

Exhibit No.:
Issues: Support Services
Witness: Patrick L. Baryenbruch
Exhibit Type: Direct
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2020-0344
Case No.: SR-2020-0345
Date: June 30, 2020

MISSOURI PUBLIC SERVICE COMMISSION

**CASE NO. WR-2020-0344
CASE NO. SR-2020-0345**

DIRECT TESTIMONY

OF

PATRICK L. BARYENBRUCH

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

AFFIDAVIT

I, Patrick Baryenbruch, under penalty of perjury, and pursuant to Section 509.030, RSMo, state that I am President for Baryenbruch & Company, LLC, 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.



Patrick Baryenbruch

June 19, 2020

Dated

**DIRECT TESTIMONY
PATRICK L. BARYENBRUCH
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2020-0344
CASE NO. SR-2020-0345**

TABLE OF CONTENTS

I. INTRODUCTION 1

II. OVERVIEW 3

III. IMPACT OF PROJECTED CHANGE IN SERVICE COMPANY CHARGES 8

DIRECT TESTIMONY

PATRICK L. BARYENBRUCH

I. INTRODUCTION

1

2 **Q. Please state your name, position of employment and business address.**

3 A. My name is Patrick L. Baryenbruch. I am the President of my own consulting practice,
4 Baryenbruch & Company, LLC, which was established in 1985. In that capacity, I
5 provide consulting services to utilities and their regulators. My business address is
6 2832 Claremont Road, Raleigh, North Carolina 27608.

7 **Q. Summarize your academic and professional background.**

8 A. I received a Bachelor's degree in Accounting from the University of Wisconsin-
9 Oshkosh and a Master's in Business Administration degree from the University of
10 Michigan. I am a member of the American Institute of Certified Public Accountants
11 and the North Carolina Association of Certified Public Accountants.

12 I began my career with Arthur Andersen & Company, where I performed financial
13 audits of utilities, banks and finance companies. I left to pursue an M.B.A. degree.
14 Upon graduation from business school, I worked with the management consulting firms
15 of Theodore Barry & Associates and Scott Consulting Group (now ScottMadden)
16 before establishing my own firm.

17 **Q. Do you hold any professional certifications?**

18 A. Yes. I am a Certified Public Accountant (CPA) with an active license from the state of
19 Wisconsin (license number 5343-1). I am a Certified Information Technology

1 Professional (CITP), an accreditation awarded by the American Institute of Certified
2 Public Accountants to CPA professionals who can demonstrate expertise in
3 information technology management. I also hold a Global Information Assurance
4 Certification (GIAC) in cybersecurity from the SANS Institute.

5 **Q. Have you provided testimony in other regulatory proceedings on the issue of**
6 **utility/affiliate transactions?**

7 A. Yes. In the course of my career, I have performed more than 100 evaluations of affiliate
8 charges to 39 utility companies. I have acted as an expert witness on utility/affiliate
9 charges in over 70 rate case proceedings before regulators in 17 states. Schedule PLB-
10 1 presents my previous affiliate transaction-related assignments.

11 **Q. What other work experience do you have with the utility industry?**

12 A. Besides my rate case support work, much of my career has been spent as a management
13 consultant for projects related to the utility industry. I have performed consulting
14 assignments for more than 60 utilities and 10 public service commissions. I have
15 participated as project manager, lead consultant or staff consultant for 24 commission-
16 ordered management and prudence audits of public utilities. Of these, I have been
17 responsible for evaluating the area of affiliate charges and allocation of corporate
18 expenses in the Commission-ordered audits of Connecticut Light and Power,
19 Connecticut Natural Gas, General Water Corporation (now United Water Company),
20 Philadelphia Suburban Water Company (now Aqua America) and Pacific Gas &
21 Electric Company.

1 My firm performed the commission-ordered audit of Southern California Edison's
2 2002, 2003, 2004 and 2005 transactions with its non-regulated affiliate companies.

3 For the past 20 years, I have also been heavily involved in providing consulting services
4 related to information technology (IT) infrastructure within the utility industry. These
5 projects involve improvements in IT business management practices of utility IT
6 organizations, covering processes such as business planning, risk management,
7 performance measurement and reporting, cost recovery, budgeting, cost management
8 and personnel development.

