with this project.

f. Work area will be cleaned at the completion of work. All waste is to be legally disposed of off of County property. Vehicles and equipment shall be removed immediately upon completion of work.

g. Berkeley County will obtain all applicable permits.

h. Contractor shall follow all applicable OSHA requirements for this project.

i. Contractor must contact Jack Laing at (304-267-3000) should there be any questions or problems during the implementation process.

j. Contractor will be responsible for barricading and posting the work area as necessary to protect the public.

k. Contractor will follow all provisions of Attachment “A” unless otherwise noted.

l. Berkeley County is a tax exempt organization. Tax number 55- 6000296.

m. This project is not subject to prevailing wages.
V. **O&E / TECHNICAL PROPOSAL:**

Respondent shall respond to and reference each section and subsection for portion(s) of RFP proposal. *At a minimum, your Qualifications Proposal shall include the following information. Failure to discuss each item may deem the submittal non-responsive and may result in non-consideration of respondent’s services.*

A. **Firm Information**

1. Name, address, telephone number, fax number of Contracting firm and parent company, if any, from which the project will be managed.

2. Nature of Contracting firm and parent company, if any.

B. **Firm Capabilities**

1. Describe the size of your firm/project office as related to size of staff.

C. **Firm Principals and Background**

1. Submit the names, titles, and resumes of the "principal" staff member(s) who will be responsible for the project during the performance of the contract. Please assure that the information provided includes specialized experience and technical competence in providing relevant services on similar sized projects during the past three (3) years.

2. Describe in depth the operations team available to the "principal" staff member(s). Include an organizational chart of manpower, titles, qualifications, roles in contract performance, and availability for telephone consultations and on-site meetings.

3. Provide a list of at least three (3) but no more than five (5) similar and/or relevant projects that you have completed during the past five (5) years. This information must include the business name, contact person, address, email address, and phone number.
D. **Miscellaneous Requirements:**

All proposals must provide written proof that:

- The selected Company/Contractor is licensed to conduct business in the State of West Virginia.

- West Virginia Code § 21-11-2 requires that all persons performing contractual work in West Virginia must be duly licensed. The West Virginia Contractors Licensing Board is empowered to issue the contractor’s license. West Virginia Code § 21-11-11 requires any prospective Bidder to include the contractor’s license number on their bid. The successful Bidder will be required to furnish a copy of their contractor’s license prior to issuance of the contract. The selected Bidder must also have a valid City of Martinsburg Business License and be licensed with the West Virginia State Fire Marshall’s Office.

- The selected Company/Contractor must certify that it is employing only US Citizens or those persons legally in the United States.

- The selected Company/Contractor must show proof of current workers compensation coverage or payroll information which will show that coverage is not required.

E. All technical proposals should include any conclusions, remarks and/or supplemental information that is pertinent to this request. Submitters are also required to provide written information regarding their inability to conform to any of the technical requirements listed above. Failure to do so will result in disqualification of proposal.

VI. **PRICE PROPOSAL:**

A. At a minimum, your Price Proposal shall include the following:

1. A lump-sum price quotation for all services listed-Attachment A

2. Fully executed Non-Collusion Certificate - Attachment B.

3. Proof of current business and contractor’s licenses.

4. Statement that only US Citizens or legal immigrants are
employed.

5. Proof of current workers compensation coverage, if required.

6. Any conclusions, remarks and/or supplemental information pertinent to this request.

VII. TERM OF CONTRACT:

A. The contract will commence upon award by the County Council.

B. If the Firm and/or Company awarded the bid subsequently fails to comply with the specifications, it will be given thirty (30) calendar days’ notice to render satisfactory service. If at the expiration of such thirty (30) calendar days’ notice, the unsatisfactory conditions have not been corrected, the County Council reserves the right to terminate the contract.

VIII. USE OF EXISTING DOCUMENTS:

Berkeley County will cooperate to the fullest extent by making available to the Firm/Company all documents pertinent to this service that may be in the County Council’s possession. Berkeley County makes no warranty as to the accuracy of existing documents nor will the County Council accept any responsibility for errors and omissions that may arise from the Firm/Consultant having relied upon them.

IX. COMPENSATION TO THE CONTRACTOR:

Invoices must be submitted to:

Berkeley County Council 400 W. Stephen Street Suite 201
Martinsburg, WV, 25401

Payment will be made within thirty (30) days of receipt and approval.

