



Legislation Text

File #: 17-00064, **Version:** 1

TO: Mayor Robert J. O'Connor

FROM: David E. Schumacher, P.E.; Superintendent of Water Production

DATE: February 14, 2017

SUBJECT:

A Resolution Authorizing the Replacement of Programmable Logic Controllers for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2 for the Water Production Division.

PURPOSE:

To obtain City Council authorization for Tri-R Systems Incorporated (Tri-R), DeKalb, IL, to provide the technical services for replacing and upgrading the programmable logic controllers (PLCs) and related hardware components for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2. In addition, all necessary related programming and system integration with the existing water treatment plant (WTP) SCADA system is to be completed.

BACKGROUND:

In 2016 the same project was completed for Filter Nos. 1 - 8 in order to maintain reliability of the WTP filtration process, a critical step in the overall treatment of surface water from the Fox River. The subject computers/PLCs to be replaced have been constantly operating since they were installed as part of the WTP expansion in 2002 and are nearing obsolescence. With the upgrades, replacement parts will be readily available should future repairs be required.

DISCUSSION:

The labor portion of the project, both installation and programming/integration, is highly technical and rises to the level of professional services. The proposals provided by Tri-R are all inclusive of those professional services as well as providing all needed hardware components at a total cost of \$48,050.00. Purchasing delicate and specific electronic components and assuming that they will function together correctly without overall coordination can lead to ongoing deficiencies. Thus, it is believed to be in the City's best interest for one entity to be responsible for not only the successful integration of all the individual components into an updated, functioning system, but to also have the same entity be responsible for providing the exact required components.

Tri-R has a well-established and successful history in performing similar work for the Water Production Division (WPD) and is uniquely qualified to perform such work as an established systems integrator. As such, the WPD recommends Tri-R for completion of this work to ensure a successful outcome.

The City Council may approve this without competitive bidding under Section 2-335(a)(6) of the City Code of Ordinances with a three-fifths majority of the members holding office.

This course of action is recommended for the following reasons:

1. It is not completely appropriate to characterize this work as "professional services." While the labor portion of Tri-R's work under the proposed agreement is highly technical and will rise to the level of professional services, the proposal also provides for procurement of the hardware and software components required.
2. Administering this work as a "turnkey" project offers two distinct cost-saving opportunities. First, detailed hardware and software specifications normally required for competitive bidding would not be required, reducing engineering and contract administration expenses significantly. Second, programming and integration of all the hardware and software components requires extensive knowledge of the equipment and its associated operating system. Because of Tri-R's experience with and extensive knowledge of the existing system and proposed components, they are uniquely qualified to perform this work in a cost-effective manner.

Funding was made available as a 2017 Decision Package - "PLC Replacement for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2", and funds are available in the 2017 City Budget in Account No. 510-4058-511-38-01.

IMPACT STATEMENT:

Not completing the PLC upgrades may jeopardize future process control of the subject systems.

RECOMMENDATIONS:

That a resolution authorizing the replacement of programmable logic controllers for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2 by Tri-R in the not to exceed lump sum amount of \$48,050.00 be approved by the Mayor and City Council. It is further recommended that this matter be submitted to the Buildings, Grounds, and Infrastructure Committee for review and recommendation.

cc: Alderman Garza, Chairman
Alderman Johnson
Alderman Mesiacos
Alderman Bohman, Alternate



CITY OF AURORA, ILLINOIS

RESOLUTION NO. _____
DATE OF PASSAGE _____

A Resolution Authorizing the Replacement of Programmable Logic Controllers for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2 for the Water Production Division.

WHEREAS, the City of Aurora has a population of more than 25,000 persons and is, therefore, a home rule unit under subsection (a) of Section 6 of Article VII of the Illinois Constitution of 1970; and

WHEREAS, subject to said Section, a home rule unit may exercise any power and perform any function pertaining to its government and affairs for the protection of the public health, safety, morals, and welfare; and

WHEREAS, the Water Production Division seeks to replace and upgrade the programmable logic controllers and related hardware components for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2 at the City's water treatment plant; and

WHEREAS, upgrading the control system will assure reliable and continuous operation with new components that are available and replaceable if needed; and

WHEREAS, Tri-R Systems Incorporated provides professional services related to complex and technical control systems integration, has worked successfully for the Water Production Division on similar tasks, and is subsequently recommended to provide hardware procurement, installation, and programming of various components associated with this project; and

WHEREAS, proposals have been received from Tri-R Systems Incorporated to perform the necessary work; and

WHEREAS, under Section 2-335(a)(6) of the Aurora Code of Ordinances, any municipal work or public improvement, when the expense thereof will exceed twenty-five thousand dollars (\$25,000.00), may be undertaken or constructed by contract or agreement without advertising for bids if authorized by a vote of three-fifths (3/5) of the members of the city council then holding office; and

WHEREAS, budgetary authority is granted and funds are available for this work in the 2017 City Budget in Account No. 510-4058-511-38-01;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Aurora, Illinois, as follows: that its Procurement Director be and is hereby authorized to issue purchase orders to Tri-R Systems Incorporated for replacement of Programmable Logic Controllers for Filter Nos. 9 - 12, Claricone 5, and Sample Room 2 at the Water Treatment Plant, in the not-to-exceed lump sum amount of \$48,050.00.