



City of Stevenson

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To: Stevenson City Council
From: Leana Johnson, City Administrator
RE: Radio Read ("Smart") Water Meters
Meeting Date: November 15, 2018

Executive Summary:

In May council approved a contract with Apollo to conduct an Investment Grade Audit of the city to determine areas of cost savings through energy upgrades or other infrastructure improvements. Some cost savings can be found in upgrading the lighting at City Hall and the bulk of cost savings, including increased revenues, were also found in replacing the water meters to radio read meters. There are three options presented with varying levels of implementation costs, which will be reviewed below.

Analysis:

Thirty meters were removed and tested to determine what the estimated revenue loss was due to malfunctioning meters. In the attached Pro Forma cash flows, the Utility Savings of \$54,987 is a conservative estimate on the revenue the city would gain from replacing all the meters with new meters. The increase for years after year 1 is an estimated 3% general rate increase. The O&M Cost Savings on the Pro Formas represent staff time saved in reading meters and hand-keying data into the software system. While staff will no longer spend time on meter reading, they will remain employed with the city and have their time re-allocated to other projects. While the city will save money on meter reading, the department may not realize cost savings and may see increased productivity.

All three options include an update to the city hall lighting in the amount of \$15,504.

The three options for meter systems are:

AMR Basic – This includes an AMR only meter which means that it can only be read by driving by and does not have the ability to accept firmware updates. The total project cost for installing and implementation is \$524,995. The annual payment estimates listed in the Pro Formas show a 10-year and 15-year schedule. Excluding the O&M cost savings, the project would allow for overall cash-flow increase with the 15-year loan.

AMR Plus – This option includes an AMI ready meter which means that the meter is capable of being read from a fixed base (City Hall) and can accept firmware updates, however the city will read the meters by driving by. The total cost for this project is \$639,161. Again, there are two payment schedules shown with the 15-year loan offering the option for a positive cash flow when the O&M costs are excluded.

AMI – This option contains the AMI meters in the AMR Plus option, replaces all of the meter box lids and installs the infrastructure for reading the meters from City Hall. There will be about 30 meters that need to be read by driving by with the remainder of meters being read remotely. The cost for this option is \$832,124. Neither the 10 or 15-year financing option allow for a positive cash flow when the O&M cost savings are removed. However, this option will allow for more immediate reporting of customer leaks and the least amount of field work needed by the public works department.

Conclusion:

While the AMI option is the best technology and will save the most amount of staff time, it is the most expensive and does not offer a reasonable return on investment.

The difference between each of the AMR options is whether or not the city wants to move to an AMI platform in the future. With the AMR Plus option, there is also the ability to update the meter firmware if needed. Both options offer a positive cash-flow implementation with a 15-year loan.

Council will need to determine which direction for staff to move forward and a contract would then be presented at the next council meeting for approval.