



City of Grand Island

Tuesday, February 25, 2020

Council Session

Item G-11

#2020-49 - Approving Substation Transformer Maintenance

Staff Contact: Tim Luchsinger, Stacy Nonhof

Council Agenda Memo

From: Tim Luchsinger, Utilities Director
Stacy Nonhof, Interim City Attorney

Meeting: February 25, 2020

Subject: Substation Transformer Maintenance

Presenter(s): Tim Luchsinger, Utilities Director

Background

The Grand Island Electric System utilizes a 115,000-volt transmission loop that connects eight substations around the City. Each substation contains one or two large transformers that convert this voltage down to the distribution level of 13,800 volts. These transformers have an automatic voltage adjustment mechanism that requires periodic inspection and maintenance. Additionally, the condition of the entire transformer can be assessed with electrical tests as good practice to ensure reliability of our system.

This project includes inspection and maintenance of our voltage regulators on our substation transformers as well as electrical testing those transformers and the large transformers associated with our power generation units.

Discussion

Bids were received by the City on February 5, 2020 for the contract labor and materials for the Substation Transformer Maintenance Package. The six bids received were:

Bidder	Bid Price
Power Systems Diagnostics Ozawkie, Kansas	\$179,157.35
Delta Star, Inc. Forest, Virginia	\$191,800.00
TransFluid Services Houston, Texas	\$261,762.50
Electro-Test & Maintenance, Inc. Rapid City, South Dakota	\$286,250.00
SPX Transformer Solutions, Inc. Waukesha, Wisconsin	\$355,042.79
Electric Power Systems	

The bid from Power System Diagnostics specified that parts required to complete the project were not included and did not specify how much the parts would cost. The bid amount from Delta Star, Inc., did not include the cost of the parts and specified a potential additional cost of \$281,025.00 for parts as part of their bid. The bid from Transfluid Services appears to be higher but does include the cost of parts and labor together with no additional costs in their bid. The bid from Transfluid Services meets all requirements and is under the engineer's estimate of \$450,000.00. The noted exception from Transfluid Services was that they work after hours on-site which is agreeable. Transfluid Services has provided a list of similar projects being completed and is experienced.

Based on a review of the bids received, the Transfluid Services bid of \$261,762.50 is recommended by the Utilities Department as the lowest compliant bid.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to a future date
4. Take no action on the issue

Recommendation

City Administration recommends that the Council approve the bid from Transfluid Services, of Houston, Texas, for the Substation Transformer Maintenance Package in the amount of \$261,762.50.

Sample Motion

Move to approve the bid from Transfluid Services, for the Substation Transformer Maintenance Package in the amount of \$261,762.50.



Stacy Nonhof, Purchasing Agent

*Working Together for a
Better Tomorrow, Today*

BID OPENING

BID OPENING DATE: February 5, 2020 at 2:00 p.m.
FOR: Substation Transformer Maintenance Package
DEPARTMENT: Utilities
ESTIMATE: \$450,000
FUND/ACCOUNT: 52001092-59200
PUBLICATION DATE: January 16, 2020
NO. POTENTIAL BIDDERS: 7

SUMMARY

Bidder:	<u>Power Systems Diagnostics</u> Ozawkie KS	<u>Delta Star, Inc.</u> Forest VA
Bid Security:	Granite Re, Inc.	Fidelity & Deposit Company
Exceptions:	Noted	None
Bid Price:	\$179,157.35	\$191,800.00
Bidder:	<u>Electro-Test & Maintenance, Inc.</u> Rapid City SD	<u>Electric Power Systems</u> Kansas City MO
Bid Security:	Merchants Bonding Co.	Travelers Casualty and Surety Company
Exceptions:	Noted	None
Bid Price:	\$286,250.00	\$494,795.00
Bidder:	<u>TransFluid Services</u> Houston TX	<u>SPX Transformer Solutions, Inc.</u> Waukesha WI
Bid Security:	United States Fire Ins. Co.	Western Surety Company
Exceptions:	Noted	Noted
Bid Price:	\$261,762.50	\$355,042.79

cc: Tim Luchsinger, Utilities Director
Jerry Janulewicz, City Administrator
Stacy Nonhof, Purchasing Agent

Pat Gericke, Utilities Admin. Asst.
Patrick Brown, Finance Director
Travis Spiehs, Electrical Engineer

P2182



Substation Transformer Maintenance Package

Phelps Control Center
700 E. Bischeld Street
Grand Island, NE

Contact
City of Grand Island Utilities Department
Travis Spiehs, Electrical Engineer
(308) 385-5460 x1144
travis.spiehs@giud.com

Date Issued: January 13, 2020
Date Bid Due: February 5, 2020

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SECTION A

ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS
FOR
Substation Transformer Maintenance Package

Sealed bids will be received at the **Office of the City Clerk, 100 East First Street, Grand Island, NE 68801, until 2:00 pm. (Local Time), February 5, 2019** for Substation Transformer Maintenance Package, FOB the City of Grand Island. Quotes will be publicly opened at this time at the Office of the City Clerk, 100 East First Street, Grand Island, NE. Bids received after the specified time will be returned unopened to sender.

The specifications, and any addenda, may be viewed on-line at www.grand-island.com under Business-Bid Calendar. Bids may also be submitted online via the Quest CDN website, www.QuestCDN.com for a thirty dollar (\$30) fee.

Plans and specifications are on file at the City of Grand Island, Phelps Control Center, 700 East Bischeld Street, Grand Island, NE. (308)385-5460 x1144. Bids shall be submitted on forms that will be furnished by the City.

Each bidder shall submit with their bid a certified check, cashiers check, or bid bond payable to the City Treasurer in an amount not 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. **Your certified check, cashiers check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid.** Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information in clearly marked and separate envelopes will result in your bid not being opened or considered. Bid bonds must be issued by surety companies authorized to do business in the State of Nebraska.

Bids will be evaluated by the purchaser based on price, delivery, quality, and adherence to specifications. Each bidder shall supply three (3) copies of the bid and equipment specifications. Failure to provide the correct number of copies will result in the bid being deemed nonconforming and not considered. The Purchaser reserves the right to reject any or all bids, to waive technicalities, and to accept whichever bid that may be in the best interest of the City.

No Company may withdraw its bid for a period of sixty (60) days after date of bid opening.

RaNae Edwards,
City Clerk

SECTION B

INSTRUCTIONS TO BIDDERS

**CITY OF GRAND ISLAND, NEBRASKA
INSTRUCTIONS TO BIDDERS**

EXCEPTIONS TO SPECIFICATIONS: Each bidder shall carefully check all requirements herein set forth and shall offer items which fully comply with these requirements or shall plainly set forth all points, features, conditions, specifications, etc., wherein their items offered do not meet these specifications. Such exceptions as are made shall be listed by page number in the following blanks and shall be marked in ink on the pages of these specifications. If additional space is required for exception explanation, please reference and attach a letter to bid. Reference shall not be made to other attachments for exceptions and supplementary terms. Failure to outline such exceptions as specifically stated herein will require the successful bidder to comply with these specifications. In case of conflict between the bid and these specifications, these specifications shall govern unless specific exceptions are listed by the bidder. Exceptions must be noted on the bid form.

SUBMISSION OF BIDS: All bids shall be submitted using the City's bid form. Bids shall **be addressed to the City Clerk** and plainly marked, "**Substation Transformer Maintenance Package**".