9 I acted as the project manager or member of the project management team for several
10 very large-scale IT implementation projects involving the work of hundreds of utility
11 client employees and contractor personnel.

12 **II. OVERVIEW**

13 **Q. Please describe the reason for your testimony in this case.**

14 A. I am presenting the results of my study that evaluated the services provided by
15 American Water Works Service Company, Inc. (Service Company) during the 12
16 months ended December 31, 2019, to Missouri American Water Company (MAWC).
17 This study was undertaken in conjunction with MAWC's rate case and is true to the
18 best of my knowledge and belief. The study is attached as Schedule PLB-2.

19 **Q. What services does the Service Company provide to MAWC?**

20 A. Please refer to Section II (Background) of Schedule PLB-2 for an overview of the
21 Service Company.

1 **Q. What were the objectives of your study?**

2 A. This study was undertaken to answer four questions concerning the services provided
3 by the Service Company to MAWC, each of which bears on the reasonableness of those
4 charges as incurred during 2019.

5 1) Were the Service Company's charges to MAWC during 2019 reasonable?

6 2) Was MAWC charged the lower of cost or market value for managerial and
7 professional services provided by the Service Company during 2019?

8 3) Were 2019 costs of the Service Company's customer account services,
9 including those of the National Call Centers, comparable to those of other
10 utilities?

11 4) Are the services MAWC receives from the Service Company necessary?

12 **Q. Did you perform cost comparisons as part of your evaluation of Service Company**
13 **charges to MAWC during the 2019?**

14 A. Yes. The following cost comparisons were developed in connection to enable me to
15 answer questions associated with the reasonableness of 2019 Service Company charges
16 to MAWC

17 • Question 1 – Reasonableness of Service Company Charges – 2019 Service
18 Company A&G-related charges per MAWC customer compared to the same
19 charges per customer of other utility service companies.

20 • Question 2 – Provision of Services at Lower of Cost or Market – Service
21 Company 2019 hourly costs of services compared to those of outside service
22 providers.

- 1 • Question 3 - Reasonableness of Customer Account Services Costs – 2019
2 MAWC customer accounts services expenses, including charges from the
3 Service Company for call center and other services, per MAWC customer
4 compared to those of Missouri and neighboring utilities.

5 **Q. What conclusions were you able to draw concerning Question 1, whether the**
6 **Service Company charges to MAWC were reasonable?**

7 A. The Service Company's 2019 cost per MAWC customer is reasonable compared to
8 cost per customer for electric and combination electric/gas service companies. During
9 2019 MAWC was charged \$63 per customer for administrative and general (A&G)-
10 related services provided by the Service Company. This compares to an average of
11 \$110 per customer for service companies reporting to the Federal Energy Regulatory
12 Commission (FERC). Eighteen of the 24 utility service companies that filed a FERC
13 Form 60 for 2018 had higher per-customer Administrative & General (A&G) costs than
14 MAWC's charges from the Service Company.

15 **Q. What conclusions were you able to draw concerning Question 2, whether MAWC**
16 **was charged the lower of cost or market services provided by the Service**
17 **Company?**

18 A. I was able to draw the following conclusions:

- 19 1) MAWC was charged the lower of cost or market for managerial and
20 professional services during 2019.
21 2) On average, the hourly rates for outside service providers are 58% higher than
22 the Service Company's hourly rates.

- 1 3) The managerial and professional services provided by the Service Company are
2 vital and could not be procured externally by MAWC without careful
3 supervision on the part of MAWC. If these services were contracted entirely to
4 outside providers, MAWC would have to add at least three positions to manage
5 activities of outside firms. These positions would be necessary to ensure the
6 quality and timeliness of services provided.
- 7 4) If all the managerial and professional services now provided by the Service
8 Company had been outsourced during 2019, MAWC and its ratepayers would
9 have incurred approximately \$12.8 million in additional expenses. This amount
10 includes the higher cost of outside providers and the cost of three MAWC
11 positions needed to direct the outsourced work.
- 12 5) This study's hourly rate comparison actually understates the cost advantages
13 that accrue to MAWC from its use of the Service Company. Outside service
14 providers generally bill for every hour worked. Service Company exempt
15 personnel, on the other hand, charge a maximum of 8 hours per day even when
16 they work more hours. If all overtime hours of Service Company personnel
17 were factored into the hourly rate calculation, the Service Company would have
18 had an even greater annual dollar advantage than the \$12.8 million cited above.
- 19 6) It would be difficult for MAWC to find local service providers with the same
20 specialized water and wastewater industry expertise as that possessed by the
21 Service Company staff. Service Company personnel spend substantially all
22 their time serving operating water and wastewater companies. This
23 specialization brings with it a unique knowledge of water and wastewater utility

1 operations and regulation that is most likely unavailable from local service
2 providers.

