



Working Together for a
Better Tomorrow. Today.

PGS Bottom Ash System Upgrades

REQUEST FOR PROPOSAL

C130834

Proposals due

Tuesday, November 2, 2021 @ 4:00 p.m. (local time)
City of Grand Island, City Hall
100 East 1st Street, P.O. Box 1968
Grand Island, NE 68802-1968

Contact Information

City of Grand Island Utilities Department
Tylor Robinson, Power Plant Superintendent
Platte Generating Station
Grand Island, NE 68801
O: 308-385-5496

Issued: September 24, 2021

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**ADVERTISEMENT FOR PROPOSALS
PLATTE GENERATING STATION BOTTOM ASH SYSTEM UPGRADES
FOR
CITY OF GRAND ISLAND, NEBRASKA**

Proposals will be received at the office of the City Clerk, 100 E. First Street, P.O. Box 1968, Grand Island, Nebraska 68802, until Tuesday, November 2, 2021 at 4:00 p.m. local time for the above Proposal specification, FOB the City of Grand Island. Site inspections can be arranged by contacting Tylor Robinson (308) 385-5495 for an appointment.

Proposals shall include the following on the outside of the envelope: **“Proposal for Platte Generating Station Bottom Ash System Upgrades”**. All proposals must be signed and dated in order to be accepted. Proposals shall be addressed to the attention of Tylor Robinson, Power Plant Superintendent.

The specification is also available at www.grand-island.com under *Business, Bids & Request for Proposals- Bid Documents*. **Four complete copies with the original** proposal shall be submitted for evaluation purposes if submitting by mail. Bidding documents, plans, and specifications for use in preparing and submitting bids online may be downloaded from the QuestCDN website, www.QuestCDN.com for a \$30 fee. The proposal must be uploaded to the QuestCDN website or four complete copies by mail must be received at the City Clerk’s office before the specified time for evaluation purposes.

Proposals received after the specified time will be returned unopened to sender. Proposals will be evaluated by the Purchaser based on Contractor’s response to the proposal, experience of the company and project personnel, commercial terms, and pricing to perform the project required. All Proposals shall be valid for at least 30 days after the Proposal deadline for evaluation purposes.

The successful bidder shall comply with the City’s insurance requirements and supply performance and payment bonds.

The Purchaser reserves the right to reject any or all proposals, to waive irregularities therein, and to accept whichever proposal that may be in the best interest of the City, at its sole discretion.

RaNae Edwards, City Clerk

Advertised

INSTRUCTIONS TO BIDDERS - PROPOSAL

1. GENERAL INFORMATION.

The following instructions outline the procedure for preparing and submitting Bids. Bidders must fulfill all requirements as specified in these Documents.

2. TYPE OF BID.

Bidders shall be required to submit prices for all items listed in the Detailed Specifications.

3. PREPARATION/SUBMISSION OF PROPOSAL.

All Proposals must be submitted intact not later than the time prescribed, at the place, and in the manner set forth in the ADVERTISEMENT FOR BIDS. Proposals must be made on the Company's official letterhead, and must be signed and dated to be accepted. Each Proposal must be submitted intact in a sealed envelope, so marked as to indicate its contents without being opened, and delivered in person or addressed and mailed in conformance with the instructions in the ADVERTISEMENT FOR BIDS.

Proposal package and any Addenda is also available on-line at www.grand-island.com/Business/bids-&-request-for-proposals/Bid-Documents through QuestCDN. Bidding documents, plans, and specifications for use in preparing and submitting bids online may be downloaded from the QuestCDN website, www.QuestCDN.com for a \$30 fee. Submitting through QuestCDN requires one original document of the bid to be uploaded (no zip files). Any Proposal received after the specified date will not be considered. No verbal Proposal will be considered.

The Bidder shall acknowledge receipt of all addenda. Proposals received without acknowledgement or without the Addendum enclosed will be considered informal.

If exceptions and/or clarifications are noted to the proposal, those exceptions must be fully explained on a separate sheet, clearly marked, and included with the Proposal. Any changes that are found made to the original specification, other than Owner generated Addendums, could result in your bid not being considered.

The City reserves the right to reject any or all proposals and to select the proposal, which is deemed to be in the City's best interest, at its sole discretion.

All Proposals shall be valid for at least thirty (30) working days after the Proposal deadline for evaluation purposes.

4. BASIS OF AWARD

The award will be made by the OWNER on the basis of the Proposal from the lowest responsive, responsible Bidder which, in the OWNER's sole and absolute judgment will best serve the interest of the OWNER.

All Proposals will be considered on the following basis:

- | | | | |
|----------------------------|-------|---------------------|-------|
| 1. Proposal Responsiveness | (x 2) | 4. Commercial Terms | (x 1) |
| 2. Project Schedule | (x 1) | 5. Estimated Costs | (x 1) |
| 3. Company Experience | (x 2) | 6. Rates Schedule | (x 1) |

The OWNER reserves the right to reject all Proposals, or any Proposal not in conformance with the intent of the Bid Documents, and to waive any informalities and irregularities in said Proposal.

