

March 22, 2021

To: Prospective Bidders

Subject: City of Wilson Substation System BESS Project
RFP #20-9937-8001
Addendum No. 1

Dear Bidder:

Below is Addendum No. 1 covering common questions regarding the RFP. The addendum is offered in the form of answers to questions received from prospective bidders on this project. Updated pages have been included which may be replaced in your copy of the RFP.

<u>Revised Page</u>	<u>Update Summary</u>
IB-1 R	Section numbering fixed
P-17 R	Offloading responsibilities clarified
S-1 R	Section reference fixed
S-7 R	Offloading responsibilities clarified
S-14 R	Section reference fixed

- Q: Is the bid opening public?

A: This bid opening is public and any of the bidders or their representatives may attend.

Address:

Booth & Associates, LLC
5811 Glenwood Ave. Ste. 109
Raleigh, NC. 27612

- Q: Is the City of Wilson planning to let the system degrade from BOL over term, or are they expecting to augment to maintain duration (e.g., 2/3/4 hours)?

A: Page S-8 and S-9 documents the energy rating at the Beginning of Life through the End of Term, which refers to the end of the warranty term. The bidder may propose how best to meet the requirements either through Oversizing or an Augmentation plan. The Power and Energy ratings should match the ratings at the BOL throughout the warranty term.

- Q: Will there be consideration on a per-site basis, or will this project be awarded as a lump sum?

A: The project will be awarded on a per-site basis.

- Q: Will a bid that includes some, but not all configurations, be considered or will all sites need to be included to be considered responsive?

A: Any bid will be considered responsive if it includes the purchase option for whichever configurations are proposed. Long term PPAs or tolling agreements will be considered along with bids that also have the purchase option for the respective configuration.

- Q: What is the KVA rating of the station power available to the BESS? Is it the same rating at each location?

A: The station power has not been installed yet. The Owner can provide transformers for any reasonable BESS requirements.

- Q: Is the City of Wilson primarily seeking offers from OEMs for battery equipment purchase?

A: The City would like to consider options to purchase as well as options for others to own while the City dispatches. The selection between those options will be based on a cost/benefit analysis and availability of funds for purchase.

- Q: Please clarify further why there are so many different configurations.

A: The City is installing these BESSs at 12 different sites which each have different load availability. They would like to perform a cost/benefit analysis to best utilize the new systems based on the dispatchable hours and an agreement to operate the BESSs owned by others under a tolling agreement.

- Q: It looks like the City of Wilson plans to purchase all 14 BESS options. Is that correct?

A: The City intends to purchase at least the first 12 Schedules, Schedule 13 and 14 will be selected to increase the capabilities at each site if the cost/benefit analysis warrants it.

- Q: Will there be a second bid for the installation and construction for these projects? If not, has a contractor already been selected?

A: There will be a second bid for the site preparation construction which will include all subgrade work including foundations. The installation of the BESS beyond the foundation and subgrade work will be the responsibility of the bidder up to the transformer primary voltage connections. The bidder will be expected to submit enough information to the owner such that the subgrade requirements can be determined including but not limited to equipment dimensions and weights, power/communication needs, equipment clearances for maintenance, etc.

- Q: Page 22 states that “unloading onto a permanent concrete pad (supplied by the Owner), is this correct?

A: The foundation will be supplied by the owner it may be concrete or helical piles.

- Q: Page 23-36 state in the bid schedules a pricing component for “Field Service Support –Construction/Installation, Startup, Commission & Training”, is this correct?

A: This is correct, this includes the scope outside of the material costs. Engineering, Installation, Commissioning, etc. This does not include the cost of the subgrade construction which will be the responsibility of the owner.

- Q: Page 38 states that “the prices quoted shall include delivery of the materials and equipment by open-top truck FOB to the point of delivery in Wilson, North Carolina, assuming unloading by the City”, is this correct?