3 7) Service Company fees do not include any profit markup. Only its actual cost
4 of service is being recovered from MAWC ratepayers.

5 **Q. What conclusions were you able to draw concerning Question 3, whether 2019**
6 **costs of the Service Company’s customer accounts services, including those of the**
7 **National Call Centers, were reasonable?**

8 A. The cost of the Service Company’s customer accounts services, including those
9 provided by the National Call Centers, is well below the average of the neighboring
10 electric utility comparison group. As will be explained further in my report, this group
11 of companies provides a reasonable proxy group for comparison to a regulated utility
12 of the size and scope of the Service Company and MAWC. During 2019, the cost of
13 customer accounts services for MAWC customers was \$27.89 compared to the 2018
14 average of \$30.92 for neighboring electric utilities. The highest comparison group per
15 customer cost was \$41.57 and the lowest \$13.74.

16 **Q. What conclusions were you able to draw concerning Question 4, whether the**
17 **services MAWC receives from the Service Company are necessary?**

18 A. I was able to draw the following conclusions:

19 1) The services that the Service Company provides are necessary and would be
20 required even if MAWC were a stand-alone water and wastewater utility.

21 2) Furthermore, there is no redundancy or overlap in the services provided by the
22 Service Company to MAWC.

III. IMPACT OF PROJECTED CHANGE IN SERVICE COMPANY CHARGES

Q. What are the primary drivers of the projected a \$6.4 million increase in Service Company charges from 2019 to the future test year ending May 31, 2022?

A. The increase is driven primarily by three factors: (1) divestiture of American Water’s New York operations (\$1.4 million), (2) transfer of certain customer service-related expenditures from MAWC to the SC (\$3.7M) and (3) regular annual merit increases (\$1.2M).

Q. What impact do the additional Service Company charges have on your comparison of the Service Company A&G charges to those of other utility service companies (i.e., Question 1)?

A. If I assume all of the additional Service Company charges to MAWC are A&G related, then the 2019 cost per MAWC customer would increase from \$63 to \$77, as calculated in the table below. In the “proforma” column, the \$6.4 million in additional charges are added into the cost pool for purposes of calculating Service Company A&G charges per customer. The assumption that all of the additional charges are A&G is conservative because some amount likely are related to operational services.

	Actual 12 Months Ended Dec. 31, 2019	Proforma 12 Months Ended May 31, 2022
Total Service Company Charges	\$ 45,659,195	\$ 45,659,195
Less: Capital Charges	\$ (13,385,058)	\$ (13,385,058)
Less: Non-A&G Charges		
Engineering	\$ (587,838)	\$ (587,838)
Operations	\$ (910,332)	\$ (910,332)
Water Quality	\$ (130,718)	\$ (130,718)
Add: Increase Through Future Test Year		\$ 6,429,778
Net A&G Service Company Charges	\$ 30,645,250	\$ 37,075,028
MAWC Customer Count	484,517	484,517
MAWC A&G Charges per Customer	\$ 63	\$ 77

1 The proforma \$77 cost per customer is still well below the study’s comparison group.
 2 As shown in the table below, the Service Company’s proforma A&G expenses per
 3 MAWC customer remain lower than 17 of the 24 comparison group costs.