5. EXECUTION OF CONTRACT.

The successful Bidder shall, within fifteen (15) days after receiving notice of award, sign and deliver to the OWNER the Contract hereto attached, if required, together with the acceptable bonds as required in these Bid Documents. Within fifteen (15) days after receiving the signed Contract with acceptable bond(s) from the successful Bidder, the OWNER's authorized agent will sign the Contract. Signature by both parties constitutes execution of the Contract.

6. TIME OF COMPLETION.

The time of completion of the Work to be performed under this Contract is the essence of the Contract.

8. GRATUITIES AND KICKBACKS

City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

9. FISCAL YEAR

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

ENGINEERING SERVICES - CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between **[SUCCESSFUL BIDDER]**, hereinafter called the Engineer, and the **CITY OF GRAND ISLAND, NEBRASKA**, hereinafter called the City.

WITNESSETH:

THAT, WHEREAS, in accordance with law, the City has caused contract documents to be prepared and an advertisement calling for proposals to be published for *PLATTE GENERATING STATION BOTTOM ASH SYSTEM UPGRADES*; and

WHEREAS, the City, in the manner prescribed by law, has evaluated the proposals submitted, and has determined the aforesaid Engineer to be the responsible proposer, and has duly awarded to the said Engineer a contract therefore, for the sum or sums named in the Engineer's proposal, portions thereof being attached to and made a part of this contract.

NOW, THEREFORE, in consideration of the compensation to be paid to the Engineer and of the mutual agreements herein contained, the parties have agreed and hereby agree, the City for itself and its successors, and the Engineer for itself, him/herself, or themselves, and its, his, or their successors, as follows:

ARTICLE I. That the following documents shall comprise the Contract, and shall together be referred to as the "Agreement" or the "Contract Documents";

1. This Contract Agreement.
2. Agreement for Engineering Services between the City of Grand Island and [Engineering Company]
3. City of Grand Island's Request for Proposals.
4. [Engineering Company's] Proposal dated [date].
5. City Council Resolution [resolution number] dated [date].

In the event of any conflict between the terms of the Contract Documents, the provisions of the document first listed shall prevail.

ARTICLE II. That the Engineer shall provide the services set forth in this agreement and the attachments thereto in accordance with the normal degree of care and skill of other reputable professionals providing similar services on similar projects of like size and nature for this area;

ARTICLE III. That the City shall pay to the Engineer for the performance of the work embraced in this contract and the Engineer will accept as full compensation therefore the sum (subject to adjustment as provided by the contract) of **[DOLLAR AMOUNT] (\$00.00)** for all services and work covered by and included in the contract award and designated in the foregoing Article II; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

The total cost of the Contract includes:

Base Bid:	\$.00
	\$	<u>.00</u>
Total	\$.00

Contractor Option _____

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

ARTICLE IV. The Engineer hereby agrees to act as agent for the City. The invoice for Engineer's services will be paid after approval at the next regularly scheduled City Council meeting and occurring after departmental approval of invoice. The City Council typically meets the second and fourth Tuesday of each month. Invoices must be received well in advance of Council date to allow evaluation and processing time.

ARTICLE V. The Engineer agrees to comply with all applicable State fair labor standards in the execution of this contract as required by Section 73-102, R.R.S. 1943. The Engineer further agrees to comply with the provisions of Section 48-657, R.R.S. 1943, pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. During the performance of this contract, the Engineer and all sub-Engineers agree not to discriminate in hiring or any other employment practice on the basis, of race, color, religion, sex, national origin, age or disability. The Engineer agrees to comply with all applicable Local, State and Federal rules and regulations. The Engineer agrees to maintain a drug-free workplace policy and will provide a copy of the policy to the City upon request. Every public Engineer and his, her or its sub-Engineers who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

GRATUITIES AND KICKBACKS

City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

[SUCCESSFUL PROPOSAL COMPANY]

By _____ Date _____

Title _____

CITY OF GRAND ISLAND, NEBRASKA

DRAFT

By _____ Date _____
Mayor

Attest: _____
City Clerk

The contract is in due form according to law and hereby approved.

Attorney for the City Date _____

PGS Bottom Ash System Upgrades

REQUEST FOR PROPOSAL General Specifications

The Proposal shall be in accordance with the following and with the attached DETAILED SPECIFICATIONS.

All prices are to be F.O.B. Grand Island, Nebraska. **All prices shall be firm, and shall include all sales and use taxes as lawfully assessed under laws and regulations of the State of Nebraska.**

Proposals shall include the following on the **outside** of the mailing envelope: "**Proposal for Platte Generating Station Bottom Ash System Upgrades**". All proposals must be signed and dated to be accepted. Proposals shall be addressed to the attention of Tylor Robinson, Power Plant Superintendent. All proposals submitted by mail must include **four (4) complete copies**. The specification is also available at www.grand-island.com under *Business, Bids & Request for Proposals- Bid Documents*. Bidding documents, plans, and specifications for use in preparing and submitting bids online may be downloaded from the QuestCDN website, www.QuestCDN.com for a \$30 fee. Bids must be uploaded to the QuestCDN website or received at the City Clerk's office herein listed below before the specified time of Tuesday, November 2, 2021 at 4:00 p.m. for evaluation purposes.