A: Equipment unloading will not be performed by the City, it will be the responsibility of the bidder, a corrected page is issued with this Addendum.

- Q: Page 43 (Section 1.0) states that “The City of Wilson, North Carolina seeks firm quotations for the purchase and installation of twelve (12) Battery Energy Storage System (BESS). These Specifications cover the design, manufacture, delivery, and installation... for a complete and fully operable system”, is this correct?

A: This is correct. Schedules 13 and 14 may be selected to add to the BESSs at the 12 sites.

- Q: Page 43 (Section 1.0) further states “The bidder shall furnish all other material not listed in Section 2.5 of these Specifications (Page S-2) that is required to complete the project limited to the modularized equipment and step-up transformer. Note that Section 2.5 is about the steps at the end of the tolling agreement and the decommissioning of the site. Please Clarify.

A: Page 43 has been updated to reference the appropriate section which is 2.8 (Page S-3)

- Q: Page 45 (Section 2.7.4) states that offloading shall be the responsibility of the Bidder, is this correct?

A: This is correct

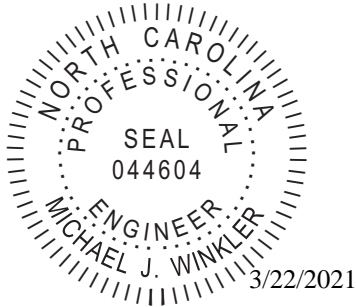
- Q: Page 47-48 (Section 2.8) states that “The Bidder shall be responsible for designing, supplying, installing, and commissioning (“turn-key”) the BESS system up to the 12.47kV transformer. The secondary voltage shall be 1000VAC or less. The Owner shall install the secondary voltage cables per Bidder’s Specification as well as the primary system”. Please Clarify.

A: The Owner will provide the subgrade construction installation/material and foundation installation. The Owner will be responsible for the primary interconnection to the Utility as defined in Exhibit 3. The bidder will need to provide the remaining scope.

- Q: Page 48 (Section 6.0) states that “Offloading will be the responsibility of the Bidder”, is this correct?

A: This is correct

We appreciate your interest in this project and look forward to hearing from you. Please include this signed Addendum acknowledgement.