Service Company A&G Charges Per Customer
 MAWC (2019 Actual/Proforma 2022 Future Test Year)
 versus Comparison Group (2018)

Utility Company	Actual	Utility Company	Proforma
Unitil	\$271	Unitil	\$271
Nat Grid	\$191	Nat Grid	\$191
PNM	\$188	PNM	\$188
Exelon	\$182	Exelon	\$182
Black Hills	\$161	Black Hills	\$161
Duke	\$144	Duke	\$144
Entergy	\$139	Entergy	\$139
Alliant	\$138	Alliant	\$138
Eversource	\$133	Eversource	\$133
WEC	\$116	WEC	\$116
PPL	\$113	PPL	\$113
Group Average	\$110	Group Average	\$110
Xcel	\$103	Xcel	\$103
Algonquin	\$97	Algonquin	\$97
NiSource	\$94	NiSource	\$94
AEP	\$90	AEP	\$90
AES	\$80	AES	\$80
FirstEnergy	\$78	FirstEnergy	\$78
Southern Co	\$75	MAWC	\$77
MAWC	\$63	Southern Co	\$75
Ameren	\$62	Ameren	\$62
CenterPoint	\$62	CenterPoint	\$62
SCANA	\$60	SCANA	\$60
Avangrid	\$50	Avangrid	\$50
TECO	\$46	TECO	\$46
Dominion	\$45	Dominion	\$45

4

5 **Q. What impact do the additional Service Company charges have on your lower-of-**
 6 **cost-or-market comparison (i.e., Question 2)?**

7 A. My study determined that the cost of services provided by the Service Company to
 8 MAWC were 58% lower than what outside service providers would charge. If all the
 9 managerial and professional services now provided by the Service Company had been

1 outsourced during 2019, MAWC and its customers would have incurred nearly \$12.8
2 million in additional expenses.

3 Not all of the projected \$6.4 million increase will impact the Service Company's hourly
4 cost of services. The \$3.7 million associated with the transfer of Customer Service-
5 related expenditures to the Service Company will not because these involve outside
6 expenditures (e.g., postage, forms, collection agency fees) not related to the provision
7 of professional services to MAWC. Also, in the future, these same expenditures will
8 be made by the Service Company instead of MAWC. Thus, the impact on customers
9 will be a wash. Even if you assume the remaining increase of \$2.7 million (\$6.4 million
10 less \$3.7 million) in projected Service Company charges are included in the hourly rate
11 calculation, the cost of Service Company services is still significantly lower than
12 outside providers.

13 **Q. What impact do the additional Service Company charges have on your customer
14 accounts services cost comparison (i.e., Question 3)?**

15 A. My study determined that MAWC's 2019 customer accounts services cost \$27.87 per
16 customer. If you assume the additional charges of \$1.4 million include customer
17 accounts services expense in the same proportion as 2019 actual charges, then the
18 proforma additional customer accounts services expenses are \$203,591, as calculated
19 below.

	2019	
	Amount	Percent
Management and Professional Services	\$ 39,019,341	85%
Customer Account Services	\$ 6,639,853	15%
Total Service Company Charges	\$ 45,659,194	100%
Additional Service Company Charges Due to Divestiture of NY Operations	\$ 1,400,000	
Customer Account Services Percent		15%
Proforma Additional Amount	\$ 203,591	

1

2

3

4

These additional charges bring MAWC's proforma customer account services expenses per customer to a future test year cost of \$28.31, as calculated in the table below.

	2019 Actual	2022 Future Test Year Proforma
2019 Cost Pool	\$13,513,046	\$ 13,513,046
Add: Proforma Additional Amount		\$ 203,591
Total	\$13,513,046	\$ 13,716,637
Total Customers	484,517	484,517
Cost Per MAWC Customer	\$ 27.89	\$ 28.31

5

6

7

8

MAWC's future test year cost of \$28.31 per customer is still well below the 2018 comparison group average for Missouri and neighboring state utilities, as shown in the table below.

Customer Account Services Expenses Per Customer			
Actual		Proforma	
Kentucky Utilities	\$41.57	Kentucky Utilities	\$41.57
Commonwealth Edison	\$41.31	Commonwealth Edison	\$41.31
KCP&L	\$36.91	KCP&L	\$36.91
KCP&L Missouri	\$34.81	KCP&L Missouri	\$34.81
Entergy Arkansas	\$32.34	Entergy Arkansas	\$32.34
Duke Energy Kentucky	\$32.07	Duke Energy Kentucky	\$32.07
Empire District Electric	\$31.47	Empire District Electric	\$31.47
Comparison Group Average	\$30.92	Comparison Group Average	\$30.92
Kentucky Power	\$30.85	Kentucky Power	\$30.85
Kansas Gas & Electric	\$29.54	Kansas Gas & Electric	\$29.54
MAWC	\$27.89	MAWC	\$28.31
PS of Oklahoma	\$27.27	PS of Oklahoma	\$27.27
Kingsport Power	\$26.18	Kingsport Power	\$26.18
Oklahoma G&E	\$25.99	Oklahoma G&E	\$25.99
MidAmerica Energy	\$24.23	MidAmerica Energy	\$24.23
Westar Energy	\$24.13	Westar Energy	\$24.13
Ameren Illinois	\$22.80	Ameren Illinois	\$22.80
Louisville G&E	\$19.21	Louisville G&E	\$19.21
Ameren Missouri	\$17.88	Ameren Missouri	\$17.88
Interstate P&L	\$13.74	Interstate P&L	\$13.74