INSURANCE COVERAGE: The Contractor shall purchase and maintain at their expense as a minimum insurance coverage of such types and in such amounts as are specified herein to protect Contractor and the interest of Owner and others from claims which may arise out of or result from Contractor's operations under the Contract Documents, whether such operations be by Contractor or by any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. Failure of Contractor to maintain proper insurance coverage shall not relieve them of any contractual responsibility or obligation.

BASE BID: The bidder is expected to base their bids on materials and items complying fully with these specifications. In the event they name in their bid materials or items which do not conform, they will be responsible for furnishing materials and items which fully conform at no change in the bid price.

ALTERNATE BIDS: It is the desire of the Owner that the bidder base their bid price for this project on the written specifications. If an alternate bid or bids are submitted by a bidder, it is desired that they first submit a bid price as above described and then describe the alternate bid. Failure to do so may be reason for not extending any consideration to alternate bids.

BIDDER QUALIFICATION: Bids will be received only from qualified bidders. A bidder will be considered qualified if they are a recognized electric utility contractor and have experience in the construction of projects of equal or greater size than that specified herein. If requested, the bidder shall supply experience data. Such data will be used to assist in determining the qualifications of the bidder. Bidder must comply with all applicable Federal, State and Local rules and regulations.

CHECKS OR BID BONDS: Checks or bid bonds of the unsuccessful bidders will be returned when their bids have been rejected and not to exceed sixty (60) days from the date bids are opened. All bids shall remain in force for this 60-day period. The check or bid bond of the successful bidder will be returned when the Contracts are signed by both parties and necessary bonds supplied. Should the Purchaser make an award to a bidder who refuses to enter into Contract and furnish the required bonds within twenty (20) days after notification of acceptance, then the bid security which has been deposited with the Purchaser will be forfeited to the Purchaser as liquidated damages.

PERFORMANCE BOND: On award of the Contract, the successful Contractor shall furnish a Performance Bond which shall be in an amount equal to the full Contract price, guaranteeing faithful compliance with all requirements of the Contract Documents and complete fulfillment of the Contract, and payment of all labor, material and other bills incurred in carrying out this Contract. According to Nebraska Law, the surety company executing the Performance Bond must be authorized to do business in the State of Nebraska.

PAYMENT BOND: On award of the Contract, the successful Contractor shall furnish a Payment Bond which shall be in an amount equal to the full Contract price, guaranteeing protection of all persons supplying labor and materials to the Contractor or its subcontractors for the performance of the work provided for in the Contract. In accordance with Nebraska Law, the surety company executing the Payment Bond must be authorized to do business in the State of Nebraska.

TAXES: The City Utilities Department pays sales tax amounting to 5.5% State and 2.0% City; payment of 7.5% sales tax must be in the Contractor's bid. Contractor must pay any other tax which might be applicable.

REQUESTS FOR PAYMENT: The City of Grand Island will make payments only after approval at regularly scheduled City Council meetings. These meetings typically occur the second and fourth Tuesday each month. Requests for payment must be received no less than ten (10) working days prior to the designated meeting to allow time for proper review and consideration. Payments will only be made after final completion of the project to City's satisfaction unless otherwise stated in bidding documents.

REQUEST FOR INTERPRETATION: If any person contemplating submitting a bid for this Contract is in doubt as to the true meaning of any part of the specifications or other proposed Contract documents, they may submit to the Purchasing Department a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addendum duly issued and/or delivered to each person receiving a set of such documents. The addenda upon closing shall become a part of the Contract. The City will not be responsible for any other explanation or interpretation of the proposed documents.

ADDENDA: Any addendum to the specifications issued during the time allowed for preparation of bids shall be covered in the bid and shall become a part of the specifications. One copy of each addendum issued before the date of the letting will be sent to all bidders. One signed copy is to be returned immediately to the sender as acknowledgment of receipt.

TIME OF COMPLETION: Time of completion is the essence of this Contract, and all work shall be completed no later than May 15, 2020.

MODIFICATION OF BIDS: Bids may be modified or withdrawn by an appropriate document duly executed in the manner that a bid must be executed and delivered to the place where bids are to be submitted at any time prior to the final time set for receiving bids. Bidders may modify or withdraw bids by Fax communication at any time prior to the time set for receiving bids provided this instruction is positively identified. Any Fax modification should not reveal the amended bid price but should provide only the addition, subtraction or other modifications. A duly-executed document confirming the Fax modification shall be submitted within three (3) days after bids are opened.

BID DATA: Bidders shall submit bid documents and data by filling in the document and data sheets supplied by the Purchasing Department. The bid sheets shall be filled out legibly in ink to permit reproduction.

BIDDER SECURITY: Bidder security shall be enclosed in a separate envelope marked, "**BIDDER SECURITY / BID FOR SUBSTATION TRANSFORMER MAINTENANCE PACKAGE**" the envelope shall contain only a cashier's check, certified check or bidder's bond.

This separate envelope shall be attached to a sealed envelope containing the bid and any other bid materials. This second envelope shall be marked "**BID FOR SUBSTATION TRANSFORMER MAINTENANCE PACKAGE**" and be addressed to the "City Clerk." Bids of an incomplete nature or subject to multiple interpretations may, at the option of the Purchaser, be rejected as being irregular.

FINANCIAL STATEMENT: The bidder shall furnish upon request a complete financial statement signed by the bidder, if an individual, by all partners if the bidder is a partnership or, by the President or Secretary, if the bidder is a corporation.

EQUAL EMPLOYMENT OPPORTUNITY: The Contractor agrees that during the performance of this Contract not to discriminate in hiring or any other employment practice on the basis of race, color, religion, sex, disability, age or national origin, and to comply with Executive Order 11,246 of September 24, 1965, and the rules, regulations and relevant orders of the Secretary of Labor, and Chapter 20 of the Reissue Revised Statutes of 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 therefore. 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 there within, as an inducement for the award of a subcontract or order.

LOCAL CONDITIONS: Each bidder shall have an authorized representative visit the site of the work and thoroughly inform themselves of all conditions and factors which would affect the work and the cost thereof, including the arrangement and conditions of existing or proposed structures affecting or affected by the proposed work; the procedure necessary for maintenance of uninterrupted operation; the availability and cost of labor and facilities for transportation, handling, and storage of materials and equipment.

It must be understood and agreed that all such factors have been investigated and considered in the preparation of every bid submitted. No claims for financial adjustment to any Contract awarded for the work under these Specifications and documents will be permitted by the City, which are based on lack of such prior information or its effect on the cost of the work.

CORRESPONDENCE: Correspondence regarding drawings, instruction manuals, and other engineering data shall be sent to:

Attn: Travis Spiehs
City of Grand Island
Utility Department
P.O. Box 1968
Grand Island, NE 68802-1968
(308) 385-5460 x1144

LOCAL BIDDER PREFERENCE: In case of tied low bids, all other things being equal, preference shall be given in the following order:

1. To those bidders who manufacture their products within the limits of the City of Grand Island.
2. To those bidders who manufacture their products within the limits of the County of Hall.
3. To those bidders who package, process, or through some other substantial operation have employees and facilities for these purposes in the City of Grand Island.
4. To those bidders who package, process, or through some other substantial operation have employees and facilities for these purposes in the County of Hall.
5. To those bidders who maintain a bona fide business office in the City of Grand Island, whose products may be made outside the confines of the City of Grand Island.
6. To those bidders who maintain a bona fide business office in the County of Hall, whose products may be made outside the confines of the County of Hall.
7. To those bidders whose commodities are manufactured, mined, produced, or grown within the state of Nebraska and to all firms, corporations, or individuals doing business as Nebraska firms, corporations or individuals, when quality is equal or better and delivered price is the same or less than the other bids received.
8. To those bidders whose commodities are manufactured, mined, produced, or grown within the United States of America and to all firms, corporations, or individuals doing business as firms registered in states other than Nebraska when quality is equal or better and delivered price is the same or less than the other bids received.

