

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda
Bids and Proposals

TO : President and Village Board of Trustees

FROM : Scott Niehaus, Village Manager

DATE : January 10, 2018 Agenda Date: January 18, 2018

TITLE : Waiver of Bids – Energenecs, Inc.
2018 SCADA System Hardware Upgrade Phase 3

SUBMITTED BY: Brian M. Jack, Utilities Superintendent *Bj/ke*

RESULTS:

Date Bids Were Published _____ Bidding Closed _____

Total Number of Bids Received _____

Total Number of Bidders Meeting Specifications _____

Bid Security Required _____ Yes _____ No

Performance Bond Required _____ Yes _____ No

Were Any Bids Withdrawn _____ Yes _____ No

Explanation:

Waiver of Bids Requested? _____ **X** Yes _____ No

If yes, explain:

Award Recommended to Lowest Responsible Bidder? _____ Yes _____ No

If no, explain:

FISCAL IMPACT:

Engineer's Estimate/Budget Estimate \$135,000

Amount of Award \$134,390.00 Account # 520.790.715.75420

Water and Sewer Capital Reserve Fund – SS 17 01

BACKGROUND/RECOMMENDATION:

Waive bids and award contract for SCADA System Hardware Upgrade for an amount not to exceed \$134,390.00.

Has Recommended Bidder Worked for Village Previously **X** Yes _____ No

If yes, was quality of work acceptable **X** Yes _____ No

Was item bid in accordance with Public Act 85-1295? _____ Yes **X** No

Waiver of bids - Public Act 85-1295 does not apply **X** Yes

REVIEW (as needed):

Village Attorney XX _____ Date _____

Finance Director XX _____ Date _____

Village Manager XX _____ Date _____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Board Agenda distribution.



MEMORANDUM

To: Scott Niehaus, Village Manager
From: Brian M. Jack, Utilities Superintendent *B*
Through: Carl S. Goldsmith, Director of Public Works *g*
Date: January 4, 2018
Subject: **Waiver of Bids – Energenecs, Inc.**
2018 SCADA System Hardware Upgrade Phase III

Executive Summary/Background

At the February 19, 2015 Board of Trustees meeting, a contract was awarded to Energenecs, Inc. for phase I of the SCADA System modernization plan. Phase I was to upgrade the existing radio equipment to the remote pump and lift stations. At the February 4, 2016 Board of Trustees meeting, a contract was awarded to Energenecs Inc. for phase II and the SCADA System Software upgrade. In the staging plan, it was recommended that the radios be upgraded prior to the implementation and roll out of the 2016 SCADA System Software Upgrade to prevent any security, communication or integration issues. At the March 2, 2017 Board of Trustees meeting, the Board awarded a contract to Energenecs Inc. for the first part of phase III, a 2 year project replacing all hardware at each physical station. All work for Phase I, Phase II and half of Phase III has been completed with no issues to report.

Energenecs Inc. has been the Village's SCADA integrator for many years and has a proven record of outstanding performance and workmanship. They also have extensive knowledge of the Village's system for an efficient transition to the new software and equipment.

Introduction

The WTWWP Division has been operating a SCADA system since 1982. Many hardware and software upgrades have taken place over the years in order to remain current with industry standards. As with any technology, after a certain amount of time, hardware and software becomes obsolete and are no longer supported or is difficult to maintain and integrate. During 2015, the Village and their SCADA integrator developed a long range plan that would be phased in over three to four years and bring all existing technology up to current industry standards. The timing of these upgrades is critical as current software and hardware are slowly being phased out and no longer supported. There are higher costs associated with keeping out-of-date technology running smoothly so the time to upgrade was eminent.

Current Status

The SCADA system has enabled the WTWWP Division to quickly monitor and respond to emergencies in the water, sewer and storm water systems. Operators can monitor water tank and tower levels, pond conditions, and sewer lift station operations. The current software that

monitors and controls the SCADA System is a program called Wonderware and was just implemented as part of Phase II of the modernization project.