1

2 **Q. Are there any factors that mitigate the future impact on MAWC from the**
3 **divestiture of NYAW and the resultant allocation of Service Company charges?**

4 A. Yes. In recent years, American Water’s total customers have increased steadily
5 through acquisitions and internal growth. The table below shows total customers grew
6 by more than 181,000 from 2015 to 2019. This is larger than the loss of NYAW’s
7 nearly 126,000 customers. Any future customer growth means there is a larger base
8 over which Service Company expenses can be allocated.

Year	American Water Customers	
	Total	Increase
2015	3,252,691	
2016	3,312,304	59,613
2017	3,353,877	41,573
2018	3,381,695	27,818
2019	3,434,025	52,330
2015-2019 Increase		181,334

9

1 **Q. What conclusion can you draw from the impact on MAWC customers from the**
2 **projected increase in Service Company charges?**

3 A. Based upon the foregoing analysis, the services provided by the Service Company to
4 MAWC will continue to be a very good value for MAWC and its customers in spite of
5 the additional charges.

6 **Q. Does this complete your testimony?**

7 A. Yes.

Patrick Baryenbruch's Previous Affiliate Transactions and Rate Case Engagements

	Client	State	Year	Purpose	Rate Case Witness?
1	Connecticut American Water	Connecticut	1999	Rate Case	Yes
2	Illinois American Water	Illinois	2007	Rate Case	Yes
3	Indiana American Water	Indiana	2017	Rate Case	Yes
4	Kentucky American Water	Kentucky	2003	Rate Case	Yes
		Kentucky	2006	Rate Case	Yes
		Kentucky	2008	Rate Case	Yes
		Kentucky	2009	Rate Case	Yes
		Kentucky	2018	Rate Case	Yes
5	Massachusetts American Water	Massachusetts	2000	Rate Case	Yes
6	Missouri American Water	Missouri	2002	Rate Case	Yes
		Missouri	2008	Rate Case	Yes
		Missouri	2014	Rate Case	Yes
		Missouri	2016	Rate Case	Yes
7	New Jersey American Water	New Jersey	2005	Rate Case	Yes
		New Jersey	2007	Rate Case	Yes
		New Jersey	2009	Rate Case	Yes
		New Jersey	2010	Rate Case	Yes
		New Jersey	2014	Rate Case	Yes
		New Jersey	2017	Rate Case	Yes
		New Jersey	2019	Rate Case	Yes
8	New Mexico American Water	New Mexico	2007	Rate Case	Yes
9	New York American Water	New York	2006	Rate Case	Yes
		New York	2010	Rate Case	Yes
		New York	2013	Rate Case	Yes
		New York	2015	Rate Case	Yes
10	Ohio American Water	Ohio	2006	Rate Case	Yes
		Ohio	2010	Rate Case	Yes
11	Pennsylvania American Water	Pennsylvania	2008	Compliance	No
		Pennsylvania	2011	Compliance	No
		Pennsylvania	2014	Compliance	No
		Pennsylvania	2017	Compliance	No
12	Tennessee American Water	Tennessee	2006	Rate Case	Yes
		Tennessee	2010	Rate Case	Yes
13	Virginia American Water	Virginia	1996	Rate Case	Yes
		Virginia	1999	Rate Case	Yes
		Virginia	2000	Rate Case	Yes
		Virginia	2001	Rate Case	Yes
		Virginia	2003	Rate Case	Yes
		Virginia	2007	Rate Case	Yes
		Virginia	2009	Rate Case	Yes
		Virginia	2011	Rate Case	Yes
		Virginia	2014	Rate Case	Yes
		Virginia	2018	Rate Case	Yes
14	West Virginia American Water	West Virginia	2002	Rate Case	Yes
		West Virginia	2006	Rate Case	Yes
		West Virginia	2007	Rate Case	Yes
		West Virginia	2009	Rate Case	Yes
		West Virginia	2012	Rate Case	Yes
		West Virginia	2014	Rate Case	Yes
		West Virginia	2017	Rate Case	Yes
15	Atlanta Gas Light (AGL Resources)	Georgia	2009	Rate Case	Yes
16	Atmos Energy Corporation (VA)	Virginia	2004	Compliance	No
17	Columbia Gas of Kentucky	Kentucky	2015	Rate Case	Yes
18	Columbia Gas of Maryland	Maryland	2015	Rate Case	Yes
19	Columbia Gas of Massachusetts	Massachusetts	2004	Rate Case	Yes
		Massachusetts	2006	Internal Info	No
		Massachusetts	2011	Internal Info	No
		Massachusetts	2012	Internal Info	No
		Massachusetts	2014	Internal Info	No
		Massachusetts	2017	Internal Info	No