SECTION C

CONTRACTOR'S BID FORM

Prepared by Jeremy Taylor
US Army (Ret)

City of Grand Island
Substation Transformer Maintenance Package

Transfluid Services INC.
Jeremytaylor@starkoll.com
Phone 902-759-2957

SUBSTATION TRANSFORMER MAINTENANCE PACKAGE

CITY OF GRAND ISLAND, NEBRASKA

CONTRACTOR'S BID

TO THE MEMBERS OF THE COUNCIL
CITY OF GRAND ISLAND
GRAND ISLAND, NEBRASKA

THE UNDERSIGNED BIDDER, having examined the plans, specifications, general and special conditions, other proposed contract documents, and all addenda thereto and being acquainted with and fully understanding (a) the extent and character of the work covered by this Bid, (b) the location, arrangement, and specified requirements for the proposed work, (c) the location, character, and condition of existing streets, roads, highways, railroad, pavements, surfacing, walks, driveways, curbs, gutters, trees, sewers, utilities, drainage courses and structures, and other installations, both surface and underground which may affect or be affected by the proposed work, (d) the nature and extent of the excavations to be made and the handling and re-handling of excavated materials, (e) the location and extent of necessary or probable dewatering requirements, (f) the difficulties and hazards to the work which might be caused by storm and flood water, (g) local conditions relative to labor, transportation, hauling and rail delivery facilities, and (h) all other factors and conditions affecting or which may be affected by the work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools and plans, to perform all necessary labor and supervision, and to construct, install, erect, equip and complete all work stipulated in, required by and in accordance with the contract documents and the plans, specifications and other documents referred to therein (as altered, amended or modified by all addenda thereto) for and in consideration of the following prices:

BID PRICE: The bidder shall complete the work as stated in these specifications and as shown on the plans and drawings for the total lump sum firm contract price of:

_____ Dollars
\$ 261,762.50 (Note this includes 7.5% for sales tax)

If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.5% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.

According to Nebraska Sales and Use Tax Requirements, Section 1-017, Contractors, check which option you have selected to file with the Nebraska Department of Revenue:

- ☐ Option 1 (Section 1-017.05)
☐ Option 2 (Section 1-017.06)
☐ Option 3 (Section 1-017.07)

The choice of option is made by completing and mailing to the Department of Revenue, a Nebraska Sales and Use Tax Election for Contractors. This form must be filed within three months after beginning to operate as a contractor. If this form is not filed, the contractor will be treated as a retailer under Option 1 for sales and use tax purposes.

EXPERIENCE DATA:

Each bidder shall supply the following data on his experience:

Name of Bidder:

Project Owner	Contact	Phone No.	Project Location	Completion Date
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See Proposal

Additional Data: _____

INSURANCE: Bidder acknowledges that bid includes compliance with the attached insurance requirements. Insurance Certificate is attached

ADDENDA: Bidder acknowledges that Addenda Number(s) 0 Published 0 were received and considered in Bid preparation. NOTE: While no formal addenda were published, we acknowledge receipt of past lab results and data.

EXCEPTIONS: Bidder acknowledges agreement with the accompanied specifications excluding the following listed exceptions:

Note that during oil processing, the processor will be required to run 24 hours until complete.

This is outside the specified work hours. Our Supervisor will coordinate any access or support from Grand Island to complete this portion of the work.

SCHEDULE: Bidder acknowledges and accepts the schedule as outlined in the General Specification.

INSURANCE AND BONDS: The undersigned bidder agrees to furnish the certificate of insurance and bonds, and to enter into a contract within twenty (20) days after acceptance of this Bid, and further agrees to complete all work covered by the foregoing bid in accordance with specified requirements. The proposed work will commence as soon as possible after the contract execution with completion of the total contract to be no later than May 15, 2020. **No work shall commence until the certificate of insurance and bonds are approved by the City and the**

contract is executed.

Enclosed herewith is the bid security in the amount of: 5% A scanned copy is attached. The hardcopy will be provided by courier. _____ Dollars

(\$ Final price is \$261,762.50 {this includes 7.5% taxes})

which the undersigned bidder agrees is to be forfeited to and become the property of the City of Grand Island, Nebraska, as liquidated damages should this Bid be accepted and a contract be awarded to them and they fail to enter into a contract in the form prescribed and to furnish the required bond within twenty (20) days, but otherwise the aforesaid bid guarantee will be returned upon their signing the contract and delivering the approved bond.

It is understood and agreed that time is the essence of the contract.

In submitting this bid it is understood that the right is reserved by the City to reject any and all bids; to waive irregularities therein and to accept whichever bid that may be in the best interest of the City, at its sole discretion. It is understood that this bid may not be withdrawn until after sixty (60) days from bid opening.

In submitting this bid, the bidder states that bidder fully complies with, and will continue to comply with, applicable State fair labor standards as required by section 73-102 RRS, 1943 and also

complies with, and will continue to comply with, section 48-657 RRS, 1943 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska.

The undersigned bidder hereby certifies (a) that this bid is genuine and is not made in the interest of or in the behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation, (b) that he has not directly or indirectly induced or solicited any person, firm or corporation to refrain from bidding, (c) that he has not sought, by collusion or otherwise, to obtain for himself an advantage over any other bidder or over the City of Grand Island, and (d) that he has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid.

DATED 4 Feb 2020

SIGNATURE OF BIDDER:

If an Individual: _____ doing business
as _____

If a Partnership: _____
by _____, member of firm.

If a Corporation: Transfluid Services INC.
by _____ (Seal)
Title _____

BUSINESS ADDRESS OF BIDDER 600 Travis St. Suite 6150, Houston, TX 77002

TELEPHONE NUMBER OF BIDDER 902-759-2957

FAX NUMBER OF BIDDER 902-755-2949

LIST ALL SUBCONTRACTORS:

<u>Company Name</u>	<u>Work Subcontracted</u>	<u>Business Address</u>	<u>Business Telephone Number</u>
None			