Sincerely,

BOOTH & ASSOCIATES, LLC

Michael Winkler, PE

20-9937-8011

ACKNOWLEDGEMENT

Bidder: _____

By: _____

Date: _____

INSTRUCTIONS TO BIDDERS

1. Proposals

- 1.1 To warrant consideration, Proposals must comply with these instructions.
- 1.2 Proposals must be made on the Bidder's Proposal provided herein and must not be altered, erased, or interlined in any manner. The Bidder shall follow the Bidder's Proposal as detailed in the instructions. The Bidder may retain one (1) copy, but the original, fully executed, must be inserted or be attached to the Specification Documents. In addition, one (1) extra copy of all executed forms and supporting information shall be supplied.
- 1.3 The Bidder shall furnish certain information, as required by the Specifications, regarding the equipment on which he is bidding. Two (2) copies of the information, together with the Manufacturer's literature setting forth the guarantees and describing the equipment on which he is bidding, shall be included as part of the Bidder's Proposal. If one Manufacturer is bidding through two (2) or more agents or representatives, then descriptive literature, guarantees, etc., may be submitted in duplicate in one sealed envelope, said envelope to be considered and treated as though it contained a sealed bid, in which shall be listed the names of Bidders to whom the information applies. Each sealed bid without this information shall state the Manufacturer who is furnishing the information. Additional sets of these Specifications may be obtained by approved Bidders from the Engineer upon request and receipt of a non-refundable deposit of fifty dollars (\$50.00).
- 1.4 The Owner is soliciting options to purchase the equipment along with offers for the equipment to be provided for a monthly fee as a Tolling Agreement. The same equipment shall be provided under the Tolling Agreement option as that which would be provided for purchase. The Owner reserves the right to dispatch at their discretion per the specifications using their controls equipment. To be considered a responsive Tolling Agreement bid, the bidder must also include a bid for purchase as well.
- 1.5 Proposals shall include a Form of Exceptions utilizing forms provided which shall itemize each and every exception from the Specifications. The Form of Exceptions shall state the section, subsection, and paragraph designations from the part of the Specifications to which exception is taken and explain in detail the nature of the exception. A copy of the Form of Exceptions is included in the Bidder's Proposal section. Exceptions will not necessarily eliminate a Bidder from consideration, even if bids without exceptions are received from others. The treatment of exceptions will be based entirely on the overall best interests of the City. Failure to state exceptions, assumes complete compliance with Specifications.
- 1.6 Bids may be modified by the Bidder's removal of his original bid and the submittal of a completely revised bid package in full compliance with the Plans and Specifications and bid documents all prior to the time of opening bids. No oral or telephonic Proposals will be considered.
- 1.7 Should the Bidder find discrepancies in the documents or should he be in doubt as to their meaning, he shall at once notify the Engineer who will send written instructions to all Bidders. Neither the City nor the Engineer will be responsible for any oral instructions.
- 1.8 The Bidder shall be the Manufacturer of the equipment, or the Bidder shall submit with the Proposal a notarized statement that the Bidder is authorized by the Manufacturer to tender the Proposal as submitted and that the Manufacturer will guarantee the suitability and adequacy of the equipment proposed, and will be bound by the Specifications, as though the Manufacturer had submitted the Proposal.

2. Payment

Payment by the City to the successful Bidder shall be made in a lump sum for each item after delivery and it has been verified that the equipment meets the Specifications. Compliance to Specifications shall be verified within ninety (90) days of the date of delivery.

BID SCHEDULE NO. 16 – Field Service Engineering / O&M

Per Day Rate (including expenses) for
field service engineering for additional days

\$_____/Day

Per Year Rate (including expenses) for
field Operation and Maintenance (O&M) Services

\$_____/Year

1. The prices of Materials set forth herein do not include any sums which are or may be payable by the Bidder on account of North Carolina sales tax upon the sale, purchase, or use of the Materials hereunder. The amount thereof shall be added to the purchase price and paid by the City after the Bidder has ascertained the actual sales tax to be included.
2. The Materials will conform to the "Specifications for Battery Energy Storage System" attached hereto and made a part hereof.
3. The City may accept any Schedule or portion thereof.
4. Price Policy: The prices quoted in the Proposal shall be firm unless otherwise stated.
5. The prices quoted shall include delivery of the materials and equipment by open-top truck FOB to the point of delivery in Wilson, North Carolina, **unloading provided by the bidder.**

The time for delivery shall be extended for the period of any reasonable delay due exclusively to causes beyond the control and without fault of the Bidder, including acts of God, fires, floods, strikes, and delays in transportation.

Delivery of all items of equipment to the City's designated delivery point shall be made to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday, holidays excluded.
6. Receipt of Approval Drawings by the Bidder constitutes authorization for manufacture predicated upon the Drawings and corrections found thereon. After the return of Approval Drawings, release for shipment is to be granted by either the City or its Engineer based upon the Manufacturer's compliance with the following:
 - (1) Notification of tests so the City may have a representative present to witness the tests.
 - (2) Furnishing of the requested number of copies of the Final Drawings as called for in the Specifications.
 - (3) Coordination of manufacturing and delivery with the City's construction schedule as may be noted in these Specifications.
 - (4) Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to all deliveries.
7. Title to the materials and equipment shall pass to the City upon delivery to the point specified herein.
8. This Proposal is made pursuant to the provisions of the Notice and Instructions to Bidders and the Specifications, and the Bidder agrees to the terms and conditions thereof.
9. The Bidder warrants the accuracy of all statements contained in the Bidder's qualifications, if any shall be submitted, and agrees that the City shall rely upon such accuracy as a condition of the Purchase Order in the event that this Proposal is accepted.
10. The Bidder warrants that the Materials will conform to the performance data and guarantees which are attached hereto and by this reference made a part hereof.