Patrick Baryenbruch's Previous Affiliate Transactions and Rate Case Engagements

	Client	State	Year	Purpose	Rate Case Witness?
20	Columbia Gas of Pennsylvania	Pennsylvania	2015	Rate Case	Yes
21	Columbia Gas of Virginia	Virginia	2003	Compliance	No
		Virginia	2004	Compliance	No
		Virginia	2005	Rate Case	Yes
		Virginia	2006	Compliance	No
		Virginia	2007	Compliance	No
		Virginia	2008	Compliance	No
		Virginia	2009	Rate Case	Yes
		Virginia	2010	Compliance	No
		Virginia	2011	Compliance	No
		Virginia	2012	Compliance	No
		Virginia	2013	Rate Case	Yes
		Virginia	2014	Compliance	No
		Virginia	2015	Rate Case	Yes
		Virginia	2016	Compliance	No
	Virginia	2017	Rate Case	Yes	
	Virginia	2018	Compliance	No	
22	Northern Indiana Public Service Company	Indiana	2015	Internal Info	No
		Indiana	2016	Rate Case	Yes
23	Dominion Resources, Inc. (VA)	Virginia	2008	Rate Case	Yes
		Virginia	2009	Compliance	No
		Virginia	2010	Compliance	No
		Virginia	2011	Compliance	No
		Virginia	2012	Compliance	No
		Virginia	2014	Compliance	No
	Virginia	2017	Compliance	No	
24	Duke Energy (NC)	North Carolina	2006	Compliance	No
25	Elizabethtown Gas (AGL Resources) (NJ)	New Jersey	2008	Rate Case	Yes
26	Electric Transmission Texas	Texas	2016	Rate Case	Yes
27	General Water Works of Rio Rancho (NM)	New Mexico	1993	Rate Case	Yes
28	General Water Works of Virginia	Virginia	1992	Rate Case	Yes
29	Po River Water and Sewer (VA)	Virginia	1993	Rate Case	Yes
		Virginia	2007	Rate Case	Yes
		Virginia	2008	Rate Case	Yes
30	Progress Energy (NC)	North Carolina	2001	Internal Info	No
31	Roanoke Gas Company (VA)	Virginia	2006	Compliance	No
32	Southern California Edison	California	2002	Compliance	No
		California	2003	Compliance	No
		California	2004	Compliance	No
		California	2005	Compliance	No
33	AEP Texas	Texas	2018	Rate Case	Yes
34	Southwestern Electric Power	Texas	2016	Rate Case	Yes
35	Virginia Natural Gas (AGL Resources)	Virginia	2004	Compliance	No
		Virginia	2005	Rate Case	Yes
		Virginia	2010	Rate Case	Yes
36	United Water of Pennsylvania	Pennsylvania	2004	Rate Case	Yes
37	Utilities, Inc./Corix Infrastructure Inc.		2018	Internal Info	No
38	Utilities, Inc. (VA)	Virginia	2006	Rate Case	Yes
		Virginia	2008	Rate Case	Yes
		Virginia	2013	Rate Case	Yes
		Virginia	2019	Rate Case	Yes
39	Utilities, Inc. (KY)	Kentucky	2010	Rate Case	Yes
		Kentucky	2012	Rate Case	Yes
Total Studies					114
Number of Rate Cases					77
Number of Utility Clients					39
Number of States					17