Mailing Address: RaNae Edwards, City Clerk
City Hall
P. O. Box 1968
Grand Island, NE 68802-1968

Street Address: RaNae Edwards, City Clerk
City Hall
100 E. First Street
Grand Island, NE 68801

Each bidder shall submit with their bid a certified check, a cashier's check or bid bond payable to the City Treasurer in an amount no less than five percent (5) of the bid price which shall guarantee good faith on the part of the bidder and the entering into a contract within twenty (20) days, at the bid price, if accepted by the City. Bid bonds must be issued by surety companies authorized to do business in the State of Nebraska. When submitting bid online, the bid bond shall be uploaded to the QuestCDN website. When mailing or delivering bid, your certified check, cashier's check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the original bid. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information in clearly marked and separate envelopes may result in your bid not being opened or considered.

Any Proposal received after the specified date will not be considered. No verbal Proposal will be considered.

Proposals will be evaluated by the Purchaser based on Contractor's response to the proposal, experience of the company and project personnel, commercial terms, and pricing to perform the project required.

The successful contractor will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Contractor shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

The invoice for Contractor's services will be paid after approval at the next regularly scheduled City Council meeting and occurring after departmental approval of invoice; the City Council typically meets the second and fourth Tuesday of each month. Invoices must be received well in advance of City Council date to allow evaluation and processing time.

The City reserves the right to reject any or all proposals and to select the proposal, which is deemed to be in the City's best interest, at its sole discretion.

All Proposals shall be valid for at least thirty (30) working days after the Proposal deadline for evaluation purposes.

All Proposals must be signed and dated to be accepted. If exceptions and/or clarifications are noted to the bid, those exceptions must be fully explained on a separate sheet, clearly marked, and included with the Proposal. Any changes that are found made to the original specifications, other than Owner generated Addendums, would result in your bid not being considered. Please contact Tylor Robinson at 308-385-5495, for questions concerning this specification.

When awarded, the successful Bidder shall file with the OWNER Performance and Payment Bonds in the full amount (100 percent) of the Contract price, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the Work under this Contract, and to cover all guarantees against defective workmanship or materials, or both, for a period of 1 year after the date of final acceptance of the Work by the OWNER. The Surety furnishing these bonds shall have a record of service satisfactory to the OWNER, be authorized to do business in the State where the OWNER's project is located and shall be named on the current list of approved Surety Companies, acceptable on Federal bonds as published by the Audit Staff, Bureau of Accounts, U.S. Treasury Department.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond

PGS Bottom Ash System Upgrades

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PGS Bottom Ash System Upgrades - RFP

Bottom Ash System Engineering and Components Grand Island Utilities Department - Detailed Specification

1.0 PROJECT DESCRIPTION

The Grand Island Utilities Department at Platte Generating Station is requesting proposals to upgrade the existing bottom ash handling system to comply with changes in regulation.

1.1 BACKGROUND

Platte Generating Station uses a 765,000 lbs. per hour steam generator powered by coal combustion to generate power. Left over ash from the coal combustion falls to the bottom of the boiler and is removed by the wet bottom ash handling system.

The bottom ash handling system consists of a water filled, bottom ash storage hopper from which the bottom ash is discharged through feeder hoppers to jet pumps. The jet pumps convey the bottom ash through a discharge piping system to dewatering bins where the bottom ash is separated, and the water is decanted to a settling tank and surge tank.

The existing bottom ash system designed by United Conveyor Corp. (UCC) was commissioned in 1982. The current bottom ash system discharges 100 gpm to the plant outfall. Changes in plant regulation will not allow the plant to discharge bottom ash transport water. The existing bottom ash system will need to be upgraded to accommodate the changes in regulation. Upgrades to the system will include water treatment, surge tank level control, and secondary containment.

1.2 LOCATION

The Platte Generating Station is located at 1035 W. Wildwood Drive, two (2) miles south of Grand Island, Nebraska. The plant entrance is located two (2) miles south of U.S. Highway 34 and 1 ½ miles east of U.S. Highway 281.

1.3 CONTACT

Question regarding this specification may be directed to:

Tylor Robinson
Platte Generating Station
1035 W. Wildwood Dr.
Grand Island, NE 68801
Ph. (308) 385-5495
trobinson@giud.com

2.0 SCOPE

The Contractor shall furnish specified material and pricing for turnkey services described herein to modify the existing bottom ash system to operate as a closed loop recirculating system in accordance with the effluent limitation guidelines as set by the EPA. The Contractor shall provide services and materials as described herein.

