

Exhibit No.:	
Issues:	Consolidated Tariff Pricing
Witness:	Jeffrey T. Kaiser
Exhibit Type:	Rebuttal
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2020-0344
Date:	January 22, 2021

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2020-0344

**RATE DESIGN
REBUTTAL TESTIMONY**

OF

JEFFREY T. KAISER

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

AFFIDAVIT

I, Jeffrey T. Kaiser, under penalty of perjury, and pursuant to Section 509.030, RSMo, state that I am Director of Engineering and Acting Vice President of Operations for Missouri-American Water Company, that the accompanying testimony has been prepared by me or under my direction and supervision; that if inquiries were made as to the facts in said testimony, I would respond as therein set forth; and that the aforesaid testimony is true and correct to the best of my knowledge and belief.



Jeffrey T. Kaiser

January 22, 2021

**REBUTTAL TESTIMONY
JEFFREY T. KAISER
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2020-0344**

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REBUTTAL TESTIMONY

JEFFREY T. KAISER

I. INTRODUCTION

1 **Q. Please state your name and business address.**

2 A. Jeffrey T. Kaiser. My business address is 727 Craig Road, Creve Coeur MO 63141.

3 **Q. Are you the same Jeffrey T. Kaiser that previously submitted direct testimony is**
4 **this proceeding?**

5 A. Yes.

6 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

7 A. The purpose of my rebuttal testimony is to respond to the direct testimony of the Office
8 of the Public Counsel (“OPC”) witness Geoff Marke as to The Company’s future
9 capital investment.

II. FUTURE CAPITAL INVESTMENT

10
11 **Q. On page 10, line 5 of his direct testimony, OPC witness Geoff Marke discusses the**
12 **Averch-Johnson and Wellisz effect “... or what is colloquially known as ‘gold**
13 **plating,’” of capital investments. Has Dr. Marke provided any evidence in his**
14 **testimony or any argument that suggests MAWC has “gold plated” investments**
15 **or in any other way overspent on an investment for which it has requested rate**
16 **recovery in this or any other proceeding?**

17 A. No, he has not.

18 **Q. Does MAWC “gold plate” its projects?**

19 A. No, MAWC does not gold plate any of its projects.

1 **Q. What steps does the Company take to ensure this is not done?**

2 A. Project scopes are developed to be cost effective and to ensure compliance with
3 applicable regulations. For projects such as water mains, pipe materials and sizes are
4 selected to meet the demands anticipated for those projects and to ensure appropriate
5 service over the life of the asset. Distribution system hydraulic models are utilized to
6 determine appropriate average and peak flow rates required for those projects. For
7 plant, pump station, and other projects, the Company utilizes our comprehensive
8 planning process as described in my direct testimony on page 7 and engineering studies
9 to determine the appropriate approach to improvements.

10 **Q. Dr. Marke also states on page 10, line 11 of his direct testimony that “... MAWC**
11 **then has an incentive to invest in capital improvements rather than O&M**
12 **expenses, even if a capital improvement represents a sub-optimal solution as**
13 **compared to non-capital production factors.” Did Dr. Marke present any**
14 **evidence or any argument that MAWC has invested in a “sub-optimal” solution**
15 **for which it is requesting recovery in this or any other proceeding?**

16 A. No, he has not.

17 **Q. Does MAWC ever make a decision to invest in capital expenses, rather than**
18 **continuing operation and maintenance (“O&M”) expenses?**

19 A. Yes, it does.

20 **Q. Would you describe such decisions as “sub-optimal solutions”?**

21 A. No. Many of MAWC’s capital investments have an impact on O&M expenses and that
22 impact is considered in the decision regarding the timing and extent of those capital

1 investments. For example, a water main with repeated breaks will continue to incur
2 O&M expenses for repair. Replacing this water main will reduce future O&M expenses
3 related to this asset while also providing improved customer service. Another example
4 of O&M driven capital improvement would be a pump replacement. Over time, pumps
5 lose efficiency, and the distribution system hydraulic conditions often change. This
6 results in inefficient pump operation and increased O&M expense for electricity. This
7 same pump may also need bearing replacement, another O&M expense. Prior to
8 replacing the bearings and incurring that additional O&M expense which must be borne
9 by customers, MAWC may evaluate the pump and determine if the investment in a new
10 and more efficient pump would be a better long-term solution to the myriad of issues..
11 Like an old car, the owner is always faced with the decision of ongoing and increasing
12 maintenance costs versus replacement with something more reliable and less costly to
13 operate. That evaluation is a critical part of making prudent capital investments.

14 **Q. Are there any other factors that influence the decision to invest in new capital**
15 **rather than spend O&M dollars?**

16 A. Yes. Regulatory compliance, customer service, environmental impacts such as power
17 usage (carbon footprint), safety, and reliability are some of those factors.

18

19 **Q. Is there any guidance that MAWC uses to determine if capital investment in new**
20 **infrastructure is a better solution than continued O&M expense?**

21 A. Yes. Generally, and without going into extensive detail, for every dollar of annual
22 O&M expense that can be eliminated, MAWC can spend roughly \$8 dollars on capital
23 investment with no rate impact to our customers. This of course would not include

1 consideration of other factors that may influence this decision, but it is a general rule
2 of thumb that is used at MAWC.