Appendix 2 - Sample Individual Bid Form

	Name	City Number	Individual Bid Price	W/Tax 7.5%
Substation H	Sub H South Distribution	6706	\$16,500.00	\$17,738.00
	Sub H South Distribution	6707		
	Sub H North Distribution	6708	\$16,500.00	\$17,738.00
	Sub H North Distribution	6709		
	Sub G - Sub H Tie	6724	\$15,200.00	\$16,340.00
	Sub G - Sub H Tie	6725		
	GT2 Step-up	10427N	\$5,200.00	\$5,590.00
	GT3 Step-up	10428N	\$5,200.00	\$5,590.00
PGS	Platte Generating Station #1 Step-up	8899	\$5,200.00	\$5,590.00
	Platte Generating Station Reserve Supply	6719	\$5,200.00	\$5,900.00
	Platte Generating Station Normal Supply	6720	\$17,900.00	\$19,243.00
Sub A	Substation "A" Transformer	6685	\$16,400.00	\$17,630.00
	Substation "A" Transformer	6686		
Sub B	Substation "B" South Transformer	6687	\$17,900.00	\$19,243.00
	Substation "B" South Transformer	6688		
	Substation "B" North Transformer	6689	\$15,000.00	\$16,125.00
	Substation "B" North Transformer	6690		
Sub C	Substation "C" West Transformer	6691	\$18,000.00	\$19,243.00
	Substation "C" West Transformer	6692		
	Substation "C" East Transformer	6726	\$15,000.00	\$16,125.00
	Substation "C" East Transformer	6727		
Sub D	Spare Platte Generating Station #1 Step-up	6718	\$5,200.00	\$5,590.00
Sub E	Substation "E" East Transformer	8900N	\$14,900	\$16,018.00
	Substation "E" East Transformer	8901N		
	Substation "E" West Transformer	11544N	\$13,800.00	\$14,835.00
	Substation "E" West Transformer	11545N		
Sub F	Substation "F" North Transformer	11546N	\$13,800.00	\$14,835.00
	Substation "F" North Transformer	11547N		
Sub J	Substation "J" West Transformer	30072N	\$13,200.00	\$14,190.00
	Substation "J" West Transformer	30072N		
	Substation "J" East Transformer	30071N	\$13,200.00	\$14,190.00
	Substation "J" East Transformer	30071N		

Prepared by Jeremy Taylor
US Army (Ret)

City of Grand Island
Substation Transformer Maintenance Package

Transfluid Services INC.
Jeremytaylor@starkoil.com
Phone 902-759-2957

**TRANSFLUID SERVICES INC (US)
STARK INTERNATIONAL
(CANADA)**

600 Travis Street
Houston, TX 770021
p 902-759-2957 f 877-875-2775 Ext 109

February 04th, 2020

CITY OF GRAND ISLAND, NEBRASKA
700 E. BISCHELD STREET
GRAND ISLAND, NE

Via: ☒ email/Online
☐ fax
☐ Mail

Attention: Travis Spiehs
Electrical Engineer

Re: Substation Transformer Maintenance Package

Dear Travis:

We at Transfluid Services INC, thank you for the opportunity to provide a proposal for the Substation Transformer Maintenance Package for the City of Grand Island.

Transfluid, an **ISO 9001** certified company, has 18 years of experience with transformers across North America and provides a full range of services for all aspects of substation maintenance.

Transfluid Services received a \$4,400,000 Federal contract to provide Substation Maintenance to Vandenberg Air Force Base, CA for the next 5.5 years in July of 2019.

Our focus on providing **Trusted Solutions and Superior Client Experiences** has helped us foster long-term relationships with our clients.

Some of our clients have been seeking our expertise for over 18 years!

Providing a high quality of service and expertise is something that we take pride in, everywhere that we do business. Our team has offices across North America (Rimbey Alberta, Houston Texas, Newark NJ).

We would like to thank you again for the opportunity to provide this proposal for the above-mentioned services and look forward to working with you.

Yours Truly,

Jeremy Taylor
Strategic Account Manager, Transfluid Services INC
jeremytaylor@starkoil.com
(C) 902.759.2957

CC: Transfluid Services INC: Director of Operations: devonwright@starkoil.com

Prepared by Jeremy Taylor
US Army (Ret)

City of Grand Island
Substation Transformer Maintenance Package

Transfluid Services INC.
Jeremytaylor@starkoil.com
Phone 902-759-2957

1. COMPANY HISTORY, STABILITY, AND FINANCIAL STABILITY

Transfluid Services (US/Stark International Canada), has over 18 years of experience conducting oil diagnostics, turn-key transformer commissioning, transformer repairs, and electrical testing for customers throughout North America.

1.1 Transfluid Services

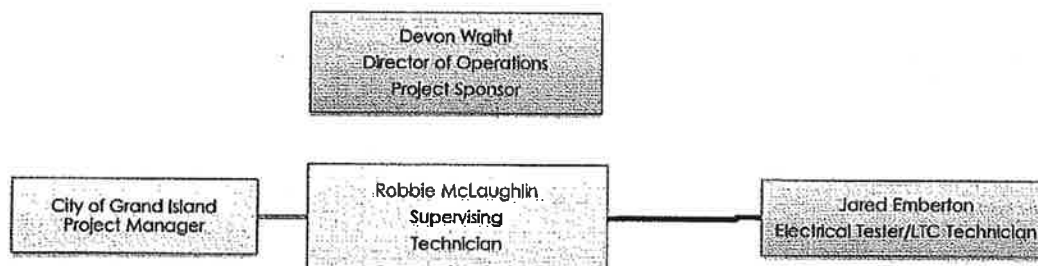
Transfluid Services is trusted by large utilities, industrials, and large transformer manufactures, to provide industry standard setting preventative maintenance, repairs and commissioning of new units. We have the largest private fleet of oil processors in Canada, and one of the top 5 largest private fleets in North America. Historically, we have had very few long-term contracts. Because we offer excellent service at competitive prices, we have numerous customers that have used our services continuously for over 10 years.

2. OUR TEAM AND WORK PLAN

As specialists in in transformer maintenance and electrical testing, we propose the following to accomplish the required work.

2.1. PROPOSED TEAM AND ORGANIZATON STRUCTURE

We propose the following project team as available resources for the duration of these projects. All mentioned candidates are very well versed and experienced for the SOW offered:



Our planned team will be led by Mr. Robbie McLaughlin, one of our senior supervisors. He will be supported by Mr. Jared Emberton, a former NETA III Level Technician. Jared is our Electrical Testing and Tap Load Changer subject matter expert with over 20 years experience. We have included several of his training certificates for your review and his resume.

PROJECT APPROACH AND WORK PLAN

1. **Upon being issued the project:** Transfluid Services will assign a project manager. This individual will be the single point of contact between the City of Grand Island and Transfluid Services responsible for ensuring that the list of milestones is understood and for reporting progress.
2. **Schedule:** We understand that the work must be accomplished prior to 15 May 2020. See our attached schedule that lays out the plan for testing and repairing each piece of equipment. Note that we will plan to conduct the oil processing for the 112MVA Westinghouse Transformer in the PGS at the beginning of the maintenance period. Further, we understand that switching only occurs during normal business hours and we will ensure that any downtime is minimized.
3. **Equipment:** We own all our own test equipment. Our project manager will arrive with a utility truck specifically outfitted with all the equipment required to accomplish all the maintenance required for Tap Load Changers. Our Project manager has decades of experience with
4. **Sample Reports:** We have attached a sample of the reports that we will provide to ensure that the Danville maintenance team has a comprehensive view of the equipment maintenance status, and we will provide recommendations for future preventative maintenance actions.
 - 4.1. **Electrical Maintenance Report:** Attached is an example of the report that we will provide for all electrical tested equipment. It includes preventative maintenance recommendations. See attached. The examples are reports that we provide to the Chief Engineer at Vandenberg Air Force Base as part of our 5 year contract.
 - 4.2. **Fleet Transformer Assessment:** This report sets the industry standard and provides an in-depth analysis of the current maintenance condition of all transformers and recommended preventative maintenance actions. See attached.

5. PAST PERFORMANCE.

Below are references for past projects.

