THE CITY OF ASHEVILLE

Staff Report

Council Meeting Date: July 26, 2022

Subject: Advanced Metering Infrastructure (AMI) Project

Staff Resource(s): David Melton, Director of Water Resources

Action Requested: The consideration of the following six resolutions approving the sub-parts that are contingent for the completion of the AMI project - (1) Aclara - Statement of work (installation) three year contract; (2) Aclara - Software as a Service (SaaS) and Preventative Maintenance five year contract with annual option to renew; (3) WaterSmart - Customer Portal five year contract with annual option to renew; (4) Miller Supply Company sole source approval for Diehl meters; (5) Aclara - sole source approval for AMI communication equipment; and (6) Cavanaugh & Assoc. - Project Management three year contract; and a budget amendment in the amount of $8,792,605 from debt proceeds to fully fund the installation contract below with Aclara.

Background:

- The City of Asheville's water metering system currently consists of approximately 63,000 meters that are read mainly using drive-by automated meter reading (AMR) radio technology.
- The current meter reading equipment was installed from 2009-2012.
- The AMR equipment has reached the end of its lifecycle and is beginning to fail.
- This issue required staff to begin the process of implementing a long-term strategy for metering asset management.
- During 2018-2019 Water Resources collaborated with ITS to form a Customer Metering Task Force.
- The task force developed a customer metering strategic plan with technical support from Cavanaugh and Associates.
- The business case resulted in the recommendation as follows:
    - A wholesale replacement of all two inch (2") and smaller water meters with new meter assemblies.
    - Implementation of a fixed-base network Advanced Metering Infrastructure (AMI) meter reading system.
    - Retrofitting meters three inches (3") and larger with the AMI reading system.
- The recommended mechanism for product selection and installation is utilization of a third-party contract manufacturer and installer.
- A request for proposals (RFP-298) was issued on July 7, 2021.
- Aclara was selected as the preferred responsive provider through a "value for money" scoring matrix.
- Aclara will partner with Diehl meters for metering equipment and Petal Valve, Inc. for water meter installation.
- Cavanaugh and Associates will provide project management services throughout the entirety of the installation.

- Sub-parts of the resolution are as follows:

    1. **<u>Aclara - Statement of work (installation) three (3) year contract.</u>**
        - This contract is for the installation of communication infrastructure, water meters, water meter retrofits, water meter enclosures, and ancillary plumbing.
        - This contract is in the amount of $19,124,262.57 for AMI system, $3,778,717.94 for meter enclosure replacements, and $1,090,856.50 for ancillary plumbing for a contract total of $23,993,837.01.
        - Staff is recommending a 20% contingency in the amount of $4,798,767.40 for a total amount of $28,792,604.41.
        - This contract will be funded through a low interest loan that will be converted to a debt issuance after completion of the project.

    2. **<u>Aclara - Software as a Service (SaaS) and Preventative Maintenance five (5) year contract with annual option to renew.</u>**
        - This contract is for the Aclara software (communication) platform whereby the water meters relay information to and from the database, and also includes preventative maintenance on the data collection equipment.
        - This 5-year contract is in the amount of $827,852.11 for an average yearly cost of $165,570.42, and will be funded through the Water Resources Operational Budget.
        - The total contract amount for renewal during years 6-20 is $3,694,404.37.

    3. **<u>WaterSmart - Customer Portal five (5) year contract with annual option to renew.</u>**
        - WaterSmart is a cloud-based customer engagement and analytics platform that allows customers to better monitor and manage water usage.
        - This 5-year contract is in the amount of $577,495.39 for an average yearly cost of $115,499.08, and will be funded through the Water Resources Operational Budget.
        - The total contract amount for renewal during years 6-20 is $2,011,826.94.

    4. **<u>Miller Supply Company sole source approval for Diehl meters.</u>**
        - Following the completion of the three (3) year Aclara installation contract, water meters will continue to be installed throughout the water service area by the City, to accommodate system growth as well as future replacement of meters.
        - Diehl meters will continue to be installed for compatibility, and for best practice to standardize equipment. Diehl meters are only available through the local authorized distributor, Miller Supply Company.
        - Pricing will be calculated at the time of purchase based on the following index: *Producer Price Index PCU334514334514 Totalizing fluid meters and counting devices mfg.*
        - Sole source arrangement will be applicable for the life of the meter system.

