Exhibit No.:	
Issues:	Hydrant Painting, AMI Program
Witness:	William Andrew Clarkson
Exhibit Type:	Surrebuttal
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2017-0285
	SR-2017-0286
Date:	February 9, 2018

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2017-0285
CASE NO. SR-2017-0286

SURREBUTTAL TESTIMONY

OF

WILLIAM ANDREW CLARKSON

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

Exhibit No. 14
Date 3/8/18 Reporter MM
File No. WR-2017-0285

Exhibit 14
WR-2017-0285
Surrebuttal Testimony of William
Andrew Clarkson

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	CASE NO. WR-2017-0285 CASE NO. SR-2017-0286

AFFIDAVIT OF W. ANDREW CLARKSON

W. Andrew Clarkson, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of W. Andrew Clarkson"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

W. Andrew Clarkson

State of Missouri
County of St. Louis
SUBSCRIBED and sworn to
Before me this 7th **day of** February **2018.**

Mary Beth Hercules
Notary Public

My commission expires:

MARY BETH HERCULES
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires April 26, 2020
Commission # 06546828

SURREBUTTAL TESTIMONY
WILLIAM ANDREW CLARKSON
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2017-0285
CASE NO. SR-2017-0286

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SURREBUTTAL TESTIMONY

WILLIAM ANDREW CLARKSON

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is William Andrew Clarkson, and my business address is 727 Craig Road, St. Louis, MO, 63141.

Q. Are you the same William Andrew Clarkson who previously submitted direct, revenue requirement rebuttal and rate design rebuttal testimony in this proceeding on behalf of Missouri-American Water Company ("MAWC" or "Company")?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond: (1) to Staff witness Jennifer Grisham's rebuttal testimony regarding hydrant painting; and, (2) to OPC witness John Robinett's rebuttal testimony regarding the Company's advanced metering infrastructure ("AMI") program.

II. HYDRANT PAINTING

Q. What is Staff's recommendation regarding hydrant painting?

A. Staff witness Grisham does not articulate a position regarding hydrant painting in her rebuttal testimony, but her workpapers indicate that she opposes the Company's proposed level of hydrant painting expense. In her rebuttal, she simply points out that

the contract for hydrant painting does not specify a specific number of hydrants to be painted during the term of the agreement.

Q. How do you respond to Staff witness Grisham?

A. As I explain in my direct and rebuttal testimony, the Company is seeking a level of hydrant painting expense that supports a more cost effective level of service for our customers over the long term. Staff witness Grisham correctly notes that the hydrant painting contract does not specify a number of hydrants to be painted during the contract term. The Company has signed a similar agreement for hydrant painting with the same vendor for 2018. The contract is based on a cost per hydrant painted by the vendor.

Q. What is the significance of that contract?

A. We believe that we have established a compelling case to paint more hydrants for the reasons expressed in my direct and rebuttal testimony. If the Commission agrees that the level of hydrant painting proposed by the Company in this case is appropriate, the contract gives the Company the flexibility to complete the level of hydrant painting approved by the Commission. Should the Commission determine that it does not want to approve the level of hydrant painting requested by the Company, the contract gives the Company the flexibility to scale back its planned hydrant painting activity. A non-binding contract does not serve as a basis for disallowing the Company's proposed hydrant painting expense. Rather, it gives the Company the flexibility to complete the level of hydrant painting the Commission deems appropriate in this case.

III. AMI PROGRAM

Q. At page 11 of his rebuttal testimony, OPC witness John Robinett states the "[r]atepayers will only receive benefit [of AMI] once reduction in costs are accounted for in a future rate case procedure." Do you agree?

A. No, I do not. As I explain in my direct testimony and further address in response to OPC 8506 (attached hereto as Schedule WAC-S1) there are several benefits associated with the implementation of AMI. They range from improved billing accuracy to improved employee safety and the redeployment of employees to further improve other areas of operations and overall quality of service delivered to customers.

Q. Has AMI already provided benefits to MAWC's customers?

A. Yes. One clear example of how AMI is already benefitting our customers is the Company's ability to monitor a customer's usage to identify potential leaks on the customer's side of the meter. The Company produces a weekly report showing all customers with continuous usage in hourly increments. Customers whose AMI meters show 72 consecutive hours of usage are notified via letter of a potential leak. As a result of these letters, customers have found the source of water use on their side of the meter and have been able to correct it. In some instances, it was something as simple as a leaking toilet, but in other cases there were underground leaks in their irrigation system that they would not have been easily discovered in the short term.