2.1 GENERAL

System component repairs shall be provided to restore original performance in areas as described in section 2.2.1. System modifications shall be provided to increase evaporation and maintain water temperature necessary to run the system consistently. Water treatment systems shall be added to maintain neutral pH and reduce total suspended solids in the surge tank. Additional water treatment shall be provided to prevent the growth of microorganisms.

A recirculating water balance diagram shall be submitted. Changes shall be made to the existing pump sealing systems if required to maintain an equal balance.

The Contractor shall design and supply a secondary containment that can be used for bottom ash system water storage as required during normal operation and maintenance events. The secondary containment shall be the most economical design for its intended use. The design shall include the capability to return water into the bottom ash system or transfer water to the municipal sanitary sewer system.

2.2 SYSTEM MODIFICATIONS

An evaluation of technology alternatives conducted by the City of Grand Island has determined that the most cost-effective alternative for becoming ELG compliant is to operate the existing hydraulic recirculating system with pH adjustment and as-needed purge to a secondary containment before being discharged to the City's sanitary sewer system.

The Contractor shall be responsible for the design and supply of the modifications and repair components to Platte Generating Stations existing bottom ash handling system. The system design shall include detailed drawings of assembly and repair. The system design shall be complete with detailed fittings, valves, drain connections, piping, pipe clamps, controls, etc., required for reliable operation.

The system design shall include, but not be limited to equipment sizing, material types, system performance calculations, and design assumptions. The complete system design and operating instructions shall meet the requirements set forth in the effluent limitations guidelines.

The Contractor shall update the water mass balance of the system with variations of the proposed modifications. The Contractor shall analyze the benefits of system changes. The Contractor shall provide an updated water usage chart with the proposed design upgrades.

2.2.1 TANK REPAIR

The Contractor shall provide all documentation and installation instructions for making repairs and modifications to the existing dewatering bins and settling tank components.

These components shall include:

- *Dewatering Bins*
 1. Target Plates and Skirts
 2. Baffle Rings and Brackets
 3. Overflow Weir
- *Settling Tank*
 1. Overflow Weir

The Contractor shall provide pricing for the following dewatering bin repair and replacement components. The components shall meet or exceed original design. The required components shall include, but not be limited to:

QUANTITY	DESCRIPTION	OEM PART NUMBER
2	Baffle Ring	23405
2	Target Plate and Skirt	5-4920-443-01XX-36-096-
3	Overflow Weir Repair	Custom Repair Part
2	Rubber Boot	2304

2.2.2 LEVEL CONTROL SYSTEM

The Contractor shall design and install a level control system that maintains the operating level in the surge tank. The level control system shall include a Yokogawa pressure transmitter to monitor the water level in the surge tank to prevent overflowing the system and be used to control make-up flow into the surge tank as required to maintain the original design minimum level. A new, automated make-up water supply valve shall be provided. The level control system shall be integrated into the existing bottom ash control system.

2.2.3 CHEMICAL INJECTION

The Contractor shall provide detailed design and supply of equipment for a chemical injection system to maintain water quality throughout the bottom ash system. The chemical injection system shall control water chemistry to limit corrosion, and buildup of biological and ash material on bottom ash system surfaces. The detailed design shall include pipe sizing, injection points, and materials of construction. Heat tracing and insulation shall be specified for all chemical injection piping using a design temperature of -10°F.

The chemical injection system shall include injection pumps for water treatment. The injection systems shall be skid assemblies with required secondary containment for spill prevention. Injection systems required to maintain system pH shall be redundant. The injection skids shall be located inside a conditioned enclosure adjacent to the existing structures. Chemical totes shall be located inside a conditioned enclosure to prevent freezing during cold weather. Chemical totes shall be arranged on a secondary containment system. The chemical totes shall be capable of being exchanged by forklift. Chemical storage quantities shall be monitored by the existing bottom ash control system.

The operation of the chemical feed pumps shall be controlled by a local controller. The local controller shall receive indication of the water contamination levels from the existing bottom ash control system. Indication of the water pH shall be taken from sensors supplied by the Contractor at a minimum of two (2) locations within the system. The feed pump local controller shall provide indication of the chemical injection rates to the existing bottom ash control system.

2.2.4 PUMP SEALS

The bottom ash system currently uses plant auxiliary water for pump seal water. The Contractor shall provide a revised seal arrangement requiring minimal or no plant auxiliary water as pump seal water or using recirculated water as pump seal water. Pump seals shall be rated for the anticipated process water chemistry and total suspended solids. The revised pump seal system shall be required for the following pumps:

- *Low Pressure Ash Sluice Pumps*
- *Flushing Ash Sluice Pumps*
- *Settling Tank Recirculating Pumps*
- *Surge Tank Recirculating Pumps*

2.2.5 SECONDARY CONTAINMENT

The Contractor shall propose a design and supply a secondary containment system that can be used during maintenance periods to empty the surge and settling tanks. Pumping system(s) shall be sized and added for the following uses:

- *Transport the water from the bottom ash system to the secondary containment within 24 hrs.*
- *Return the water stored in the secondary containment to the bottom ash system within 24 hrs.*
- *Transport the water from the secondary containment to the Municipal Sanitary Sewer System via a new discharge line approximately 6000 ft. long within 24 hrs.*

The routing and supply of piping between the secondary containment and the existing bottom ash system shall be included. The routing and supply of the emergency discharge line shall be in the responsibility of the Owner scope. The secondary containment system shall be used to hold and store bottom ash system water as required during normal operation, outages, and maintenance cycles, including bottom ash system outage wash operations. The Contractor will be responsible for sizing and specifying all associated equipment.