**CITY OF WILSON
WILSON, NORTH CAROLINA**

BATTERY ENERGY STORAGE SYSTEM (BESS)

TECHNICAL SPECIFICATIONS

1.0 Scope

The City of Wilson, North Carolina seeks firm quotations for the purchase and installation of twelve (12) Battery Energy Storage System (BESS). These Specifications cover the design, manufacture, delivery, and installation, in good order, for a skid-mounted or containerized energy storage system including battery(ies), controller, inverter, transformer, cooling, thermal management (BMS), fire protection, SCADA interface, and all other associated hardware and equipment for a complete and fully operable system. **The Bidder shall furnish all other material not listed in section 2.8 of these Specifications (Page S-3) that is required to complete the project limited to the modularized equipment and step-up transformer. The site preparation will be completed by the Owner. The Bidders must confirm the site areas defined in Exhibit 4 are an appropriate size and dimension for the installation of the equipment as defined by the bid schedules. While the bidders will not be responsible for site preparation, the layout and design will be mutually determined. By submitting a bid the bidders confirm the site dimensions meet their typical standards for access and maintenance.**

Bids will be received as follows:

Bid Schedule No. 1: Purchase of one (1) 14 MW / 28-56 MWh energy storage system. The BESS includes inverters, batteries, and enclosures, coordinating site controls, and all battery thermal management. Firm quotations should be based upon placement of an order within sixty (60) days from the bid date. The Owner may elect to increase the overall site capability and capacity by purchasing and incorporating options from Bid Schedule No. 13 and/or Bid Schedule No. 14. The potential site increase if selected would increase the system for Bid Schedule No. 1 to 16 MW.

Bid Schedule No. 2: Purchase of one (1) 5 MW / 10-20 MWh energy storage system. The BESS includes inverters, batteries, and enclosures, coordinating site controls, and all battery thermal management. Firm quotations should be based upon placement of an order within sixty (60) days from the bid date. The Owner may elect to increase the overall site capability and capacity by purchasing and incorporating options from Bid Schedule No. 13 and/or Bid Schedule No. 14. The potential site increase if selected would increase the system for Bid Schedule No. 2 to 10 MW.

Bid Schedule No. 3: Purchase of one (1) 12 MW / 24-48 MWh energy storage system. The BESS includes inverters, batteries, and enclosures, coordinating site controls, and all battery thermal management. Firm quotations should be based upon placement of an order within sixty (60) days from the bid date.

Bid Schedule No. 4: Purchase of one (1) 3 MW / 6-12 MWh energy storage system. The BESS includes inverters, batteries, and enclosures, coordinating site controls, and all battery thermal management. Firm quotations should be based upon placement of an order within sixty (60) days from the bid date. The Owner may elect to increase the overall site capability and capacity by purchasing and incorporating options from Bid Schedule No. 13 and/or Bid Schedule No. 14. The potential site increase if selected would increase the system for Bid Schedule No. 4 to 6 MW.

Bid Schedule No. 5: Purchase of one (1) 8 MW / 16-32 MWh energy storage system. The BESS includes inverters, batteries, and enclosures, coordinating site controls, and all battery thermal management. Firm quotations should be based upon placement of an order within sixty (60) days from the bid date. The Owner may elect to increase the overall site

unloading ~~by City's personnel~~. Offloading will be the responsibility of the Bidder.