Q. How substantial can such leaks be for a customner?

A. As an example, one customer went from using almost 3,000 gallons of water a day to less than 100 gallons a day after being notified by the Company as I describe above. This customer actually had 2 leaks that were found using the AMI data. After

being informed of a potential leak the first time, the customer identified and corrected a leak on November 30, 2017, but the AMI system was still reading hourly usage after the customer fixed that first leak. After informing customer of a potential second leak, they checked the home again and found a second leak that they addressed on December 7, 2017.

Q. At page 12 of Mr. Robinett's rebuttal testimony, he notes that "OPC struggles with how AMI technology would identify leaks on MAWC's side of the meters of the Company owned mains and service lines." Please explain how MAWC can use AMI in this way.

A. The AMI network is already being used to collect data from acoustic monitoring equipment in the system, which eliminates the need to manually collect the data. This provides a more efficient way to collect and anlyze data in an area to help indentify potential leaks. In addition, once AMI is deployed throughout the system, the Company will be able to compare actual metered usage for smaller areas of the distribution system to the amount of water delivered for that area. Areas with higher non-revenue water will receive more intense leak detection investigation. AMI will essentially allow the Company to regularly monitor the distribution system and narrow down the search area for potential leaks when excessive water loss is identified in a particular area.

Q. Also at page 12 of his rebuttal testimony, Mr. Robinett states that "OPC is concerned that customers are going to be asked to pay for their existing meter being prematurely retired in favor of MAWC's desire to move to AMI technology

and then paying for new AMI that replaced their AMR meter." Is Mr. Robinett's concern valid?

A. No. MAWC's AMI program does not involve the replacement of all meters currently in service. As I explained on page 21 of my direct testimony, MAWC's AMI implementation involves the installation of AMI radio units on meters currently in service as well as on new meters replacing those that are due for replacement due to their length of service ("LOS"). For example, of the approximately 126,000 meters that had AMI installed as of January 31, 2018, only 26,000 were associated with a meter change. The other 100,000 had AMI technology installed on meters remaining in service. The Company is not engaging in premature meter changes to implement its AMI program.

Q Does this conclude your surrebuttal testimony?

A. Yes, it does.

Schedule WAC-S1

OPC 8506

DATA INFORMATION REQUEST
Missouri-American Water Company
WR-2017-0285

Requested From: Tim Luft
Date Requested: 7/21/17

Information Requested:

Please provided a detailed description and analysis to support the Company's discussion to deploy AMI over AMR technology?

Requested By: John Robinett - Office of Public Counsel – john.robinett@ded.mo.gov

Information Provided:

One of the benefits of AMI is that customer service representatives will have this improved metering and billing information available when customers call the Customer Service Center to discuss billing questions and issues. The AMI system-generated information will permit the customer service representatives ("CSR") to handle these customer inquiries more thoroughly and efficiently. The CSR can better explain historical use and billing parameters and will be able to discuss possible customer usage behaviors that may help reduce use. While MAWC anticipates call volumes may increase during the rollout, as customers become familiar with new billing and presentment, then call volumes will likely trend back to normal or lower over time.

Another benefit is because these customer calls sometimes result in MAWC performing a field visit to collect a meter read to confirm that the meter is performing accurately, MAWC will not only be able to reduce some of these field visits (thus saving field trip costs), but will also be able to more rapidly satisfy the customers billing and /or metering inquiry. Through these capabilities, it is more likely that the customer's questions will be satisfied sooner as part of the initial inquiry as opposed to being informed that MAWC may have to perform a field visit to confirm a meter reading, a process that may take several hours or days.

AMI can improve safety for its employees. With AMR, meter readers still must drive by meters to read them. Additionally, sometimes meters are located in areas of heavy traffic. AMI will reduce the number of times a worker must enter the traffic corridor to read a meter.

AMI will permit more frequent meter reading increments while reducing its meter reading expenses over time. Because our AMI deployment is over five years (2016-2020), we expect to transition existing meter-related roles in a gradual fashion. While MAWC recognizes that its meter reading and field expenses may decline somewhat with AMI over time, it also is aware that the changes to meter reading responsibilities will mainly assist MAWC to improve it is overall work force productivity, and shift current roles over time. These roles will change gradually over time with these individuals assuming other responsibilities. For this reason, the AMI benefits improve our worker productivity but will not reduce labor costs directly. We do not expect AMI to reduce our total headcount. Workers may become freed-up to perform other tasks and a certain number of meter readers will be utilized to trouble shoot meter reading issues.

To the extent that customers are able to reduce their water consumption, customers may save on their monthly bills. Some customers may also avoid costs due to undetected leakages, which through AMI are identified earlier.

Although there is a monetary value to all of these customer benefits, we are not able to specifically quantify the total monetary value of AMI implementation.

Responsible witnesses: Andrew Clarkson and Nikole Bowen