    5. **<u>Aclara - sole source approval for AMI communication equipment.</u>**
        - Following the completion of the three (3) year Aclara installation contract, there are 2 types of communication equipment that will need to be sole sourced from Aclara in the future.
        - The 1st type is a “Meter Transmission Unit” (MTU). As these future water meters are installed to accommodate growth or replacement needs, each meter will require a MTU to communicate with the AMI network.
        - The 2nd type of communication equipment is a “Data Collector Unit” (DCU). Roughly 67 DCUs will be installed across the water service area as part of the

Aclara installation project, and these DCUs are the 'receivers' for the data transmitted from each water meter.
    - The City will need to purchase additional DCUs in the future, to accommodate system growth or replacement needs. Any MTUs or DCUs must be purchased from Aclara, for AMI system compatibility. Pricing will be calculated at the time of purchase based on the following index: *Producer Price Index PCU3342933429 Communications Equipment Manufacturing.*
    - Sole source arrangement will be applicable for the life of the meter system.

6. **<u>Cavanaugh & Assoc. - Project Management three (3) year contract.</u>**
    - This contract is for management of the installation of infrastructure, IT integration and end-to-end testing, communications support, process-mapping for new AMI data, field inspection support, and other project management functions.
    - This contract is in the amount of $1,796,612.85, and will be funded through the existing Water Resources Capital Improvement Budget.

Vendor Outreach
- A request for proposals (RFP-298) was issued on July 7, 2021.
- Aclara was selected as the preferred responsive provider through a "value for money" scoring matrix.
- Aclara has employed a MWBE sub-contractor, Pedal Valve Inc., as the meter installer.
- Within the request for proposals the proposers were required to provide a cloud based customer engagement that would be compatible with the City's updated metering infrastructure as part of their responsive submissions, Aclara provided WaterSmart Software, Inc. as the system that would be compatible with the updated water system.
- Diehl was selected as the vendor most compatible with the City's Water system and would provide standardization of the updated system.
- Thus the Water Resources is requesting a sole source purchase for purchase of Diehl meters
- Cavanaugh and Associates was selected through a Request for Qualifications and they are currently under contract with the City for On-Call Professional services, executed in 2020.

Council Goal(s):
- A Financially Resilient City
- A Well Planned and Livable Community

Committee(s):
- N/A

Pro(s):
- Replacement of failing infrastructure
- Reduces the need to deploy vehicles to read meters, perform re-reads, etc.
- Allows customers to interface and manage water usage, detect leaks, etc.
- Provides a smooth transition to monthly billing

Con(s):
- None

Fiscal Impact:
- The Fiscal Year 2021-22 Water Capital Improvement Program (CIP) included a $20.0 million placeholder budget for the Advanced Metering Infrastructure (AMI) Project.
- As noted above, the total cost of the installation contract with Aclara, including contingency, is $28,792,604.41.
- A budget amendment in the amount of $8,792,605 to fully fund this contract is included with this Council action.

- The installation portion of the AMI Project will be funded by the issuance of debt, with debt service payments included in future Water Resources Operating Budgets.
- The project management three (3) year contract in the amount of $1,796,612.85 will be funded with previously approved pay-go Water CIP funding.
- Any first year costs associated with the Software as a Service (SaaS) and Preventative Maintenance contract and the WaterSmart - Customer Portal contract will be absorbed within the existing Water Resources Operating Budget.
- Full annual amounts for those contracts will be included in future Water Resources Operating Budgets.

Suggested Motion:

- Motion to adopt six (6) resolutions authorizing the City Manager to enter contracts with Aclara Technologies, WaterSmart, and Cavanaugh and Associates, P.A.; approve Miller Supply Co. as the sole source provider of Diehl water meters; and approve Aclara as the sole source provider of MTU and DCU communication equipment in connection with and for completion of the Advanced Metering Infrastructure Project; and a budget amendment in the amount of $8,792,605 from debt proceeds to fully fund the installation contract below with Aclara.

Attachment(s):

- Resolutions
- Budget Amendment

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH ACLARA TECHNOLOGIES, LLC FOR INSTALLATION THE ADVANCED METERING INFRASTRUCTURE (AMI)PROJECT

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville ("City") has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Aclara Technologies, LLC was selected through as the best proposer through a request for proposals conducted by the City in March 2022;

WHEREAS, Aclara Technologies will provide installation services for water infrastructure for the Advanced Metering Infrastructure (AMI) Water Resources project ;and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a three (3) year contract with Aclara Technologies, LLC for installation services for the Water Resources Department Advanced Metering project.The City Manager is authorized to make any amendments or modifications to this contract not to exceed the contract total of $23,993,837.01, with a 20% contingency of $4,798,767.40, for a total contract value not to exceed $28,792,604.41.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH ACLARA TECHNOLOGIES, LLC FOR SOFTWARE AS A SERVICE “SaaS” AND PREVENTATIVE MAINTENANCE OF INSTALLED EQUIPMENT FOR THE ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville (“City”) has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Aclara Technologies, LLC was selected through as the best proposer through a request for proposals conducted by the City in March 2022; ;and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a five (5) year contract with Aclara Technologies, LLC for Software as a Service (SaaS) and Preventative Maintenance for the Water Resources Department Advanced Metering Infrastructure project.The City Manager is authorized to execute renewal(s) and make any amendments or modifications to this contract not to exceed the contract total of $4,522,256.48.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH WATERSMART SOFTWARE, INC. FOR CLOUD BASED CUSTOMER ENGAGEMENT