X. INSURANCE REQUIREMENTS:

Professional Liability – The successful Bidder must show evidence of professional liability insurance coverage in the amount of one million ($1,000,000) dollars, with a minimum coverage of one million ($1,000,000) dollars per occurrence and one million ($1,000,000) dollars
aggregate and must include coverage for errors, omissions and negligent acts, prior to execution of a contract with Berkeley County.

XI. PERFORMANCE, PAYMENT AND MAINTENANCE BONDS:

The successful Bidder will be required to furnish, at the Bidder’s expense, a Performance Bond and a Labor and Material Payment Bond for One Hundred Percent (100%) of the contract award. Bonds must be issued by a company licensed to transact surety insurance in West Virginia.

X. SELECTION PROCESS:

A. This solicitation is issued pursuant to the implementation of Berkeley County’s Purchasing Policy. Berkeley County shall not be liable for any costs not included in the proposal, not contracted for subsequently, or in regard to preparation of your proposal.

B. A Selection Committee appointed by the County Council will evaluate responses to this request and select those firms judged to be most qualified.

C. It is the County Council’s intent to open and review each firm’s Qualifications & Experience/ Technical Proposal to determine a firm’s qualifications, experience and technical approach to the services. If the Selection Committee determines that a firm’s Qualifications & Experience/Technical Proposal is acceptable, than price will be considered.

D. Since it is the County Council’s desire to select the most qualified firm, the Selection Committee reserves the right to schedule oral presentations from those firms it deems most qualified, to take place within ten (10) business days following notification.

E. Selection criteria to be used by the Committee are:

1. Responsiveness to the scope of work and these instructions;

2. Past performance of the firm including timely completion of services, compliance with scope of work performed within budgetary constraints, and user satisfaction;

3. Specialized experience and technical competence in performing relevant services in the past ten (10) years,
including qualifications of staff members who will be involved in these services;

4. Oral presentations, if required;

5. Composition of the principals and staff assigned to provide these services, particularly the proposed manager and immediate staff, and their qualifications and experience with services such as that being proposed;

6. Adequacy of the personnel of the firm to accomplish the proposed scope of work in the required time;

7. Firm’s capacity to perform the work, giving consideration to current workloads;

8. Firm’s familiarity with problems applicable to this type of services;

9. References from previous clients, including size and scope of the services, name and telephone number of contact person.


XI. PROPOSALS AND AWARD SCHEDULE:

A. Proposals received prior to the deadline will be treated as confidential, until receipt of all Proposals and opening of the same. Proposals received after the deadline will not be considered in the evaluation process and will be returned unopened.

B. It is expected that the contract award will be made within forty-five (45) calendar days after the opening of proposals. The contract will be awarded to the Company whose proposal, conforming to this request, will be the most advantageous to Berkeley County.

C. Proposals must give the full name and address of the proposer and the person signing the proposal shall indicate his or her title and/or authority to bind the firm in a contract.

D. Proposals may not be altered or amended after they are opened.

E. The approval or disapproval of the Company’s Proposal will be determined by its response to this request and on past performance.
No assumptions should be made on the part of the Firm/Company as to this Committee’s prior knowledge of their abilities.

F. Berkeley County reserves the right to request clarification of information submitted and to request additional information of one or more applicants.

XII. TERMS AND CONDITIONS:

A. The County Council reserves the right to reject any or all proposals or to award the contract to the next recommended Company if the successful Company fails to execute an agreement within ten (10) calendar days after being notified of the award of this proposal.

B. Berkeley County reserves the right to request clarification of information submitted and to request additional information of one or more applicants.

C. Any proposal may be withdrawn up until the date and time set within this RFP for the opening of the proposals. Any proposal not so withdrawn will constitute an irrevocable offer, for a period of ninety (90) calendar days, to sell to Berkeley County the services set forth above, in the manner and at the costs set forth.

D. The selected Company shall be required to enter into a contract agreement with the County Council. Any agreement or contract resulting from the acceptance of the proposal shall be made on forms approved by the Berkeley County In-House Legal Director and shall contain, at a minimum, applicable provisions of this request for proposal. The County Council reserves the right to reject any agreement that does not conform to this request for proposal and any Berkeley County requirements for agreements or contracts.

E. Selected Firm/Company shall not assign any interest in the contract and shall not transfer any interest in the same without prior written consent of the Berkeley County Council.

F. No reports, information or data given to or prepared by the Firm/Company under this agreement shall be made available to any individual or organization by the Firm/Company without the prior written approval of the Berkeley County Council.