Project Owner	Contact	Phone No	Location	Completion Date
US Air Force	Jessica Carrasco	805-606-2808 jessica.carrasco@us.af.mil	Vandenberg Air Force Base, CA	Jul 2019-Jul 2024
Central Arizona Project	Rick Lott	623-869-2247 rlott@cap-az.com	Mark Wilmer Pumping Plant, Parker Arizona	April 16-May 2 2019
PBF Delaware City Refining Company	Eric Elko	443-907-8403 eric.elko@pbfenergy.com	City of Delaware, Delaware	March-May 2017, December 2018
Vale Canada	Richard Mullaly	705-682-5679 Richard.Mullaly@vale.com	Sudbury Ontario	2015-2018, 2018-2021 (3yr Contracts)

Prepared by Jeremy Taylor
US Army (Ret)

City of Grand Island
Substation Transformer Maintenance Package

Transfluid Services INC.
Jeremytaylor@starkoil.com
Phone 902-759-2957

6. ACKNOWLEDGEMENTS

1. Transfluid Services is extremely Safety conscious. Each workday will begin with a safety briefing specific to the work being conducted. We have also included the last three years of OSHA 300 logs for your review.
2. Insurance: Our insurance certificate is attached.
3. Bid Bond: We have provided a scanned copy of our bid bond. Please note that the original hardcopy of the Bid Bond will be couriered to your office. Unfortunately due to a clerical error the original was mailed to the wrong location. We have requested a duplicate and will provide that as soon as we possible.
4. Financial Statements: We are prepared to provide financial statements if requested.
5. Equal Opportunity: Transfluid Services INC adheres to a strict policy for Equal Opportunity IAW with all applicable laws and regulations.
6. Gratuities and Kickbacks: Transfluid Services INC. adheres to strict moral and ethical standards.

7. EXCEPTIONS TO RFP

1. Please note that for oil processing, work will be performed on a 24 hour basis and therefore outside the 7am to 3:30pm work hours. Once the processor is started it cannot be stopped until the work is complete. Our lead supervisor will coordinate for the appropriate access and arrangements to accomplish this.

8. COST PROPOSAL

Cost is on the City of Grand Island Bid form, attached.

DRAFT Work Schedule

Note, schedule considers 10-12 hour work days, 7 days a week. We understand only 7-3:30 Mon-Fri times allowed for switching by GIUD. Schedule allows 2 hrs switching in morning for units to be taken offline, and switching on the following morning to allow our crews to work full day during daylight hours.

For transformer requiring oil processing/dryout, we will require 24/7 access to the transformer during the work, as the process cannot stop midway.

March 16-20								Week 1
Activity	M	T	W	TH	F	SA	SU	
	16	17	18	19	20	21	22	
Unit 6716 (1 day total, switching following morning)								
Units 6807N & 6807S (2 days total, switching following morning)								
Units 6807N & 6807S (2 days total, switching following morning)								
March 23-27								Week 2
Activity	M	T	W	TH	F	SA	SU	
	23	24	25	26	27	28	29	
Units 6807N & 6807S re-energized by GIUD								
Units 6846N & 6846S (2 days total, switching following morning)								
Units 6846N & 6846S (2 days total, switching following morning)								
Units 6807N & 6807S (2 days total, switching following morning)								
March 30-April 3								Week 3
Activity	M	T	W	TH	F	SA	SU	
	30	31	1	2	3	4	5	
Units 6807N & 6807S re-energized by GIUD								
Unit 6826S & 6826N (2 days total, switching following morning)								
Units 6891 & 6892 (2 days total, switching following morning)								
Units 6885 & 6886 (2 days total, switching following morning)								
April 6-10								Week 4
Activity	M	T	W	TH	F	SA	SU	
	6	7	8	9	10	11	12	
Unit 6685 & 6686 - re-energized by GIUD								
Units 6706 & 6707 (2 days total, plus switching next morning)								
Units 6708 & 6709 (2 days total, plus switching next morning)								
Units 6723 & 6725 (2 days total, plus switching next morning)								
April 13-17								Week 5
Activity	M	T	W	TH	F	SA	SU	
	13	14	15	16	17	18	19	
Units 6724 & 6725 re-energized by GIUD								
Unit 6828N (1 day total, plus switching next morning)								
Unit 6827N (1 day total, plus switching next morning)								
Units 6889 & 6890 (2 days total, plus switching next morning)								
Units 6887 & 6888 (2 days total, plus switching the following Monday morning)								
April 20-24								Week 6
Activity	M	T	W	TH	F	SA	SU	
	20	21	22	23	24	25	26	
Units 6887 & 6888 re-energized by GIUD								
Unit 6719 (1 day total, plus switching next morning)								
Unit 8899 (1 day total, since switching when outage over)								
Unit 6720 (3 days total, since switching when outage over)								

Prepared by Jeremy Taylor
US Army (Ret)

City of Grand Island
Substation Transformer Maintenance Package

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Phone 902-759-2957

SECTION D

MINIMUM INSURANCE REQUIREMENTS

MINIMUM INSURANCE REQUIREMENTS

CITY OF GRAND ISLAND, NEBRASKA

The Contractor shall purchase and maintain at their expense as a minimum insurance coverage of such types and in such amounts as are specified herein to protect Contractor and the interest of Owner and others from claims which may arise out of or result from Contractor's operations under the Contract Documents, whether such operations be by Contractor or by any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. Failure of Contractor to maintain proper insurance coverage shall not relieve him of any contractual responsibility or obligation.

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 be not less than the following:

Bodily Injury & Property Damage	\$ 500,000 Combined Single Limit
---------------------------------	----------------------------------

3. COMPREHENSIVE GENERAL LIABILITY

The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall be not 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 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.**

SECTION E

CONTRACT AGREEMENT

SUBSTATION TRANSFORMER MAINTENANCE PACKAGE

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between Transfluid Services INC.
hereinafter called the Contractor, 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 bids to be published, for construction of SUBSTATION TRANSFORMER MAINTENANCE PACKAGE; and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined, and canvassed the bids submitted, and has determined the aforesaid Contractor to be the lowest responsive and responsible bidder, and has duly awarded to the said Contractor a contract therefore, for the sum or sums named in the Contractor's bid, a copy thereof being attached to and made a part of this contract;

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

ARTICLE I. That the Contractor shall (a) furnish all tools, equipment, superintendence, transportation, and other construction materials, services and facilities; (b) furnish, as agent for the City, all materials, supplies and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good substantial and workmanlike manner and in accordance with the requirements, stipulations, provisions, and conditions of the contract documents as listed in the attached General Specifications, said documents forming the contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the City's official award of this contract to the said Contractor, such award being based on the acceptance by the City of the Contractor's bid;

ARTICLE II. That the City shall pay to the contractor for the performance of the work embraced in this contract and the contractor will accept as full compensation therefore the sum (subject to adjustment as provided by the contract) of Two Hundred sixty-one, seven hundred sixty-two and fifty cents Dollars
\$ 261,762.50

for all services, materials, and work covered by and included in the contract award and designated in the foregoing Article I; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

ARTICLE III. The contractor hereby agrees to act as agent for the City in purchasing materials and supplies for the City for this project. The City shall be obligated to the vendor of the materials and supplies for the purchase price, but the contractor shall handle all payments hereunder on behalf of the City. The vendor shall make demand or claim for payment of the purchase price from the City by submitting an invoice to the contractor. Title to all materials and supplies purchased hereunder shall vest in the City directly from the vendor. Regardless of the method of payment, title shall vest immediately in the City. The contractor shall not acquire title to any materials and supplies incorporated into the project. All invoices shall bear the contractor's name as agent for the City. This paragraph will apply only to these materials and supplies actually incorporated into and becoming a part of the finished product of SUBSTATION TRANSFORMER MAINTENANCE PACKAGE.