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville ("City") has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Aclara Technologies, LLC was selected through as the best proposer through a request for proposals conducted by the City in March 2022;

WHEREAS, WaterSmart Software, Inc. was provided by Aclara Technologies as the company that will be able to provide cloud based customer engagement for the newly installed meters as required by the Request for Proposals; and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a five (5) year contract with WaterSmart Software, Inc. for cloud based customer engagement services for the Water Resources Department.The City Manager is authorized to execute renewal(s) and make any amendments or modifications to this contract not to exceed the contract total of $2,589,322.33.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE SOLE SOURCE PURCHASE OF DIEHL WATER METERS FROM MILLER SUPPLY CO. FOR THE ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT

WHEREAS, pursuant to N.C.G.S. §14-129(e)(6) purchases for apparatus, supplies, materials, or equipment are exempt from competitive bidding requirements when standardization or compatibility is the overriding consideration;

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville ("City") has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Diehl provides water meters and equipment that are compatible with the current metering system, and the updates provided Advanced Metering (AMI) project, and will provide standardization across and within the system;

WHEREAS, Diehl meters are not sold directly from the manufacturer, and are required to be purchased through Diehl's local distributor, Miller Supply Co.;

WHEREAS, the use of Diehl meters will allow the City to utilize the most up to date and most compatible, with the City's water system, water meters and equipment; and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a sole source purchase of Diehl Water Meters from Miller Supply Co. for compatibility and standardization of the current and to be updated, through the Advanced Metering Infrastructure (AMI) Project, water system.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE SOLE SOURCE PURCHASE OF COMMUNICATION EQUIPMENT FROM ACLARA TECHNOLOGIES, LLC FOR THE ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT

WHEREAS, pursuant to N.C.G.S. §14-129(e)(6) purchases for apparatus, supplies, materials, or equipment are exempt from competitive bidding requirements when standardization or compatibility is the overriding consideration;

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville ("City") has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Aclara Technologies, LLC ("Aclara") provides Meter Transmission Units (MTUs) and Data Collection Units (DCUs) that are compatible with the current metering system, and the updates provided Advanced Metering (AMI) project, and will provide standardization across and within the system;

WHEREAS, the use of Aclara communication equipment will allow the City to utilize the most up to date and most compatible, with the City's water system, water meters and equipment; and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a sole source purchase of AMI communication equipment from Aclara Technologies, LLC for compatibility and standardization of the current and to be updated, through the Advanced Metering Infrastructure (AMI) Project, water system.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

RESOLUTION NO. 22-_____

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH CAVANAUGH AND ASSOCIATES, P.A. FOR PROJECT MANAGEMENT SERVICES FOR THE WATER RESOURCE DEPARTMENT'S ADVANCED METERING INFRASTRUCTURE PROJECT

WHEREAS, pursuant to N.C.G.S. §160A-312, the City of Asheville ("City") has authority to operate a public enterprise; and

WHEREAS, pursuant to Article 2 of Chapter 160A of the North Carolina General Statutes the City has the authority to enter into contracts for services with other entities; and

WHEREAS, Cavanaugh and Associates, P.A. was selected through a request qualifications for Professional Services, and the City is currently under contract with Cavanaugh and associates for on-call professional services executed in 2020;

WHEREAS, Cavanaugh and Associates, P.A. will provide project management services for the Advanced Metering Infrastructure (AMI) for the City's Water Resources Department; and

WHEREAS, this contract aligns with Council goals for a financially resilient City and a well planned and livable community;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City Manager, on behalf of the City of Asheville, is authorized to execute a three (3) year contract with Cavanaugh and Associates, P.A. for project management services for the Water Resources Department Advanced Metering Infrastructure (AMI) project.The City Manager is authorized to make any amendments or modifications to this contract not to exceed the contract total of $1,796,612.85.

Read and approved this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney

ORDINANCE NO. _____

BUDGET ORDINANCE AMENDMENT

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE

That Section 2 of the City of Asheville FY 2022-23 Budget Ordinance be amended to provide an appropriation of $8,792,605 in the Water Capital Fund as follows:

WATER RESOURCES CAPITAL FUND

Revenues:

Debt Proceeds	$8,792,605

Appropriations:

Contracted Services	$8,792,605

That this ordinance shall be in full force and effect upon the date of final passage.

Read, approved and adopted this 26th day of July, 2022.

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City Clerk Mayor

Approved as to form:

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City Attorney