Discussion

The 2015 SCADA System Radio Upgrade project was the first portion of the modernization that took place. This project was completed on time and under budget in 2015 with no issues to report. Because connectivity and integration time has decreased, the Village is starting see a positive return on investment in less than a years' time with less calls for support to the Integrator as most issues can be resolved remotely from their offices in Wisconsin through the web.

Phase II of the project included upgrading the current SCADA System Software. The software component had to be completed prior to upgrading the hardware at each remote site. The 2016 SCADA System Software upgrade, coupled with the recently completed 2015 SCADA System Radio upgrade have allowed the integrator easier access to each station and has streamlined monitoring and operations for the operators.

Phase III of the upgrade, which began in 2017, replaced all hardware components at 17 remote sites. The last phase of this ongoing project will conclude in 2018 and is budgeted for in the current CIP. After all phases and upgrades are complete, the Village's SCADA system will meet all current industry standards with no immediate signs of software or hardware obsolescence. These enhancements will aid in the visual and operational functions of the SCADA system.

Waiver of Bids

The Public Works Department requests authorization to waive the formal bidding process in order to expedite the 2018 SCADA System Hardware Upgrade. Staff discussed the project with Energenecs Inc. and came to a consensus on what direction the Village should be headed with the SCADA system. All proposed hardware components for this upgrade are current with industry standards.

The following ONE (1) firm submitted the following proposal:

SUPPLIER	PROJECT	TOTAL
Energenecs, Inc. of Cedarburg, WI	SCADA System Hardware Upgrade	\$134,390.00

Phase III was programmed to occur over 2 years in 2017 and 2018 addressing the remote sites including all water pumping stations. They will have upgraded human machine interface touchscreen terminals added along with new programmable logic controllers. Attachment A is the last portion of the Phase III proposal for this recommended upgrade in 2018. Stations being upgraded in 2018 are as follows: 108'' Storm, 48'' Storm, Garfield Lift Station, Grace and Central Lift Station, Highland Estates Lift Station, Sunset Knolls Lift Station, Terrace View Storm Water Station, North Avenue Water Station and both Civic Center Master SCADA Panels.

The current proposal was checked to ensure that the supplier was providing the needed and necessary software. The lowest responsible proposal for the items requested is Energenecs, Inc. of Cedarburg, WI. The firm performed the 2015 SCADA System Radio upgrades, the 2016 SCADA System Software upgrade and the recently completed 2017 hardware upgrade and has been the Village's SCADA integrator for the last 15 years. There is tremendous value in having a solid relationship with a SCADA systems integrator, which is not uncommon in this market. They have integrated the Village's entire SCADA system infrastructure, they are responsive, and they have competent and reliable staff that is easy to work with and understands our vision and current needs. Reference checks and client follow up were performed for projects similarly related software upgrade projects. There are no issues to report. Energenecs, Inc. is considered a reliable, responsive vendor.

Recommendations:

Please request the Board of Trustees to waive the formal bidding process and accept the lowest, responsible proposal for the 2018 SCADA System Hardware Upgrades as submitted by Energenecs, Inc. of Cedarburg, WI and authorize an agreement in an amount not to exceed \$134,390.00 at the January 18, 2018 BoT meeting. This recommendation meets the requirements defined in the Finance Department Purchasing Policy and Procedures Manual Chapter 3, Section C for Sole Source Purchases. Sufficient funds exist in the current budget to support this expenditure.

Please execute signature on the attached contract and return two copies to the Water Treatment and Wastewater Pumping Division for further processing.

VILLAGE OF LOMBARD

Contract for 2018 SCADA System Hardware Upgrades

This agreement is made this 18th day of January, 2018, by and between, and shall be binding upon, the Village of Lombard, an Illinois municipal Corporation hereinafter referred to as (the "Village") and (Energenecs, Inc.) hereinafter referred to as (the "Contractor").