ARTICLE IV. That the contractor shall start work as soon as possible after the contract is signed and the required bonds and insurance are approved, and that the Contractor shall complete the work on or before May 15, 2020. It is understood and agreed that time is the essence of the contract.

CONTRACT AGREEMENT (Continued)

ARTICLE V. The Contractor 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 Contractor 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 contractor and all subcontractors 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 Contractor agrees to comply with all applicable Local, State and Federal rules and regulations.

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement.

Contractor 

By Jeremy Taylor

Date 6 Feb 2020

Title Strategic Account Manager, Transfluid Services INC.

CITY OF GRAND ISLAND, NEBRASKA,

By Mayor

Date _____

Attest: _____
City Clerk

The contract, insurance, and any required bonds are in due form according to law and are hereby approved.

Attorney for the City

Date _____

SECTION F

CITY GENERAL SPECIFICATIONS

SUBSTATION TRANSFORMER MAINTENANCE PACKAGE

GENERAL SPECIFICATIONS SUBSTATION TRANSFORMER MAINTENANCE PACKAGE

1.0 PROJECT OVERVIEW AND SCOPE

The City of Grand Island owns an electric system consisting of a 115 kV loop around the City. This transmission loop connects seven distribution substations and two generation substations. The loop also has five 115 kV interconnections, at four substations, to the Nebraska Public Power District (NPPD).

The Grand Island Electric Department is soliciting Bids for scheduled load tap changer maintenance of thirteen substation transformers, electrical testing of nineteen substation transformers, and oil processing for one transformer. Descriptions of each transformer are in Appendix 1. Full nameplate, DGA, and PCB info is available upon request.

The Electric Department intends to perform the required maintenance on as many transformers as possible in a single, uninterrupted, sequential project. A price for up to three trips to Grand Island shall be included to test transformers that may be unavailable during the initial visit. The three trips shall be used for the following:

- 1) One trip for mobilization.
- 2) One trip can be charged to weather related work stoppage.
- 3) One trip can be used for coordination by the City.

If additional trips are necessary due to weather or other projects being conducted by the contractor, they shall be at the contractor's expense. The contractor shall provide a tentative schedule of transformer maintenance. This schedule will be reviewed by The City of Grand Island and any modifications or clarifications shall be discussed. Once an agreeable schedule is developed, The City of Grand Island shall work with the contractor to accommodate the schedule. The contractor shall note an exception and provide a quotation including additional mobilizations to Grand Island if the contractor is unable to comply with these guidelines.

2.0 PROJECT DETAILS

2.1 The LTC project will replace all manufacturer recommended wear items associated with the load tap changers. The contractor will be responsible for supplying these items as well as all gaskets, minor hardware, cleaning supplies, etc. that may be needed during the execution of this project. The City of Grand Island will be responsible for de-energizing equipment but the contractor should provide all personnel, equipment, and tooling required for repairs. In addition, all LTC oil will be replaced with new. All transformer oil is PCB free (<50 PPM). DGA and PCB test results are available at the bidder's request. The contractor is responsible for following all local, state, and federal laws including oil contamination precautions and confined space requirements if necessary. The contractor shall document all LTC work completed in detail as well as document all electrical testing and provide the results to GIUD.

As part of the LTC maintenance, the contractor will be responsible for:

1. Draining LTC compartment completely and disposing of the old oil
2. Cleaning debris and residue from inside of compartment
3. Providing and replacing arcing contacts(where applicable)
4. Checking wear indicators on vacuum bottles and replacing if necessary(where applicable)
5. Providing and replacing gaskets(where applicable)
6. Hand cranking mechanism to verify no binding on all taps
7. Motor testing mechanism to verify no binding on all taps
8. Verify tap limit switches operate as designed
9. Making any needed adjustments to the mechanism
10. Refill with new mineral oil
11. Verify no leaks

One special case exists with the LTC on transformer number 6688 involving the replacement of a brass seal between the LTC main tank and a dry compartment containing contacts for the LTC. GIUD has this seal in stock but would like the seal replaced as part of this project. Specific drawings are included in Appendix 4.

2.2 The electrical testing portion of this project will include all transformers included in the LTC maintenance as well as three step up transformers and two generation supply transformers. Information for these units is included in Appendix 1. The required electrical tests include:

Power Factor Tests--Each transformer shall be power factor tested using industry standardized procedures, equipment and reporting. All transformer high side bushings shall be power factor tested in accordance with recommended procedures. The most recent power factor test results will be supplied to the contractor for comparison purposes.

Ratio Test--Each transformer will be ratio tested and results verified with nameplate information. This shall include each step of the Load Tap Changer where applicable.

Frequency Response Analysis--Each transformer winding shall be analyzed using sweep frequency response analysis. The sweep should include a minimum range of 15Hz to 15kHz.

DC Winding Resistance--Each transformer shall be tested for problematic circuits and connections using a DC winding resistance test. The test equipment manufacturer's requirements for the safe performance of DC resistance testing are to be strictly enforced and followed.

Insulation Resistance Test--Non-destructive transformer insulation tests to ground shall be performed as applicable with an appropriate test device. The test equipment manufacturer's requirements for the safe performance of insulation resistance testing are to be strictly enforced and followed.

2.3 The oil processing portion of this project includes one 12MVA generation supply transformer(#6720) that has a slightly elevated moisture content. The contractor will be responsible for draining the oil and removing the moisture with heat and vacuum as per industry standards. The oil should also be processed to remove gases. The contractor is responsible for sampling the oil before and after processing to provide DGA and moisture results as part of this project.

2.4 A site visit is suggested in order to determine the extent of labor and equipment required to perform the various activities. Please contact Travis Spiehs at (308) 385-5462 x1144 or travis.spiehs@giud.com to set up an appointment.

3.0 BIDDING NOTES

Bids should be submitted with a set of itemized work costs for each transformer. In the case that work is not completed by the deadline, the costs associated with the work completed will be predefined by this itemized bid. Appendix 2 is a sample bid sheet.

4.0 PROJECT EXECUTION

This project is to be completed by May 15, 2020. Proposal should include a lead time and a completion time. The City of Grand Island will be responsible for removing from service and disconnecting each transformer prior to work. Normal working hours are Monday through Friday, 8:00 am to 3:30 pm. Any switching activities shall be completed during normal working hours.

Transformers 8899 and 6720 are associated with our power plant which is currently scheduled for outage between April 23, 2020 and May 7, 2020 so work on these units will need to be scheduled during this time. Also, transformer 6719 will be unavailable for work on these dates to supply our power plant during its scheduled maintenance.

The contractor shall be responsible for any oil spills, cleanup and disposal of cleaning supplies. Special precautions should be taken when working in the live high voltage substation. The bidder shall comply with federal, state and local regulations regarding safety, health, and accident prevention.