G. Firms/Companies shall give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification why such materials, upon request, should not be disclosed by the
County Council under the West Virginia Freedom of Information Act.

H. Berkeley County shall not be liable for any costs incurred by the Firm/Company in regard to preparation of its proposal.

I. Berkeley County reserves the right to request interviews.

J. The County Council reserves the right to reject any and/or all proposals, to waive technicalities, and to take whatever action is in the best interest of the County.

K. Berkeley County reserves the right to not hold discussions after award of the contract.

L. By submitting a proposal, the Firm/Company agrees that it is satisfied, as a result of its own investigations of the conditions set forth in this request, and that it fully understands the obligations set forth therein.

M. The Firm/Company shall abide by and comply with the true intent of the RFP and its Scope of Work and shall not take advantage of any unintentional error, ambiguity or omission, but shall fully complete every part as contemplated by the true intent and meaning of the scope of services described herein. Clarifications may be requested and dealt with at the Pre-Proposal Conference.

N. The Firm/Company hereby represents and warrants:

1. That it is now, or will be by the time its Proposal is opened, qualified to do business in the State of West Virginia and that it will take such action as, from time to time hereafter, may be necessary to remain so qualified;

2. That it is not in arrears with respect to the payment of any monies due and owing the State, or any department or agency thereof, including, but not limited to, the payment of taxes and employee benefits, and that it shall not fall into arrears during the term of the contract; that it shall comply with all federal, State, and local laws, ordinances, and legally enforceable rules and regulations applicable to its activities and obligations under the contract;

3. That it shall procure, at its expense, all licenses, permits, insurance, and governmental approvals, if any, necessary to the performance of its obligations under the contract;
4. That the facts and matters set forth hereafter in the contract and made a part hereof are true and correct.

O. In addition to any other remedy available to Berkeley County, breach of any of the services contracted herein shall, at the election of the County Council, be grounds for termination of the contract. Failure of the County Council to terminate the contract shall not be considered or construed as either a waiver of such breach or as a waiver of any rights or remedies granted or available to Berkeley County.

P. **HOLD HARMLESS/INDEMNIFICATION:** If a contract is awarded, the successful Firm/Company will be required to indemnify and hold Berkeley County, its agents and/or employees harmless from and against all liability and expenses, including attorney's fees, howsoever arising or incurred, alleging damage to property or injury to, or death of, any person arising out of or attributable to the Firm’s/Company’s performance of the contract awarded. Any property or work to be provided by the Firm/Company under the contemplated contract will remain at the Firm’s/Company’s risk until written acceptance by the County Council; and the Firm/Company will replace, at Firm’s/Company’s expense, all such property or work damaged or destroyed by any cause whatsoever, prior to its acceptance by the County.

Q. **Termination for Convenience:** Berkeley County may terminate this or any contract, in whole or in part, whenever the County Council determines that such termination is in the best interest of the County, without showing cause, upon giving 30 days written notice to the Firm/Company. Berkeley County shall pay all reasonable costs incurred by the Firm/Company up to the date of termination. However, in no event shall the Firm/Company be paid any amount that exceeds the price proposed for the work performed. The Firm/Company will not be reimbursed for any profits which may have been anticipated but which have not been earned up to the date of termination.

R. **Termination for Default:** When the Firm/Company has not performed or has unsatisfactorily performed the contract, Berkeley County may terminate the contract for default. Upon termination for default, payment may be withheld at the discretion of the County Council. Failure on the part of a Firm/Company to fulfill the contractual obligations shall be considered just cause for termination of the contract. The Firm/Company will be paid for services satisfactorily rendered prior to termination less any excess costs incurred by Berkeley County in re-procuring and completing the work.
S. The contractual obligation of Berkeley County under the contemplated contract is contingent upon the availability of appropriated funds from which payment for this contract can be made.

T. **INTERPRETATION:** The contract resulting from this proposal shall be construed under the laws of the State of West Virginia.