- 6.2 Before shipment, the individual components of the BESS shall be assembled. Parts removed for shipment shall be marked so as to permit easy identification when reassembling.
- 6.3 Method of packing and loading shall be such as to protect all parts from dampness, corrosion, breakage, or vibration injury that might reasonably be encountered in transportation, storage, and handling.
- 6.4 Release for shipment is to be granted by the City's Engineer based upon the Manufacturer's compliance with the following:
 - 6.4.1 Providing fourteen (14) consecutive days prior notification of tests so that the City may have a representative present for witness of the tests.
 - 6.4.2 Furnishing of the requisite number of copies of the Final Drawings as called for in the Specifications.
 - 6.4.3 Coordination of manufacturing and delivery with City's construction schedule as may be noted in these Specifications.
 - 6.4.4 Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to all deliveries.
 - 6.4.5 **Under no circumstances** will the City accept deliveries arriving on Saturdays, Sundays, or nationally observed holidays. The Bidder shall take precautions as necessary to avoid scheduling such deliveries. Deliveries will be received between 9:00 a.m. and 3:00 p.m., Monday through Friday only.

7.0 Manufacturer's Field Representative (Engineering / O&M)

The Manufacturer shall provide the services of Field Service Labor and Engineer(s) to assist the City with pre-service inspection and assembly of the BESS. Suitable effort for construction, initial inspection, assembly, start-up, and commissioning shall be included in the Base Price. Additionally, the Manufacturer shall conduct an on-site training for the Owner on proper system interface and maintenance. The Bidder shall also conduct an on-site training for the local Fire Authorities on proper emergency response procedures.

Services provided by the Field Service Engineer shall include all pre-service inspection procedures outlined in the Manufacturer's literature. The Field Service Engineer may also be required by the City to perform a series of system tests to satisfy Manufacturers' recommendations and warranty requirements.

Annual Maintenance Option

The Bidder is also asked to furnish annual maintenance rates for consideration. The Bidder shall provide specifics as to type and frequency of recommended maintenance services offered to maintain BESS performance and reliability. The basic services shall include an annual inspection of general condition:

- Electrical connections
- Paint and damage
- Labels and markings
- Component inspections
- Cooling system
- Perform software upgrades
- LV equipment inspection including any breakers

In the event of a “dead bus,” where the load is unable to be sustained by the battery inverters or the command to stop has been issued, the battery inverters shall remain in a stopped state until commanded to start.

11.3 Grid Disconnection

If the circuit breakers leading from the BESS to the main bus are opened, the Battery will enter an “inhibit” mode – this will stop the Battery switching and will wait for the circuit breakers to be reclosed before automatically restarting conversion.

11.4 Start Operation

If the battery inverter is requested to start when the bus is live, the control system will close the AC Grid circuit breaker and synchronize to the existing bus voltage and phase. At this point the inverter is on-line and can import or export real or reactive power as determined by the external control system and the internal control loops. Each BESS Block should have a Master controller for SCADA to interface, which can operate all the equipment within that Block as a single entity. The battery controller for the site should be capable of following a load signal provided by the Owner such that the power output does not exceed the load signal for a period longer than two (2) seconds. Protection will be put in place by the utility to ensure the power output does not exceed these parameters and will disconnect the system if these Specifications are not met. Power quality issues introduced onto the utility grid will be prohibited and protected against by the Utility by opening the protective recloser. Either events shall be covered under warrantee, and as such trigger Liquidated Damages as described in section **1.5 and 3.1.3**.

11.5 Stop Operation

If the battery inverter is requested to stop, the following procedures must occur:

11.5.1 The battery inverter will reduce the power (real and reactive) output to zero according to a ramp function.

11.5.2 The AC grid circuit breaker will be opened.

12.0 **BESS System Protection**

The following methods of protection are required with the battery inverter:

1. System External Inverter Protection
 - a. Insulation monitoring (Earth fault)
 - b. Emergency Stop
 - c. Fire alarm
2. Intrinsic Inverter Protection
 - a. Inverter over-temperature
3. AC Intrinsic Inverter Protection
 - a. Anti-islanding (via digital input only)
 - b. Over-current
 - c. Over-voltage
 - d. Under-voltage
 - e. Over-frequency
 - f. Under-frequency