Witnesseth That in consideration of the mutual promises of the parties delineated in the Contract Documents, the Contractor agrees to sell and the Village agrees to pay for the following described items as set forth in the Contract Documents:

2018 SCADA System Hardware Upgrades in an amount not to exceed \$134,390.00

1. This Contract shall embrace and include all of the applicable Contract Documents listed below as if attached hereto or repeated herein:
 - a. The Contractor's Proposal dated January 4, 2018
 - b. Required Certificate of Insurance, Indemnification, Venue, Other Contractor Responsibilities
2. The Village agrees to pay, and the Contractor agrees to accept as full payment for the items which are the subject matter of this Contract the total sum of \$134,390.00 paid in accordance with the provisions of the Local Government Prompt Payment Act and the provisions of the Contract Documents.
3. Risk of loss, destruction or damage of or to goods under this Contract shall be on contractor until delivery of the goods to the Village and acceptance of the goods by the Village.
4. The Contractor agrees to perform the terms of this Contract according to the following schedule set forth in their quotation after the Notice to Proceed has been delivered. Time is of the essence of this Contract.

IN WITNESS WHEREOF, the Village of Lombard, Illinois by Village President, and the Contractor have hereunto set their hands this 18th day of January, 2018

If an individual or partnership, all individual names of each partner shall be signed or if a corporation, an officer duly authorized shall sign here:

Accepted this ___ day of _____, 20__.

Individual or Partnership _____ Corporation _____

By Position/Title

By Position/Title

Print Company Name

THE VILLAGE OF LOMBARD, ILLINOIS

Accepted this 18th day of January, 2018.

Keith T. Giagnorio
Village President

Attest:

Sharon Kuderna
Village Clerk

**VILLAGE OF LOMBARD
CONTRACTOR'S CERTIFICATION**

_____, having been first duly sworn, depose and states as follows:

I am the _____ (Officer or Owner of Company)
_____ (Title) for _____ (Name of Company)

(the "Contractor"), which has submitted a proposal for 2018 SCADA System Hardware Upgrades to the Village of Lombard and, having personal knowledge of the matters certified to herein, and being authorized by the Contractor to make the certifications set forth herein, hereby certifies that said Contractor:

1. has a written sexual harassment policy in place, in full compliance with 775 ILCS 5/2-105(A) (4);
2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the appropriate revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement;
3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382, and that

(Name of employee/driver or "all employee drivers")

is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules; and

4. is not barred from contracting with any unit of state or local government as a result of a violation of either Section 33E-3 or 33E-4 of Article 33E of the Illinois Criminal Code of 1961.

By: _____
Authorized Agent of Contractor

Subscribed and sworn to
before me this _____
day of _____, 2018.

Notary Public



Proposal

DATE: January 4, 2018

PROJECT: Village of Lombard
SCADA Modifications Phase 3

TO: Lukas Sharp
Village of Lombard

Energenecs is pleased to offer the following scope of responsibility for subject project.

Upgrade the PLCs and Touchscreen Terminals at Remote Sites (See Table):

1. We have created a template for the storm/sewer lift stations using the Allen-Bradley Micrologix 1400 PLC. The ports on the PLC would connect to the new Ethernet radio (existing), touchscreen terminal and existing Modbus power monitor. The existing SLC PLC would be replaced with the Micrologix 1400 PLC with associated I/O.
2. The existing Proface serial touchscreen terminal would be replaced with new Maple Systems HMI5043L color Ethernet terminals that fit in the same cutout.
3. Since the station SCADA panel would be down for rewiring, we would upgrade the DC battery backup system similar to that at Highland Estates and LAW lift stations at the same time.
4. Pricing varies somewhat from site to site and is listed below.
5. The water stations would use similar Micrologix 1400 PLC and replace the SLC rack mounted PLC in-place. The 10" Maple Systems touchscreen terminals were upgraded back in 2010 to the newer model that has both serial and Ethernet ports. Presently, they communicate through the serial port but would be reused to communicate to the new PLC over Ethernet. The water sites have more physical I/O and the programs are more complicated and therefore require more time and cost to upgrade. The cost varies from site to site as listed below.