2.2.6 CONTROL SYSTEM

The contractor shall modify the existing system of programmable logic controllers (PLCs) and associated input/output hardware to control process equipment and serve as the interface to field devices. The new control system additions shall integrate with the existing control system and be built to the same standards and design. All equipment within the enclosure shall be laid out in a logical and accessible manner.

The contractor shall provide a remote human machine interface (HMI), including application platform, user interface, data archiving, reporting, and alarm management capabilities. Remote interfaces shall be located in the settling tank enclosure and ash unloading area. The interface shall be designed to be panel mounted. The terminal shall be mounted horizontally in a door at a height suitable for most operators. The HMI shall support windows-based operating system with the web browsing capability and support a remote desktop connection. The interface shall be a 19 in. color touchscreen, Allen-Bradley model 2711P-T19C22D9P or approved equal. Protective overlays, Allen-Bradley 2711P-RGT19P, shall be provided and installed to protect touchscreen from plant contaminants. To protect the systems operation, all HMI adjustable set points and alarm disables shall be password protected.

A switched control station shall be located at the top of the dewatering bins to control the flow of washdown water which is used after each dewatering bin dump.

The PLC shall totalize runtimes on all system pumps; current day, previous day and total runtimes shall be displayed on the HMI.

The PLC shall monitor and totalize the flow added to the system from the cooling tower blowdown, auxiliary water system, and bottom ash water discharge. The cooling tower blowdown line has an existing flow transmitter which will be reused. The Contractor shall supply Yokogawa flow transmitters for the auxiliary water system and bottom ash water discharge (to be located on the new emergency discharge line to the sewer). The HMI shall display current day, previous day, and total flow.

Alarms shall be programmed into the logic to provide indication of device and sequence failure. All alarm conditions shall delay a set amount of time before they indicate an alarm on the HMI. All alarm delays shall be adjustable from the HMI. Operators shall have the ability to disable and acknowledge all alarms individually from the HMI. Disabled and acknowledged alarms shall be indicated on the HMI. All analog signals shall have signal fail alarms to indicate an out-of-range signal.

The HMI shall provide trend screens to display recorded analog values. The trends shall display a minimum of one week worth of data. Trends shall include but not be limited to the following signals: pH, chemical injection rates, surge tank level, cooling tower blowdown flow, aux water flow, discharge flow.

2.2.7 ENGINEERING DESIGN AND PROCUREMENT DOCUMENTATION

The Contractor shall provide a complete set of engineered plans and procurement documents needed to complete the work as described herein. The creation of plans and engineering documents shall be completed under the direct supervision of a Professional Engineer licensed in the State of Nebraska.

The system design shall include detailed drawings of assembly and repair. The system design shall be complete with detailed fittings, valves, drain connections, piping, pipe clamps, controls, etc., required for reliable operation.

The system design shall include, but not be limited to equipment sizing, material types, system performance calculations, and design assumptions. The complete system design and operating instructions shall meet the requirements set forth in the effluent limitations guidelines.

The Contractor will be responsible for preparing all documentation and soliciting bidders to complete any accepted proposals. The Contractor shall prepare all documentation required to solicit bids for installation and commissioning system modifications in accordance with Grand Island City Code.

2.3 MANUFACTURER SERVICE REPRESENTATIVE

The Contractor shall furnish a competent service representative who is factory trained and experienced in the installation and operation of the equipment herein specified to supervise construction of the system described herein. The representative shall be required to be on site during initial operation and tuning of the systems described herein. The Contractor shall include 20 days on-site (8 hours per day, Monday-Friday) with daily travel and living expenses and two (2) round trips. The Contractor's field service rates shall be provided and used for any additional requests or required round trips or days on-site.

2.3.1 OPERATION AND TRAINING

The service representative shall fully instruct the plant operating personnel in the operation, care, and maintenance of the modified bottom ash handling equipment. The Contractor shall include two (2) days on-site (8 hours per day, Monday-Friday) with daily travel and living expenses and two (2) round trips. The Contractor's field service rates shall be provided and used for any additional requests or required round trips or days on site.

2.4 BID SOLICITATION

The Contractor shall use bid documents prepared within this scope of work to solicit bidders and finalize all estimated construction pricing. All bids shall be evaluated and accepted by the owner. The bid solicitation for materials and services shall be in accordance with the Grand Island City code and executed based on the rates agreed upon as described herein.

