GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

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November 09, 2023

Addendum No. 2
BL143-23
F. Wayne Hill Water Resources Center Boilers and Hot Water Supply Pumps Replacement
*****BID SUBMITTAL DEADLINE HAS BEEN POSTPONED UNTIL DECEMBER 07, 2023, NO LATER THAN 2:50 P.M.*****

*The following addition/changes modify the Bid No. BL143-23 "*F. Wayne Hill Water Resources Center Boilers and Hot Water Supply Pumps Replacement*" Contract Documents, dated August, 2023, as first advertised on October 11, 2023.*

I. Modifications:

Make the following changes throughout the Front-End Documents specifications changes below:

M1. Bid submittal date and location:

Sealed bids will be received by the Gwinnett County Department of Financial Services - Purchasing Division-2nd Floor, 75 Langley Drive, Lawrenceville, Georgia 30046 until **2:50 P.M. local time on** ~~November 16, 2023~~ **December 07, 2023** and then publicly opened and read aloud at 3:00 P.M. Any bid received after 2:50 P.M. will not be accepted. Bid envelope must be marked on the outside with Bid Number, name of Bidder, date and time of opening. Contractor providing the utility work must have a current valid Utility Contractors License.

M2. Instructions on Submitting Questions

Questions regarding bids should be submitted to Brittany Bryant, Purchasing Associate II at fax 770-822-8728, or email Brittany.Bryant@gwinnettcounty.com no later than 3:00 p.m. local ~~November 07, 2023,~~ **November 14, 2023**. Bids are legal and binding upon the bidder when submitted.

II. Questions:

Q1. Would Gwinnett County be willing to extend the bid opening deadline to December 07, 2023, due to the week leading up to Thanksgiving holiday can be difficult to obtain pricing.
A1. The Bid Opening date will be changed to December 7, 2023 at 2:50PM.

Q2. Are there any domestic requirements on the stainless steel and valves?
A2. No. There are no domestic requirements for stainless steel and valves.

Q3. The P&ID shows a communication dashed line between the control and the boiler but does not define the control signal type. The notation suggests a PLC tag and not a discrete/physical wire type. So I think they don't know how it is done currently. See page 112 of 119 sheet 40 I-403, Connection C6 [2], Connection 5D [1].
Our question based on the Hawk's requirements is below:

1. **Can the system provide the following control signals between the "Preferred" control panel and each boiler?**
   - **a. Setpoint output to each boiler:**
     4-20 mA
   - **b. Enable output to each boiler start/stop boilers:**
     Dry contact 120 VAC (closed contact allows boiler to start)
   - **c. Boiler ready status input from each boiler:**
     Dry contact 120 VAC (closed contact indicates boiler is available)
   - **d. Boiler Alarm status input from each boiler:**
     Dry contact 120 VAC (closed contact indicates boiler is in Alarm condition)

A3. The client preferred Boiler (PLC) to Master Control Panel (PLC) signal exchange should be (Rockwell)Ethernet/IP. The County SCADA specifications allow Modbus TCP/IP protocol. Each boiler has a safety hardwired interlock to the Boiler Master Control Panel MCR relay for the building exterior emergency stop stations. If an additional hardwired safety interlock is required by the boiler manufacturer to the Master Control Panel, then that needs to be included. The Boiler Controlled VFD's have hardwired signals and communication signals via (Rockwell)Ethernet/IP.

Q4. Are any other signal types or functions required to interface with the existing plant control system?

A4. The hardware connections between control devices and Plant PLC-SCADA system should be well defined. If there are questions, ask the more specific questions needed to clarify this. The added VFD's in the project communicate part of their status and control signals to the Boiler Control Panel, the Boiler Master Control Panel or the Plant PLC-SCADA system via (Rockwell) Ethernet/IP. The Boiler Master Control Panel will communicate to the Plant PLC-SCADA system via dual (Rockwell)Ethernet/IP to provide communication redundancy. The Boiler to Master Control Panel should follow the answer in A6 (above). The Digester Gas (Hawk) or equivalent panel can feed its hardwired or communication signals thru the Boiler PLC's to the Boiler Control Panel or sent the status information directly to the Master Control Panel via (Rockwell)Ethernet/IP or Modbus TCP/IP protocols.

Q5. Please confirm what PLC is in the Preferred panel.

A5. The Master Boiler Control Panel PLC and HMI do need to be upgraded to meet section **40 6343 - PROGRAMMABLE LOGIC CONTROLLERS specification** for a **MEDIUM** size PLC system. The Master Control Panel PLC and HMI are a ControlLogix PLC with a PanelView HMI but are not the requested versions.

Q6. Please provide a copy of specification regarding the Digester fuel gas analysis?

A6. Digester gas composition data is provided in the table below. Hydrogen Sulfide range for design is 50-200 ppmv.

		Sample Dates		
Parameter	**Units**	3/2017-8/2019	7/7/2022	7/6/2023
Methane	%	60.3-73.0	67.4	66.4
Carbon Dioxide	%	20.4-35.1	29.4	30.7
GHV	Btu/scf	612-742	685	675
NHV	Btu/scf	551-667	616	607
Nitrogen	%	0.89-3.03	1.23	1.08
Oxygen	%	0.49-2.58	0.99	0.62
Organic Silicon	ppmv	1.3-8.7	0.69	2.53

Note: Gas sample analyses by Analytical Solution Inc.

Acknowledge receipt of this addendum on the firm information page of the request for proposal.

Sincerely,

Brittany Bryant, CPPB

Purchasing Associate III