Upgrade the PLCs at the Civic Center:

1. Once all the remote sites are converted to the new PLCs and radios, the last step is to convert the two PLCs at the Civic Center Master site. These are different from the other sites and required added attention.
2. SCADA Master Polling PLC
 - a. This PLC is the heart of the SCADA system. It initiates the communication to all remote sites and passes data on to the SCADA computer.
 - b. All central water control originates from this PLC.
 - c. This PLC requires more memory and function than the other PLCs and would use the Allen-Bradley CompactLogix PLC in lieu of MicroLogix. This higher end PLC does not have a serial port, but is dependent upon using the Ethernet port.
 - d. Compact Logix series 5380 processor
 - e. The programming language is different than what is used for the SLC PLCs and the Micrologix PLCs and therefore requires added programming time. Data passed to the computer is also addressed differently.



3. Civic Center Pump Station PLC

- a. This PLC requires the most I/O of all water sites and is locally connected to the Master Polling PLC at the site over Ethernet. This larger amount of I/O exceeds the amount the Micrologix 1400 PLCs can handle, therefore, we would use the larger CompactLogix PLC here.
- b. Compact Logix series 5380 processor
- c. The upgrade of this PLC should be done at the same time the Master PLC is done.

Site Breakdown

Site Name	Cost	Notes
108 Storm	\$6,000	Replace PLC with new AB 1400, New 4" HMI and re-write of HMI program
48 Storm (Highland Monitoring)	\$7,890	Replace PLC with new AB 1400, New 4" HMI and re-write of HMI program
Garfield LS	\$3,200	Add UPS circuit, migrate to Ethernet coms, Re-use 4" HMI; Modify Hand Control
Grace & Central LS	\$11,800	New PLC, UPS circuit, migrate to Ethernet coms, New 4" HMI and re-write of HMI program; Modify Hand Control
Highland Estates LS	\$3,200	Add UPS circuit, migrate to Ethernet coms, Re-use 4" HMI; Modify Hand Control
Sunset Knolls (Harrison/Rt 53) LS	\$11,800	New PLC, UPS circuit, migrate to Ethernet coms, New 4" HMI and re-write of HMI program; Modify Hand Control
Terrace View Stormwater	\$3,200	Add UPS circuit, migrate to Ethernet coms, Re-use 4" HMI; Modify Hand Control
North PAS and standpipe	\$15,400	Add upgrade cost to this contract - site needs to remain; New 10" HMI and re-write of HMI program
Civic Center Master SCADA panel	\$35,000	New Compactlogix PLC
Civic Center FLO-LO panel	\$36,900	New Compactlogix PLC, New 10" HMI and re-write of HMI program; Does not include pump monitoring
Total	\$134,390	



Terms & Conditions

PURCHASE ORDER FORMS

Orders submitted on BUYER'S purchase order forms will be accepted only with the express understanding that no statements, clauses or conditions contained in said order form will be binding on the SELLER if they in any way modify the SELLERS Terms & Conditions of sale.

PRICES

All prices are F.O.B. factory unless expressly stated otherwise. **Prices DO NOT include sales, excise, municipal, state or other government taxes.**

ACCEPTANCE

Acceptance of a quotation, whether by a separate purchase order or by other means, shall constitute an acknowledgment of the quotation as written and an acceptance of the Terms & Conditions hereof.

CREDIT APPROVAL

The credit terms specified on the face hereof are subject to SELLERS continuing approval of BUYERS credit and if, in SELLERS sole judgment, BUYERS credit or financial standing is so impaired as to cause SELLER in good faith to deem itself insecure, SELLER may withdraw the extension of credit and require other payment terms.

FORCE MAJEURE

Seller will not be liable for failure to deliver or perform, for any delay in the performance of orders or contracts, or in the delivery or shipment of goods, or for any damages suffered by the BUYER by reason of such delay or failure, when such delay or failure is, directly or indirectly, caused by, or in any manner arises from delays of suppliers or carriers or any other cause or causes beyond SELLER'S control.

