

Short Description of	Design, Program, Installation and Commissioning of the SCADA
Goods/Services	System at the Verona Landfill

Date	10/24/19
Department	Waste and Renewables
Name	John Welch
Email	welch@countyofdane.com
Phone	608-516-4154
Purchasing Agent	Pete Patten

Vendor Name	EvoLogic
Vendor MUNIS #	23394
Requisition #	2162
Requisition Year	2019
Total Cost	\$ \$41,480.00
Vendor Quote Attached	⊠ Yes – Quote is required to be attached.

Provide a detailed description of the goods/services intended to be purchased:		
This purchase would be for a new SCADA system (controls system to manage complex mechanical systems) to provide monitoring, alarm dial out, and automatic report generation for various field equipment located at the Dane County, Verona landfill. SCADA systems use a very unique computer code and programming to assist in simplifying operations. This purchase would include a tower PC to run the SCADA software and a MicroLogix PLC to serve as a gateway for process signals and equipment communication.		



Procurement Exception List			
☐ Emergency Procurement			
Only one vendor possesses the unique and singularly available ability to meet the Department's requirements			
☐ Unique and specific technical qualifications are required			
☐ A special adaptation for a special purpose is required	b		
☐ A unique or opportune buying condition exists			
Provide a detailed explanation as to why the competitive bidding (RFB/RFP) process cannot be used. Also provide a detailed justification in relation to the Procurement Exception chosen:			
By utilizing EvoLogic to provide the new SCADA system at the Verona Landfill, it will provided consistency and simplify operations because EvoLogic installed the SCADA system, that is currently being used at the Rodefeld Landfill on Highway 12/18. EvoLogic has extensive knowledge of the site, equipment vendors, and equipment operating conditions. This would allow Dane County to have a uniform SCADA system across both landfills.			
Bid Waiver Approval (Purchasing Use Only)			
Under \$36,000 Controller Approval	Date		
\$36,000 or over Personnel & Finance Committee Approval Date			



Dane County Verona Landfill

Proposal #: 2019-E066

Verona Landfill, SCADA System

This estimate is for a new SCADA system to provide monitoring, alarm dial out, and automatic report generation for various field equipment located at the Dane County, Verona landfill. This estimate includes a tower PC to run the SCADA software and a MicroLogix PLC to serve as a gateway for process signals and equipment communication.

Hardware:

- (1) Dell, Precision 3630 PC.
 - Windows 10 Professional operating system.
 - o 1 TB solid-state hard-drive.
 - o Intel, i5-8600 processor, 16 Gig RAM.
 - o 3 * NIC adapters.
 - o 22" monitor, USB keyboard, USB mouse.
 - o 3-Year Dell ProSupport Warranty, next business day service.
- (1) Software Suite:
 - Microsoft: Office, home and business software.
 - o Rockwell Automation: FactoryTalk View SE, 15 screens.
 - o Rockwell Automation: RS Logix 5000 mini.
 - o Rockwell Automation: RS Logix 500 starter.
 - SyTech: XL Reporter software with e-mail option.
 - o WIN-911, alarm dial out software.
 - o KEP-Server / RS Linx Gateway software, as necessary to facilitate communication to field devices.
 - TeamViewer: Remote access software (1-year subscription).
 - o Acronis: True-Image, PC imaging software for system backup.
- (1) Allen-Bradley: MicroLogix 1400 PLC.
 - o (20) Discrete input channels.
 - o (12) Relay output channels.
 - o (8) Universal analog input channels.
 - o RS-485, Modbus serial interface.
- Additional hardware will be provided for a fully functional SCADA system. Additional items may include, but are not limited to: Wires, cables, Ethernet switch, DC power supply, short circuit protection, labels, and accessories.

Technical Description:

- This estimate includes:
 - o All hardware listed above.
 - o All labor for system design, programming, installation, and commissioning.
- This new SCADA system will interface with all existing site hardware, including but not limited to: West
 mitigation PLC (A-B CompactLogix), North mitigation PLC (Modicon Tweedo, via radio), engine PLC (A-B
 MicroLogix), flare controller (Yokogawa chart recorder), engine exhaust temperature transmitters, engine power
 meters, and landfill gas flow meter.
- The new SCADA PC and software will replicate and replace all functions of the existing SCADA PC. The new operator interface application will be written in FactoryTalk View SE format and will include:
 - o Real-time display of engine panel boards, blower statuses, flare status, analog data values, and other available system data.
 - o Preconfigured and customizable trends for viewing historical data.
 - System alarms, including but not limited to: Engine 1 breaker off, Engine 2 breaker off, Main breaker
 off, temperature transmitter out of range, flow transmitter out of range, West mitigation system fault,
 North mitigation system, flare fault, communication faults, and others as required.
 - o Alarm dial-out will support alarm acknowledgement, call escalation, and scheduled suppression for the hours between 10pm and 7am.
 - o A password protected configuration screen used to modify system settings and set points.
 - o A VNC link to provide a real-time graphical link to the West mitigation blower HMI screen.
 - o A connection for remote monitoring via TeamViewer software.
- The new SCADA PC will use XL Reporter software to automatically generate system reports.
 - o All reports will include daily and monthly tabs with data values recorded at 15-minute intervals.
 - o Reports will be created in MS Excel format, and will be e-mailed to a pre-defined list of recipients.
 - Three separate reports will be generated:
 - The engine/flare report will include: Date, time, kW, exhaust temp, generator run status, gas flow, totalized gas flow, gas temperature, flare temperature, pilot temperature, and flare run status.
 - The North mitigation and West mitigation reports will each include: LEL values, LEL hit counts, blower run status, blower hours, and blower cycle counts.
- This estimate includes on-site installation and commissioning for all new SCADA programming and hardware. The new PC hardware will be field installed in place of the existing PC.
- All programs will incorporate documentation and other best-practices.

Conditions:

- The customer is responsible for provision of a phone line and broadband internet service to the SCADA PC.
- This estimate excludes:
 - o Updates to system electrical schematics.
 - o Changes to the functionality or sequencing of existing PLCs, HMIs, or other field systems.
 - o UPS equipment (existing UPS will be re-used for the new SCADA PC).
 - Hardware for the North mitigation blower system. North mitigation PLC hardware migration can be purchased from a separate estimate.
- New devices provided by this estimate will NOT be certified for installation in an electrically classified or hazardous location.

Pricing:

Price is valid for 30 days and does not reflect any applicable taxes. Prices quoted are T&M, not to exceed the amount listed.

Hardware: PC, software, ML 1400 PLC, etc	\$22,100.00
Labor: Design, Program, Installation and Commissioning	\$21,860.00

Total: \$41,480.00

Billing and Payment:

Net 30 days upon commissioning.

Delivery:

Project completion is estimated at 6 weeks from the date of written acceptance.

Warranty:

• EvoLogic will guarantee all work and materials for a period of 12 months from the date of delivery. A detailed warranty statement is available upon request.