



Lee County
SOUTHWEST FLORIDA

ATTACHMENT

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**INTEROFFICE MEMORANDUM
FROM
PUBLIC WORKS
UTILITIES**

Date: May 9, 2012

To: Robert Franceschini
Division of Procurement Management
Director

From: Douglas Meyer
Lee County Utilities Electrical
Systems Manager

SUBJECT: SCADA Pack Sole Sourcing Selection Process

History

In 1990, Lee County Utilities began using Lee County's Public Safety Motorola trunking system for monitoring lift stations, water pumping stations, and various remote sites. The project provided LCU staff the ability to monitor and control remote utility sites from a central location. The existing system relied on customers to call in an alarm event, but the new trunking system allowed for staff to be notified instantly both through a paging system and alarms at a centralized location.

Current Equipment Condition

Over the past 20 years, Motorola has updated their technology four (4) times, which caused LCU's current units to become obsolete and obtaining parts nearly impossible.

Lee County Public Safety owns and maintains the trunking system and they are moving forward with the conversion of an analog system to a digital system. Motorola has no solution for the digital communications and does not appear to be developing these systems in the near future. Staff has met with the Motorola representatives and they assure staff that the County has at least five to 10 years to complete the transition before they will no longer support the analog equipment.

LCU staff coordinated with the Public Safety staff and all agree that migrating to digital technology will benefit the County and protect long-term investments.

Benefits of Standardization

Lee County Utilities has strived to be the most efficient and effective organization by standardizing equipment and utilizing high quality products that meet industry standards. Standardizing (sole sourcing) equipment allows for ease of stocking only one brand, interchangeable, buying in bulk, systems able to integrate with each other, and ease of staff training and establishing in-house expertise.

Process Used for Selection of SCADA Pack Telemetry Systems

Staff anticipated the migration from analog communication to digital communications systems and tested several products and level controllers over the last three years. To ensure that a comprehensive review was achieved, the process included staff members that had expertise in each of the areas that would be monitored by the new system along with the staff that maintains the equipment.

Team members included:

- John Post (Electrical Supervisor)
- Hector Vega (Instrumentation Superintendent)
- Kecia Angelo (Telemetry Technician)
- Doug Meyer (Electrical Systems Manager)
- Dwayne Tagg (Senior Utilities Manager)
- Richard Sims (Utilities Manager)
- Mikes Maillakakis (Former Utilities Engineer)

Staff tested several manufactures, including:

- Mission Control
- Multitrode
- Digital Controls
- Devar Controls
- Allen Bradley
- Scada Pack
- Koyo
- Modicon

The manufacturer's products were tested for the following critical criteria:

- Ability to withstand highly corrosive environments and varying temperatures
- Reputable company with long history of meeting water/wastewater industry standards
- Non-proprietary systems
- Secure communications
- Low maintenance needs
- Accessibility of parts and replacement equipment
- Ease of programming and success in other similar applications

Selection Process Outcome

All of the products tested had certain strengths and weaknesses, but the SCADA Pack Telemetry Systems stood out as the most comprehensive and reliable equipment meeting the critical criteria and needs of the application. Some of the features which led to this selection were as follows:

- Conformal coating to protect the equipment in harsh environment
- Manufactured by a large corporation that appears stable and not likely to go out of business
- Cost of the unit is about 50% of the current Motorola unit
- Phases out the third party integrator and leaves the control under Lee County
- Decreased cost to developers and contractors
- Ethernet communications, which is the world standard
- In the near future migration of our treatment plant software Citect into clear SCADA, which are both owned by Schneider Electric and will reduce software support costs
- Ease of programming
- Report by exception, which is very critical to operations. Report by exception means that the remote site does not have to be polled to report a problem. When a problem exists the remote site will take precedents and send the alarm immediately.

- Within several years Schneider Electric will introduce this product through their premier distributors and end the sole source provider status
- Lee County local support for this product by Power Rich Systems

Program Implementation

The Utilities CIP includes funding for a five to ten year equipment replacement program. Currently the Utilities system includes approximately 400 units that are either obsolete or will become obsolete within the next ten years. First, staff will purchase the software for approximately \$89,000. The estimated cost per unit provided by Power Rich Systems is approximately \$2,570 installed in an existing panel and \$6,875 installed in a separate panel. Replacement units will most likely be installed by contractor services at an estimated cost of \$500 per unit.

The following is the cost summary included in the LCU five year CIP:

	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Units in Existing Panel (A)	25	25	25	25	25
Units in Separate Panel (B)	20	30	30	30	30
Software	\$89,328				
Scada Pack (A)	\$ 64,250	\$ 64,250	\$ 64,250	\$ 64,250	\$ 64,250
Scada Pack (B)	\$ 137,500	\$ 206,250	\$ 206,250	\$ 206,250	\$ 206,250
Contractor	\$ 22,500	\$ 27,500	\$ 27,500	\$ 27,500	\$ 27,500
Total	\$ 313,578	\$ 298,000	\$ 298,000	\$ 298,000	\$ 298,000