PAYMENT

95% payment due on shipment of equipment to job site. 5% due on acceptance of the system. Net 30 days on all invoices. 95% payment must be received before start up can be authorized. Any balance owed by BUYER is subject to a 1.5% per month delinquency charge until paid. **FIELD STARTUP SERVICE CANNOT BE AUTHORIZED WITHOUT 95% PAYMENT BEING REMITTED TO SELLER IN ADVANCE OF PERFORMING START UP SERVICES.** If no startup is required, 100% payment is due net 30 days from invoice date. **BUYERS PAYMENT OBLIGATION IS IN NO WAY CONTINGENT UPON BUYERS RECEIPT OF PAYMENT FROM ANY OTHER PARTY.** In addition to all other amounts due hereunder, BUYER shall reimburse SELLER in full for all collection costs or charges, including reasonable attorney fees, which SELLER may incur with respect to the collection of past due amounts from BUYER, including interest on overdue accounts. If BUYER is in default under this or any other agreement with SELLER, SELLER may, at their option, defer performance hereunder until such default is cured. SELLER shall have no obligation to provide factory startup assistance and/or factory training until all invoices (including retentions) for equipment have been paid in full.

WARRANTY

SELLER is a system integrator/manufacturer's representative and, as such, our product guaranty(s) and warranty(s) is set forth in the manufacturer's instruction book or operation and maintenance manual that accompanies each product. SELLER does not offer its customers any warranty or guarantee that would impose upon SELLER greater obligations than those imposed by the manufacturers we represent.

SELLER shall not be liable for any incidental or consequential loss, damage or expense arising directly or indirectly from the use of the product. SELLER shall not be liable for any damages or charges for labor or expense in making repairs or adjustments to the product within the warranty period without prior written approval of SELLER. SELLER shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data or services.



SELLER makes no warranties, expressed or implied, except as set forth in such standard Terms & Conditions of sale in this agreement. No claims of any kind shall be greater in amount than the purchase price of the SELLER'S products in respect of which such claims are made. SELLER is not liable in any event hereunder for any consequential, incidental or liquidated damages or penalties. **IN ANY CASE SELLER SHALL NOT BE LIABLE FOR FIELD WORK BY STAFF OTHER THAN THE SELLER UNLESS EXPRESSLY AUTHORIZED IN WRITING, IN ADVANCE, BY THE SELLER. THIS IS IN SPECIFIC REGARD TO BACK CHARGES.**

BUYER agrees to reimburse SELLER for ALL expenses incurred in servicing a warranty request if the cause of the warranty request is determined to be other than a manufacturer's defect or failure of a SELLER supplied component.

CLAIM PERIODS

All goods are shipped at the risk of the buyer after they have been delivered by SELLER to the carrier. BUYER shall immediately inspect said equipment upon receipt of equipment and any damage must be noted on the freight carriers bill of lading at time of receipt. SELLER is not liable for any shortages or non-conformance unless notified thereof by BUYER within 10 days after BUYERS receipt of said equipment.

CHANGES, CANCELLATIONS, RETURNS

All requests for changes, cancellations and/or returns must have prior written approval and are conditional on manufacturers cancellation/return policies and subject to a restocking and/or service charge for order handling, inspection, reconditioning and repackaging, as required. Authorized returned goods must be packaged and shipped prepaid to manufacturer. Products more than six (6) months old cannot be returned for credit. Terms and conditions stated herein shall also govern and be binding to all BUYER requested/approved change orders.

SELLER shall retain a security interest in the equipment until the full purchase price has been paid. BUYER'S failure to pay any amounts when due shall give SELLER the right to possession and removal of the equipment at any time upon giving at least ten (10) days prior written notice. SELLER'S taking of such possession shall be without prejudice to any other remedies SELLER may have. Title to the equipment shall transfer to the BUYER upon shipment from SELLER.

SUBMITTAL DRAWINGS & OPERATION/MAINTENANCE MANUALS

Submittal drawings and operation & maintenance documentation is provided in accordance with plan documents.

**THE SELLER RESERVES THE RIGHT TO REVIEW AND REVISE THIS PROPOSAL
AFTER THIRTY DAYS FROM ISSUANCE.**

By: Energenecs, Inc.

Jared Feider

I accept this proposal and all terms thereof:

Accepted: _____

Title: _____

Date: _____ PO #: _____