3 **Q. On page 11, line 19, of his direct testimony, Dr. Marke cites from a ten year old**
4 **Staff Brief that states, in part, “Staff and other parties will have the difficult task**
5 **of proving that although some investment was necessary, the specific undertaken**
6 **was excessive, imprudent, or not cost effective.” Did Dr. Marke even attempt to**
7 **provide an example in his testimony of a MAWC capital investment that is**
8 **“excessive, imprudent or not cost effective”?**

9 A. No. He did not.

10 **Q. On page 12, line 2, in regard to MDNR approval of proposed capital projects to**
11 **meet environmental regulations, Dr. Marke cited from the same ten year old Staff**
12 **brief language that “In Staff’s opinion, these approvals are largely based upon**
13 **the technical feasibility of the proposed solution and do not focus upon the bottom**
14 **line impact of these decisions on ratepayers.” Is affordability considered in the**
15 **decision to make capital investments that are necessary to comply with**
16 **environmental regulations?**

17 A. Yes. As regulations are developed by the United States Environmental Protection
18 Agency (USEPA) and adopted by the State of Missouri, and implemented by MDNR,
19 cost impacts are considered and balanced against the public health concerns these
20 regulations are intended to address. In 2010, EPA published Guidelines for Preparing
21 Economic Analyses. These guidelines have been updated periodically since their
22 original publication. Per the Agency’s website ([https://www.epa.gov/environmental-](https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses#download)
23 [economics/guidelines-preparing-economic-analyses#download](https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses#download)):

1 “The *Guidelines* serve several important functions: (1) they assist policy
2 makers in developing regulations that achieve the highest environmental
3 quality and human health standards at the lowest costs; (2) provide
4 analysts with information needed to prepare high quality economic
5 analyses; (3) develop an overarching framework for economic analyses
6 throughout the Agency and across EPA Program Offices; and (4) ensure
7 that important subjects such as uncertainty, timing, and valuation of
8 costs and benefits, are treated consistently in all economic analyses at
9 EPA. EPA will use the *Guidelines* to evaluate the economic
10 consequences of its regulations and policies to insure that they
11 contribute to a safe environment and a healthy economy.”

12 **Q. Is the bottom-line impact on customers considered from the very development of**
13 **regulatory requirements and through MAWC’s investment necessary to meet**
14 **those regulations?**

15 A. Yes.

16 **Q. Do you have any examples as to how the Company considers regulatory**
17 **requirements in conjunction with costs in its decision making?**

18 A. Yes. MAWC often makes decisions regarding different technologies employed to
19 address a specific regulatory requirement. These different technologies often come with
20 very different costs and operational issues. For example, MAWC is required to provide
21 chlorine-based disinfection to our water systems. This chlorine can be in the form of
22 pressurized gas, a bulk liquid delivery of sodium hypochlorite, or sodium hypochlorite
23 generated on-site through an electrically powered process to produce a dilute solution.

1 Each process has specific capital costs, operational costs, and inherent safety risks.
2 MAWC employs all three technologies across our facilities based on the specific
3 attributes of that installation. By far, chlorine gas is the least expensive in terms of
4 overall cost, but it comes with significant safety risks to both our employees and the
5 general public and is therefore being phased out not just by MAWC but by the water
6 industry as a whole. On-site generation can be cost effective in some installations, but
7 it creates flammable hydrogen gas as a by-product. Both on-site generated sodium
8 hypochlorite and bulk delivered sodium hypochlorite can contain potentially hazardous
9 substances such as bromate which can impact regulatory compliance in other areas.
10 Bulk liquid sodium hypochlorite systems are the least costly to install and most safe to
11 operate but have the highest raw material costs of any of the options. Sodium
12 hypochlorite also degrades over time losing effectiveness for disinfection so the amount
13 of storage and rate of usage must be carefully evaluated. The point is that there are
14 often options which require more than a first look at the “bottom line” to determine the
15 most appropriate solution to regulatory compliance.

16 **Q. Do the Staff and the OPC have the authority and ability to question and**
17 **investigate the prudence of capital investments presented by MAWC in this**
18 **proceeding?**

19 A. Yes, they do.

20 **Q. Even though MAWC has single tariff pricing outside of St Louis County, has Staff**
21 **or OPC presented any evidence or argument to support Dr. Marke’s proposed**
22 **theory that because of single tariff pricing MAWC has made or is incentivized to**

1 **make imprudent investment for which the Company is now or has previously**
2 **requested reimbursement?**

3 A. No. They did not. Given that single tariff pricing is already in effect for most of
4 MAWC's service territories, Dr. Marke simply proposed a hypothetical and theoretical
5 problem where one has historically not existed and for which there is no reason to
6 believe would exist in the future.

7 **Q. Does this conclude your rate design rebuttal testimony?**

8 A. Yes, it does.