2.5 CONSTRUCTION

The Contractor will be responsible for managing and oversight of the Construction as described herein. The Contractor shall report directly to the Owner at regularly scheduled meetings and job briefings.

The Contractor shall make periodic visits to the site to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents. The Contractor shall be responsible for ensuring the completed project will conform to the requirements of the Contract Documents.

The Contractor shall provide general information that is available as to the best estimate of schedule of construction as furnished to him by the Contractors involved. The Contractor shall update the schedule weekly.

2.6 SCHEDULE

The Contractor shall propose a detailed schedule with a substantial project completion of **October 31, 2022**.

2.7 PERMITTING

The Contractor shall be responsible for obtaining a Construction permit from the Nebraska Department of Environment and Energy. All regulatory permit changes and applicable construction documents shall be submitted by the Contractor on behalf of the Owner per NDEE title 123.

Facility Plans, engineering reports, plans, and specifications for wastewater works will be prepared by professional engineers registered to practice in the State of Nebraska and be properly sealed, signed and dated. Facility plans for WWTF will be submitted to the Department for review at least 60 days prior to the initiation of design work.

2.8 PERFORMANCE GUARANTEES

The Contractor shall guarantee that the modified existing system will operate as a closed loop recirculation system in compliance with the EPA effluent limitation guidelines by **July 1, 2023**. The modified system shall maintain a water quality that will effectively recirculate through the bottom ash system.

3.0 BIDDING

The Contractor shall include in the bid firm pricing for design and supply of specified materials and systems described herein. The contractor shall include a firm not to exceed cost of all construction associated with implementing the changes described herein. The bid shall contain a cost break down of line items for system modifications in accordance with Section 3.5. Including, but not limited to all expenses, equipment, labor, mobilization and demobilization, and subcontractors. Any portions of the project which may benefit to bid once engineering is complete should be listed as such and include the budgeted cost to later be charged to the project as cost plus contractor overhead. All bids are to be presented to the owner.

Bids will be evaluated by the Owner based on price, schedule, quality, economy of operation, experience of contractor, and responsiveness to specification. The owner reserves the right to accept portions of the bid with disregard to the total bid amount. The owner reserves the right to reject any or all bids or waive informalities and to accept whichever bid that may be in the best interest of owner, at its sole discretion. **Bids must be received by 4:00 P.M. Tuesday, November 2nd, 2021.**

Bidder is solely responsible for obtaining any clarifications to this specification as may be required for the Bidder to submit an accurate and complete bid proposal.

3.1 SITE VISIT

A site visit prior to proposal submittal is **REQUIRED**. All contractors will be required to visit the plant site to ensure familiarity with the project requirements. Site visits may be arranged via the contact information listed herein. A site visit form shall accompany the bid documents.

3.2 SCHEDULE

The Contractor shall provide with the proposal a detailed schedule reflecting all key activities with sufficient information to demonstrate the means of completing the work in the allotted period. The schedule shall also reflect the hold points for inspections and repairs.

3.2.1 COORDINATION

The Contractor shall be responsible for coordination of this work with all crafts, subcontractors, manufacturer's representatives, and Owner's representative.

3.2.2 TIME OF COMPLETION

The Contractors schedule shall be coordinated to insure a substantial completion of October 31, 2022.

3.3 DESIGN INFORMATION

The Contractor shall provide a detailed description of system modifications including process operations, material types, piping schedules, instrument and control schedules, and capacities.

Contractor shall have a 30% and 90% design review with the Owner. No materials are to be ordered prior to 30% design unless approved by Owner.

The Contractor shall update the water mass balance of the system with variations of the proposed modifications. The Contractor shall analyze the benefits of system changes. The Contractor shall provide an updated water usage chart with the proposed design upgrades.

3.4 PROPOSED DRAWINGS AND MATERIALS

The Contractor shall provide drawings and a bill of materials that will detail proposed modifications to the existing system. The drawings will be used in the owner's evaluation of the proposal.

3.5 ESTIMATED COSTS

The Contractors bid shall include a firm cost breakdown in accordance with Section 2.2 System Modifications and Section 2.3 Manufacturer Service Representative. The bid shall include all proposed materials and engineering services. The Bid shall provide firm design and supply pricing for the following line items at minimum:

- *Tank Repair*
- *Level Control System*
- *Chemical Injection*
- *Pump Seals*
- *Secondary Containment*
- *Control System*
- *Engineering Design and Procurement Documentation*
- *Service Representative*

The Contractor's bid shall include a firm not to exceed price for all estimated costs associated with a balance of plant scope of construction and material as described herein, Section 2.4 through 2.8. The Contractor shall use bid documents prepared within this scope of work to solicit bidders and finalize the price. All bids shall be evaluated and accepted by the Owner.