5.0 QUALIFICATIONS

The contractor shall have education, training and experience in the maintenance, testing, and inspection of power transformers as described in these specifications. Identification of the primary personnel (those who will be performing the maintenance) and a statement of their qualifications shall be included with the proposal.

SECTION G

APPENDICES

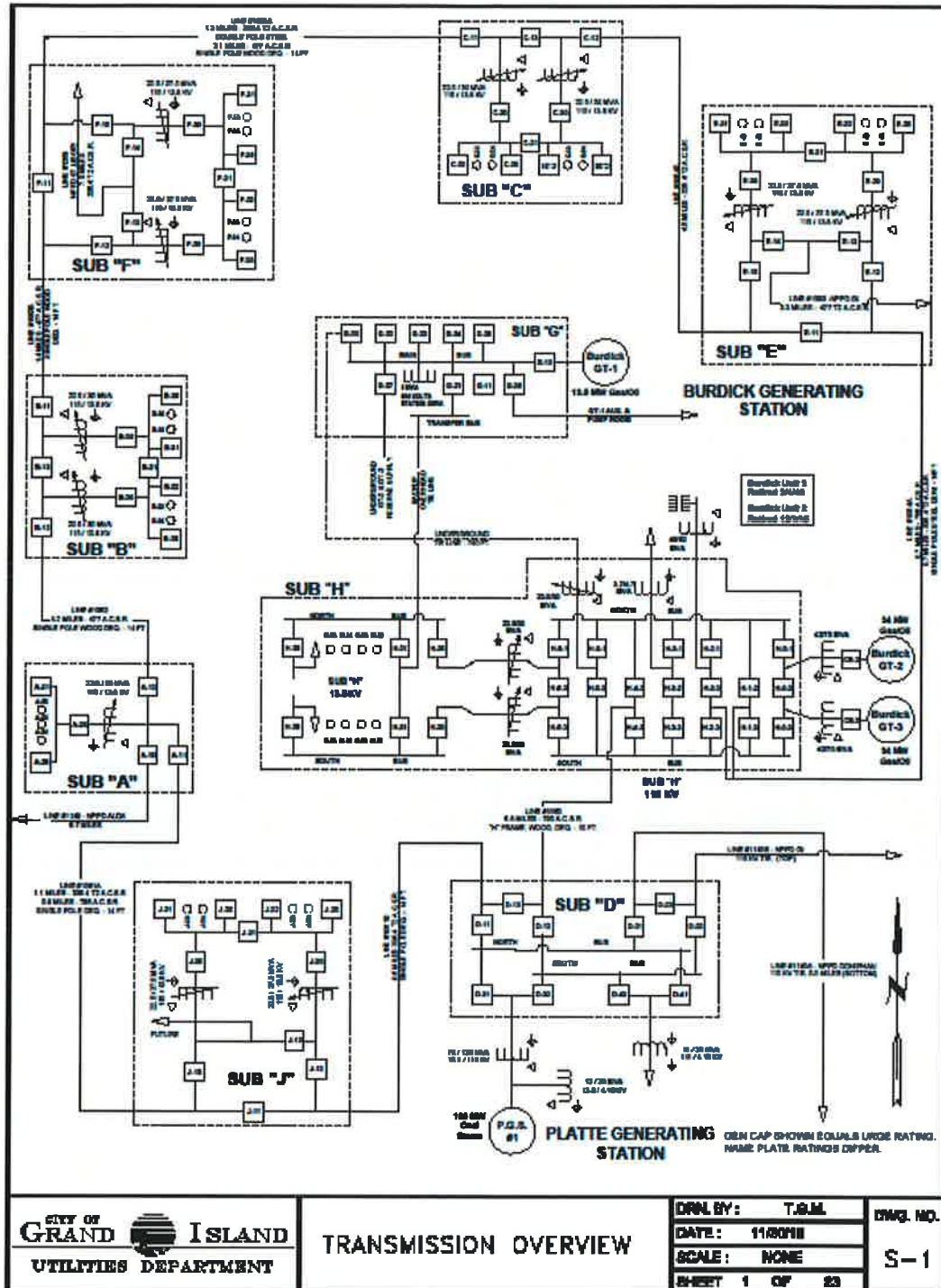
Appendix 1 – Transformer List

	Name	Function / Voltages	Electrical Testing	LTC Maint	Oil Processing	City Number	Manufacturer	Rating	Gallons of Mineral Oil	Serial Number
Substation H	Sub H South	115,000/13,800	X			6706	General Electric	22,500 kVA	6160	F-961693B
	Sub H South	LTC Tank on 6706	X	X		6707	LR-65	22,500 kVA	430	
	Sub H North	115,000/13,800	X			6708	General Electric	22,500 kVA	6160	F-961693A
	Sub H North	LTC Tank on 6708	X	X		6709	LR-65	22,500 kVA	430	
	Sub G - Sub H Tie	115,000/13,800	X			6724	McGraw Edison	22,500 kVA	6455	C-07064-5-1
PGS	Sub G - Sub H Tie	LTC Tank on 6724	X	X		6725	V2A	22,500 kVA	480	
	GT2 Step-up	115,000/13,800	X			10427N	Waukesha	42,000 kVA	6205	A4430T
	GT3 Step-up	115,000/13,800	X			10428N	Waukesha	42,000 kVA	6205	A4431T
	PGS Step-up	115,000/13,800	X			8899	ABB	75,000 kVA	9215	LNL-9353
	PGS Reserve Supply	115,000/4,160	X			6719	Westinghouse	15,000 kVA	5091	RQS-2464-1
Sub A	PGS Normal Supply	13,800/4,160	X		X	6720	Westinghouse	12,000 kVA	2572	RBS-2283
	Sub A	115,000/13,800	X			6685	General Electric	22,500 kVA	6160	F-961693C
	Sub A	LTC Tank on 6685	X	X		6686	LR-65	22,500 kVA	430	
	Sub B South	115,000/13,800	X			6687	Westinghouse	22,500 kVA	7835	
	Sub B South	LTC Tank on 6687	X	X		6688	UTT-B	22,500 kVA	360	RDP-1980-1
Sub B	Sub B North	115,000/13,800	X			6689	Westinghouse	22,500 kVA	6025	
	Sub B North	LTC Tank on 6689	X	X		6690	UVT	22,500 kVA	467	UCS2996-1
	Sub C West	115,000/13,800	X			6691	Westinghouse	22,500 kVA	7835	
	Sub C West	LTC Tank on 6691	X	X		6692	UTT-B	22,500 kVA	360	RDP-1980-2
	Sub C East	115,000/13,800	X			6726	McGraw Edison	22,500 kVA	6455	
Sub C	Sub C East	LTC Tank on 6726	X	X		6727	V2A	22,500 kVA	480	C-07064-5-2
	Spare PGS Step-up	115,000/13,800	X			6718	Westinghouse	67,000 kVA	8995	VGS-6579-1
	Sub E East	115,000/13,800	X			8900N	Waukesha	22,500 kVA	5550	
	Sub E East	LTC Tank on 8900N	X	X		8901N	UZD	22,500 kVA	100	GM971411
	Sub E West	115,000/13,800	X			11544N	Siemens	22,500 kVA	4775	
Sub E	Sub E West	LTC Tank on 11544N	X	X		11545N	RMV-II	22,500 kVA	343	TP733
	Sub F South	115,000/13,800				30420	WEG	22,500 kVA	5283	
	Sub F South	LTC Tank on 8902N				30421	VRLTC	22,500 kVA	285	1026909011
	Sub F North	115,000/13,800	X			11546N	Siemens	22,500 kVA	4775	
	Sub F North	LTC Tank on 11546N	X	X		11547N	RMV-II	22,500 kVA	343	TP732
Sub F	Sub J West	115,000/13,800	X			30072N	Delta Star	22,500 kVA	5530	
	Sub J West	LTC Tank on 30072N	X	X		30072N	RMV-II	22,500 kVA	280	F76070811
	Sub J East	115,000/13,800	X			30071N	Delta Star	22,500 kVA	5530	
	Sub J East	LTC Tank on 30071N	X	X		30071N	RMV-II	22,500 kVA	280	F76080811

