



Union County Public Works
500 North Main Street
Suite 600
Monroe, NC 28112

T. 704-296-4212

www.unioncountync.gov

Memo

To: **Brian Matthews, Assistant County Manager**

CC: **Aubrey Lofton, Director of Planning and Resource Management (UCPW)**

From: **Hyong Yi, Public Works Administrator**

Subject: **Automated Meter Infrastructure contract**

Date: **February 19, 2021**

Union County Public Works is proposing a sole source contract solution for procuring Advanced Metering Infrastructure (AMI) for upgrading our water meters and infrastructure. This proposal is based on two requirements for “Exceptions to State Competitive Bidding Requirements” for North Carolina Local Government:

1. Sole Source is available when standardization or compatibility is the overriding consideration: UCPW seeks to facilitate the standardization of equipment and systems and long-term operational simplicity by having only one system and standard.
2. Product is available from only one source, due to the current standard set with RFP: Specification compatibility – only one bidder met all the specifications listed in the RFP.

The purpose of this memo is to outline the events and decisions that steer towards a proposed sole source procurement of Advanced Metering Infrastructure (AMI) for Union County Public Works water meters and the fixed-network meter reading infrastructure.

Two reasons justify a sole source procurement:

1. Standardization and Compatibility

In 2019, Union County Public Works, in accordance with its meter replacement program strategy, published an RFP for Cold Water Meters (No. 2019-064). This was in response to an aging meter infrastructure and significant compatibility issues with Public Works’ standard electronic read transceiver (ERT) and register components by two legacy meter brands.

Two specifications in particular were required in the RFP:

1. The new meter and ERT had to conform to current Advanced Meter Reading (AMR) Radio Based Mobile Reading Software, and be compatible with the existing iTron AMR equipment and/or meter reading system that was in use at the time. The purpose of this specification was to ensure that only one AMR based reading system would be required for meter reading purposes without replacing all existing infrastructure.
2. The new meter and ERT could convert to a fixed network through software (AMI) at a future point in time.

The subsequent result of the competitive RFP was the selection and formation of a contract with Sensus for meters, and a new standard for AMR reading software, FlexNet, also by Sensus. The new reading software would be used for the new Sensus meters and ERTs, but could also access and read existing meters (that weren't due for replacement) which had iTron AMR ERT devices. This satisfied the first requirement specified above, that only one reading system would be required to read meters.

The second specification was also satisfied with the selection of the Sensus product. The new meter and reading system (FlexNet) could easily convert to an AMI fixed network system. This provided a cost-efficient opportunity to migrate to AMI, by avoiding a complete meter and ERT replacement in an AMI transition.

2. One Source for Product

The Sensus meter, ERT, and reading system standard was established for Public Works in the competitive bid for Cold Water Meters RFP on September 3, 2019, when the Board of County Commissioners voted to "approve Sensus Metering System as the County's standard metering system...". Sensus meter devices and FlexNet software were chosen in part, for its compatibility to the current meter infrastructure, and ease of entry and conversion to a future AMI program.

One of the primary components to consider for a transition to AMI is the network infrastructure. Several scenarios were outlined in an AMI Feasibility Analysis completed in October 2018 conducted by a consultant, MeterSYS, one of which was a "traditional licenses frequency", which consisted of a network of towers, base-stations, collectors, and a licensed MHz band frequency. Several vendors met this preferred solution and criteria, including Sensus.

However, only one vendor has the capability to create an AMI fixed network that's compatible with Public Works' current AMR/AMI-ready meter infrastructure and Sensus meter standard. That company is Sensus.

Conclusion



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It's important to reiterate that other AMI solutions exist and are available for selection in a competitive bidding process. However, none of these solutions could adapt to the current meter infrastructure and Sensus meter standard that Union County Public Works has in place. This means that in addition to the purchase of a fixed network, using an alternative vendor could potentially require a complete replacement of more than 56,000 meters or meter devices, registers, and/or ERTs, at an additional cost of millions of dollars of expense and lengthening the project timeline by creating unnecessary work to replace functioning meters. For these reasons, UCPW's preferred procurement method is to sole source the acquisition of the meters, sensors, and/or any other related infrastructure for this project.

If you would like to discuss further, I am happy to do so.

Attachments:

1. A memo from Sensus confirming that the company is the sole source manufacturer of radio components (our standard), and the primary license holder of the 900mHz narrowband spectrum used for the AMI fixed network (our preference).
2. A memo that acknowledges Ferguson Waterworks as the exclusive Authorized Distributor of Sensus products for the state of North Carolina. The forthcoming AMI contract will list both Sensus USA and Ferguson Waterworks as vendors for the AMI project.

April 24, 2020

To: Union County Government Center
Attn: Aubrey Lofton, PE
500 North Main Street
Monroe, NC 28112

Re: Sensus FlexNet sole source

Dear Ms. Lofton,

This letter serves as acknowledgement that Sensus is the sole source of private licensed frequencies within the 900mHz narrowband private communications system (MAS) spectrum, used for AMI, in the Union County/Monroe, NC area. Furthermore; Sensus is the only vendor to provide an AMI endpoint with a 2-watt transceiver and an AMI base station with a 16-watt transceiver. Sensus is both the manufacturer of the radio components and the primary license holder of the MAS narrowband spectrum used to enable the system.

Sincerely,

A handwritten signature in black ink that reads "Tom Galuska". The script is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Thomas Galuska
Senior Product Manager
Sensus, USA
Tom.galuska@xyleminc.com

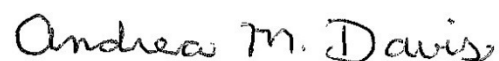
May 02, 2019

To Whom It May Concern:

Sensus, USA is pleased to announce that Ferguson Waterworks is the exclusive Authorized Distributor of Sensus products for the state of North Carolina. Please contact Ferguson Waterworks for all of your Sensus needs. Purchasing Sensus, USA products from the authorized distributor for your area ensures that your products will be properly supported and warranted.

We look forward to the opportunity of providing your firm with quality water measurement equipment and support in the near future. Please feel free to contact me at andrea.davis@xylem-inc.com regarding this or any other matter.

Sincerely,

A handwritten signature in black ink that reads "Andrea M. Davis".

Andrea Davis
Sensus, USA
Director, Channel Marketing