3.6 RATES

Compensation to the Contractor for all not to exceed price estimates will be calculated as an addition or deduction from the proposed not to exceed itemized price, based upon such written terms as may be established between parties, either (a) by an acceptable lump sum proposal of the Contractor, or (b) on a cost-plus limited basis not to exceed specified limit, or (c) on a basis of the unit prices as stated in these specifications where such unit prices apply. In the event that none of the foregoing methods are agreed upon with the Contractor, the Purchaser may perform the work.

The Bid shall include, as a separate T&M rate attachment, firm unit pricing for all labor, equipment, **and expenses reflecting charges to be used in billing the T&M portions of the work as well as for making any** adjustments that may be required for new work scope additions, additional services other than what is required in this specification or reductions in the same.

The not to exceed portion of this bid shall be executed based on the rates provided by the Contractor as described herein up to the not to exceed amount. Determination of cost-plus work shall be based upon actual cost of labor and material plus a negotiated rate of actual Contractor cost for overhead, profit, contingencies, etc.

3.6.1 Terms and Conditions

Provide all other proposed terms and conditions which will be in effect during the performance of the work as a separate attachment **with the bid**. Any exceptions the bidder wishes to take regarding the Owners specifications and contract documents must be submitted **with the bid**.

Time is of the essence in the evaluation of proposals, the execution of contract documents and/or issuance of a Purchase Order for the execution of the work. Submittal of bids that include terms and conditions unacceptable to the Owner, or that lack the information and clarity required by these specifications may be subject to rejection at the sole discretion of the Owner.

A single contract will be awarded for all work included in this specification.

3.7 CHANGE ORDERS

The Contractor shall submit a formal process for addressing work that may arise but is not described herein. All change orders shall be addressed with a detailed scope of work and approved before proceeding with scope of extra work.

Contractor shall be required to maintain accurate job logs describing work performed by each crew throughout each day and daily time sheets detailing all work performed and expenses incurred **in the same format as the bid detail submittal**. Daily time sheets shall identify all individuals by name, craft and all hours worked on each portion of the work. Such job logs and time sheets shall accurately account for all man-hours with clear separation and identification of Time, equipment and Material as required accounting for the actual service hours and expenses. A sample timesheet shall be included in the bid to be approved by the owner's designated representative.

All change orders that will be billed on a cost-plus basis shall be in accordance with the agreed upon rates. The Contractor shall be transparent in billing and provide any original invoices used for cost-plus billing.

3.8 EXCEPTIONS

The purpose of this specification is to give detail on conditions under which the new equipment will operate, scope of Contract, quality of equipment required, standards used in determining its acceptability and similar data. Each bidder shall carefully read all requirements herein set forth and shall offer equipment and services which fully comply with these requirements or shall plainly set forth all points, features, conditions, specifications, etc., wherein the equipment offered does not meet these specifications. Such exceptions as are made shall be listed by section and subsection number and shall be marked in ink in the sections of these specifications. Exceptions shall be explained in detail in a letter accompanying the bid. References shall not be made to the bidder's Proposal for exceptions and supplementary terms. Failure to outline such exceptions will require the successful bidder to comply with these specifications.

3.9 BID EVALUATIONS

The proposals will be evaluated on the following criteria. Also indicated are the weighting factors which will be used in tabulating the evaluation scores.

- | | | | |
|----------------------------|-------|---------------------|-------|
| 1. Proposal Responsiveness | (x 2) | 4. Commercial Terms | (x 1) |
| 2. Project Schedule | (x 1) | 5. Estimated Costs | (x 1) |
| 3. Company Experience | (x 2) | 6. Rates Schedule | (x 1) |

The City of Grand Island Utilities Department is NOT tax exempt and is subject to 7.5% sales tax. See the Nebraska Department of Revenue web site at www.revenue.state.ne.us for contractor's tax information.

4.0 QUALIFICATIONS

Bids will be received only from qualified bidders. A bidder will be considered qualified if he is a recognized manufacturer of the type of equipment herein or is a consulting engineering firm with experience in the design and construction of the type of equipment described herein. Qualified bidders shall have, in successful operation, a minimum of five (5) bottom ash handling systems of equal or greater size than the systems specified herein which are in service at central power stations with a period of at least two (2) years of satisfactory operating experience. The bidder shall have facilities in the United States.

The Contractor shall be a firm specializing in the provision of services as outlined within this scope for large-scale utility bottom ash material handling systems used in the electric power industry. The Contractor shall

substantiate its experience through the submittal of three (3) similar projects' **reference list with the bid**. The Contractor will be expected to perform the work without the assistance of Platte Generating Station personnel or tools and comply with plant safety regulations and equipment lockout/tag out procedures.

Failure to provide this information may, at the option of the purchaser, result in the rejection of the bid.

4.1 SERVICE REPRESENTATIVE

The Contractor shall provide well qualified supervisor(s) and a Job Superintendent who will fully direct all field operations for the duration of the project, serve as liaison to the Owner's designated representatives, be fully authorized to make any and all decisions affecting the work in the field and coordinate activities between the Contractor and its subcontractors, if any. A summary of the experience of the Superintendent proposed for this project shall be **provided with the bid**.