XV. **INTERPRETATIONS, DISCREPANCIES, OMISSIONS:**

Should any Firm/Company find discrepancies in, or omissions from, the documents or be in doubt of their meaning, they should at once request in writing an interpretation from the County Council. All necessary interpretations will be issued to all Firms/Companies in the form of addenda to the specifications, and such addenda shall become part of the contract documents. Failure of any Firm/Company to receive any such addendum or interpretation shall not relieve such Firm/Consultant from any obligation under their proposal as submitted. Berkeley County will assume no responsibility for oral instructions or suggestions. **ORAL ANSWERS SHALL NOT BE BINDING ON BERKELEY COUNTY.** No requests received after **4:00 p.m., Wednesday, April 3, 2019** will be considered. Every interpretation made by Berkeley County will be made in the form of an addendum that, if issued, will be sent by Berkeley County to all interested parties.
LIST OF APPENDICES THAT ARE ATTACHED

Attachment A – Chiller Plant/HVAC System upgrade

Attachment B – HVAC System Full Service Contract Pricing

Attachment C – Non-Collusion Certificate

Attachment D - System Warranty: Provide both manufacturer and installation warranty period and a complete detail of what is covered by both.

Attachment E - Specifications to include

• NOTE: It is the Council’s intent for the successful system to be integrated into the building management software currently used within the County. Berkeley County currently utilizes the Trane Tracer Ensemble software to configure and manage most of the HVAC systems in its buildings. If the proposed system cannot be managed by the current software package please define how the proposed system will be managed and what tools will be available to the end user after installation.
ATTACHMENT A PRICE PROPOSAL

INSTRUCTIONS
This sheet must be placed on the very top of your price proposal. The County Council will utilize this sheet for purposes of reading the proposal into the public record.

Berkeley County Council
400 West Stephen Street
Suite 201
Martinsburg, WV, 25401

Bid Title: Chiller Plant/HVAC Upgrade

MANDATORY Pre-Bid Conference: March 25, 2019 @ 1:00 pm @ 400 W. Stephen Street, Suite 205, Martinsburg, WV 25401

Bid Due Date & Time: Wednesday, April 10, 2019 no later than 4:00 PM

Bid Opening Date & Time: Thursday, April 11, 2019 @ 10:00 AM

We have received all documents related to the above referenced project. We have examined all documents, attended the mandatory pre-bid conference, and have had the opportunity to examine the site area where work is to be performed. We hereby propose to furnish all labor, materials, equipment and incidentals and to perform all operations necessary and required for the successful completion of the project.

Lump Sum Price Individual Chiller Plant/HVAC Upgrade listed in Request for Proposal including all addendums and attachments:

$______________________________

Contractor Name &
Address: ________________________________

________________________________________

Title: ____________________________________.

West Virginia Contractor’s
Number: ________________________________
ATTACHMENT B
PRICE PROPOSAL

INSTRUCTIONS
This sheet must be placed on the very top of your price proposal. The County Council will utilize this sheet for purposes of reading the proposal into the public record.

Berkeley County Council
400 West Stephen Street
Suite 201
Martinsburg, WV, 25401

Bid Title: Dunn Building Full Service Maintenance Contract

We have received all documents related to the above referenced project. We have examined all documents, attended the mandatory pre-bid conference, and have had the opportunity to examine the site area where work is to be performed. We hereby propose to furnish all labor, materials, equipment and incidentals and to perform all operations necessary and required for the successful completion of the project.

Lump Sum Price Dunn Building Full Service Maintenance Contract listed in Request for Proposal including all addendums and attachments:

$__________________________________________

Contractor Name &
Address:____________________________________

______________________________

Title: ________________________________________

West Virginia Contractor’s
Number:__________________________________
ATTACHMENT C
NON-COLLUSION CERTIFICATE

I HEREBY CERTIFY I am the ____________________________________________________

>Title

and the duly authorized representative of the firm of

____________________________________________________________________________

_______________________________________________

whose address is

____________________________________________________________________________

AND THAT NEITHER I nor, to the best of my knowledge, information and belief, the above

firm nor any

of its other representatives I here represent have:

(a) Agreed, conspired, connived or colluded to produce a deceptive show of competition in

the compilation of the bid or offer being submitted herewith;

(b) Not in any manner, directly or indirectly, entered into any agreement, participated in any

collusion to fix the bid price or price proposal of the bidder or offeror herein or any competitor,

or competitive bidding in connection with the Contract for which the within bid or offer is

submitted; and that no member of the County Council of Berkeley County, West Virginia,

administrative or supervisory personnel or other employees of Berkeley County have any

interest in the bidding company except as follows: (complete if applicable)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

I solemnly affirm under the penalties of perjury that the contents of the aforegoing paper are true

to the best of my knowledge, information, and belief.

____________________________

Signature

__________________________

Date

Printed or Typed Name
ATTACHMENT D
SYSTEM WARRANTY
Provide both Manufacturer and Installation Warranty
ATTACHMENT E
SPECIFICATIONS