Appendix 2 - Sample Individual Bid Form

	Name	City Number	Individual Bid Price
Substation H	Sub H South Distribution	6706	
	Sub H South Distribution	6707	
	Sub H North Distribution	6708	
	Sub H North Distribution	6709	
	Sub G - Sub H Tie	6724	
	Sub G - Sub H Tie	6725	
	GT2 Step-up	10427N	
	GT3 Step-up	10428N	
PGS	Platte Generating Station #1 Step-up	8899	
	Platte Generating Station Reserve Supply	6719	
	Platte Generating Station Normal Supply	6720	
Sub A	Substation "A" Transformer	6685	
	Substation "A" Transformer	6686	
Sub B	Substation "B" South Transformer	6687	
	Substation "B" South Transformer	6688	
	Substation "B" North Transformer	6689	
	Substation "B" North Transformer	6690	
Sub C	Substation "C" West Transformer	6691	
	Substation "C" West Transformer	6692	
	Substation "C" East Transformer	6726	
	Substation "C" East Transformer	6727	
Sub D	Spare Platte Generating Station #1 Step-up	6718	
Sub E	Substation "E" East Transformer	8900N	
	Substation "E" East Transformer	8901N	
	Substation "E" West Transformer	11544N	
	Substation "E" West Transformer	11545N	
Sub F	Substation "F" North Transformer	11546N	
	Substation "F" North Transformer	11547N	
Sub J	Substation "J" West Transformer	30072N	
	Substation "J" West Transformer	30072N	
	Substation "J" East Transformer	30071N	
	Substation "J" East Transformer	30071N	

Appendix 3 – System One Line Diagram



Appendix 4 – Details for 6688 Seal Replacement

ABB

ABB POWER T & D COMPANY INC. - COMPONENTS DIVISION

TITLE: UTT CAM SWITCH OIL SEAL REPLACEMENT

NO. 7398C82

SUB 1

FIN CHART 2020493

UTTB From Topper

DESCRIPTION	SIZE AND MATERIALS	QTY	1	2	3	4	5	6	7	8	9
1. INVERT	1/4" DIA	1									
2. "UP" RING	1/4" DIA	1									
3. SEAL	1/4" DIA	1									
4. INSTRUCTION DRAWING	1/4" DIA	1									

INSTRUCTIONS:

1. DE-ENERGIZE THE TRANSFORMER AND DRAIN THE OIL FROM THE LIT. HAND GEAR AND GEAR MOUNTING. POSITION AND LOCK THE BULL.
2. REMOVE THE POWER FROM THE LIT CONTROL.
3. MATCH MARK THE OUTPUT AND INPUT GEARS TO THE CAM SWITCH ASSEMBLY. ALSO MARK THE CAM SWITCH MOUNTING SURFACES AND THE AIR COMPARTMENT MOUNTING. THIS IS TO INSURE THAT WHEN IT IS MOVED BACK TO ITS ORIGINAL POSITION, THE CAM SWITCH MOUNTING SURFACES AND THE AIR COMPARTMENT MOUNTING CAN BE BOLTED BACK TO ITS ORIGINAL POSITION.
4. THE CAN BASE ASSEMBLY CAN BE BOLTED BACK TO ITS ORIGINAL POSITION. REMOVE THE BOLTS AND NUTS. REMOVE THE BOLTS AND NUTS FROM THE OUTPUT GEAR ASSEMBLY. CAN BE BOLTED BACK TO ITS ORIGINAL POSITION.
5. UTT - REMOVE THE SPUR GEAR RETAINING RING, SPUR GEAR AND WOODRUFF KEY FROM THE VERTICAL SHAFT.
6. UTTA - REMOVE THE METER GEAR RETAINING RING, METER GEAR AND THE WOODRUFF KEY FROM THE HORIZONTAL OUTPUT SHAFT.
7. SIGNIFY THE OIL SEAL CHECK THE SHAFT SURFACE AND BOSS IN FOR THE OIL SEAL. THE OIL SEAL IS TO BE PLACED IN THE OIL SEAL BOSS. WHILE MAKING SURE THE GR. 1 SEAL ASSEMBLY IS IN PLACE. SURE THE ASSEMBLY IS FULLY OVER THE OUTPUT SHAFT AND PRESS IT IN UNTIL IT SEATS FIRMLY AGAINST THE MOUNTING BOSS.
8. REASSEMBLE THE RETAINING RING/S, KEY AND OUTPUT GEAR. SWING THE CAM SWITCH BACK INTO PROPER POSITION. OBSERVE ALL MATCH MARKS. LIGHTEN ALL CAM SWITCH MOUNTING BOLTS. GEAR BACKLASH SHOULD BE MINIMIZED.
9. THE UTT AND UTTA CAM SWITCHES ARE OPEN BETWEEN POSITIONS 15° AND 100°. ALSO WHEN ON POSITION 15° (1) THAT THE 15°/100° LK. ADJ. CLK. CAM SWITCHES ARE OPEN.
10. REPEAT IN THE REVERSE DIRECTION TO POSITION 180° FOR SIMILAR ACTION FOR THE "LF" CLK. "LF" CLK. AND "120°/120°" CAM SWITCHES.
11. OPERATE THE LIT A NUMBER OF TIMES IN AN ELECTRICALLY COMPLETE ANY OTHER MAINTENANCE PROCEDURES. FILL WITH OIL AND CHECK ELECTRICAL OPERATION. NON SEQUENTIALLY FROM 100° TO 180°.

UTTB

UTTA -70/UTTB/RMT1

UTTA

GR.1

ABB POWER T & D COMPANY INC.

APPARATUS: UTT LIT

CAM SWITCH OIL SEAL REPLACEMENT

SIGNATURE IN INK: SCALE 1:1

UTTB From Topper 1/4" DIA

7398C82

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RESOLUTION 2020-49

WHEREAS, the City of Grand Island invited sealed bids for Substation Transformer Maintenance, according to plans and specifications on file with the Utilities Department; and

WHEREAS, on February 5, 2020, bids were received, opened and reviewed; and

WHEREAS, Transfluid Services, of Houston, Texas submitted a bid in accordance with the terms of the advertisement of bids and plans and specifications and all other statutory requirements contained therein, such bid being in the amount of \$261,762.50; and

WHEREAS, the bid of Transfluid Services, is less than the estimate for Substation Transformer Maintenance.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the bid of Transfluid Services, in the amount of \$261,762.50, for Substation Transformer Maintenance, is hereby approved as the lowest responsible bid.

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Adopted by the City Council of the City of Grand Island, Nebraska, February 25, 2020.

Roger G. Steele, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form	☐ _____
February 21, 2020	☐ City Attorney