5.0 SAFETY

The Contractor is required to follow their OSHA regulations for work in areas that are contaminated with fly ash and for areas that may be considered as confined spaces. NOTE: All contractors must submit **with the bid** a copy of their OSHA compliant Confined Space Procedure and Respiratory Protection Procedure. The Contractor will be required to provide proof that workers have successfully completed respiratory fit testing and pulmonary function testing and have been trained for confined space entry.

The Contractor shall be responsible for compliance with all safety practices as required by the regulatory agencies governing the Contractor's operations as well as any and all safety requirements of the Contractor's organization and shall submit historical evidence of such compliance. All personnel working on site will be required to participate in the plant's safety orientation prior to performing any work on site at PGS.

The plant has an equipment lockout/tag out procedure to prevent the unauthorized starting of motors and the unauthorized movement of valves and dampers. The Contractor is required to use the procedure and add its own locks/tags on top of the plant lock/tags if required. *Removal of plant locks/tags is not allowed and is cause for removal from the plant site.*

6.0 INSURANCE

The contractor shall comply with the attached City's insurance requirements

7.0 PERFORMANCE AND PAYMENT BOND

The successful Bidder shall file with the OWNER Performance and Payment Bonds in the full amount (100 percent) of the Contract price, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the Work under this Contract, and to cover all guarantees against defective workmanship or materials, or both, for a period of 1 year after the date of final acceptance of the Work by the OWNER. The Surety furnishing these bonds shall have a record of service satisfactory to the OWNER, be authorized to do business in the State where the OWNER's project is located and shall be named on the current list of approved Surety Companies, acceptable on Federal bonds as published by the Audit Staff, Bureau of Accounts, U.S. Treasury Department.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond.

8.0 DRAWINGS AND SITE INFORMATION

A selection of drawings has been provided with the bid package for reference only. Additional drawings are available for review at Platte Generating Station office. The Contractor is responsible for making such pre-bid site visits as required to obtain additional details for bidding and execution of the work and for clarification of any questions or concerns the bidder may have related to the work scope and site conditions.

ATTACHMENTS:

Files that contain relevant information can be found at the following link.

https://giud-my.sharepoint.com/:f:/p/trobinson/EtWbcxxHnLhHtxh4aFZx_h8BLxRVWxPkbKr52FhvUJMJxg?e=AzqzdV

REQUEST FOR PROPOSAL - SITE CONDITIONS

PLATTE GENERATING STATION BOTTOM ASH SYSTEM UPGRADES

Site Visit: Bidders shall visit the site in order to inform themselves of the conditions under which the work is to be performed, concerning the site of the work, the nature of the existing facilities, the obstacles which may be encountered, the sequence of the work, and all other relevant matters concerning the work to be performed. No extra compensation shall be allowed by reason of the failure of such bidder to fully inform themselves of said site conditions prior to the bidding. The Contractor shall employ, so far as possible, such methods and means in the carrying out of their work as will not cause any interruption or interference with the City's operations and any other contractors.

A site visit may be arranged by contacting Tylor Robinson at (308) 385-5495.

Signature of person visiting site: _____

Signature of Utilities personnel witnessing visit: _____

Date of Visit: _____

MINIMUM INSURANCE REQUIREMENTS
CITY OF GRAND ISLAND, NEBRASKA

The successful bidder shall obtain insurance from companies authorized to do business in Nebraska of such types and in such amounts as may be necessary to protect the Bidder and the interests of the City against hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations and completed operations. Failure to maintain adequate coverage shall not relieve Bidder of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

1. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

This insurance shall protect the Bidder against all claims under applicable State workers compensation laws. This insurance shall provide coverage in every state in which work for this project might be conducted. The liability limits shall not be less than the following:

Workers Compensation	Statutory Limits
Employers Liability	\$100,000 each accident
	\$100,000 each employee
	\$500,000 policy limit

2. BUSINESS AUTOMOBILE LIABILITY

This insurance shall be written in comprehensive form and shall protect the Bidder, Bidder's employees, or subcontractors from claims due to the ownership, maintenance, or use of a motor vehicle. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 Combined Single Limit
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3. COMPREHENSIVE GENERAL LIABILITY

The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 each occurrence
	\$1,000,000 aggregate

4. UMBRELLA LIABILITY INSURANCE

This insurance shall protect the Bidder against claims in excess of the limits provided under employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$1,000,000 each occurrence
	\$1,000,000 general aggregate

5. ADDITIONAL REQUIREMENTS

The City may require insurance covering a Bidder or subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Bidder or subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Bidder of all obligations under the Contract.

The Bidder shall provide and carry any additional insurance as may be required by special provisions of these specifications.

6. CERTIFICATE OF INSURANCE

Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this Contract. **The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the Bidder cannot have the "endeavor to" language stricken, the Bidder may elect to provide a new certificate of insurance every thirty (30) days during the contract. Bidder shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.**