**Market to Cost Comparison of Service Company Charges to
Missouri American Water Company, Inc.**

12 Months Ended December 31, 2019

June 2020



**Missouri American Water Company, Inc.
Market to Cost Comparison of Service Company Charges
12 Months Ended December 31, 2019**

Table of Contents

	<u>Page</u>
I – Introduction	1
Purpose of This Study	
Study Results	
II – Background	3
Overview of American Water Service Company	
Service Company Accounting	
Service Company Billing and Clearing	
III – Service Company Cost Comparison Approach	7
Service Company Evaluation Year Charges	
Service Company Cost Comparison Approach	
IV – Question 1 – Reasonableness of Service Company Charges	9
Methodology	
MAWC’s Service Company A&G Cost per Customer	
Comparison Group Cost per Customer	
V – Question 2 – Provision of Services at Lower of Cost or Market	13
Methodology	
Service Company Hourly Rates	
Outside Service Provider Hourly Rates	
Service Company versus Outside Provider Cost Comparison	
VI – Question 3 – Reasonableness of Customer Accounts Services Costs	29
Background	
Comparison Group	
MAWC’s Cost per Customer	
Electric Utility Group Cost per Customer	
Summary of Results	
VII – Question 4 – Need for Service Company Services	34
Analysis of Services	
Governance Practices Associated with Service Company Charges	
VIII – Impact on MAWC From the Sale of New York Water Company	

I – Introduction

Purpose of This Study

This Market to Cost Comparison of Service Company Charges to Missouri American Water Company, Inc. study (Study) was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Missouri American Water Company, Inc. (MAWC):

1. Were the Service Company's charges to MAWC during the 2019 reasonable?
2. Was MAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during 2019?
3. Were Evaluation Year costs of Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services MAWC receives from the Service Company necessary?

Study Results

Concerning Question 1, the following conclusion was reached:

- The Service Company's Evaluation Year cost per MAWC customer is reasonable compared to costs per customer for electric and combination electric/gas service companies. During 2019, MAWC was charged \$63 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$110 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Eighteen of the 24 utility service companies that filed a FERC Form 60 for 2018 had higher per-customer A&G costs than MAWC's charges from the Service Company.

Concerning Question 2, the following conclusions were reached from this study:

- MAWC was charged the lower of cost or market for managerial and professional services during 2019.
- On average, the hourly rates for outside service providers are 58% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are essential and could not be procured externally by MAWC without careful supervision on the part of MAWC. If these services were contracted entirely to outside providers, MAWC would have to add at least three positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during 2019, MAWC and its customers would have incurred nearly \$12.8 million in additional expenses. This amount includes the higher cost of outside providers and the cost of four new MAWC positions needed to direct the outsourced work.
- This Study's hourly rate comparison actually understates the cost advantages that accrue to MAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of eight hours per day even when they work more hours. If all overtime hours of



I – Introduction

Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$12.8 million cited above.

- It would be difficult for MAWC to find local service providers with the same specialized water and wastewater industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water and wastewater companies. This specialization brings with it a unique knowledge of water and wastewater utility operations and regulation that is not readily available from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is recovered from MAWC customers.

Concerning Question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Centers, is below the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and MAWC. During 2019, the cost of customer accounts services for MAWC customers was \$27.89, compared to the 2018 average of \$30.92 for neighboring electric utilities. The highest comparison group per-customer cost was \$41.57 and the lowest \$13.74.

Concerning Question 4, the following conclusions were drawn:

- The services that the Service Company provides are necessary and would be required even if MAWC were a stand-alone water and wastewater utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to MAWC. For all of the services provided (Table 13), there was only one entity primarily responsible for the service.

II – Background

Overview of American Water Works Service Company

Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for customers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale, thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, Service Company is able to maintain one principal data center for the entire organization. This is much more cost-efficient than each operating utility funding its own data center with large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to manage staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it were necessary to hire outside to fill the vacancy.
- **Maintenance of Enterprise-Wide Standards** – Personnel in Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to align operating utility operations because their implementation is supported by the Service Company.
- **Improved Support and Guidance** – Service Company provides another dimension of management and financial support and guidance that supplements local operating utility management. The Service Company facilitates standard planning and reporting, which helps ensure that operating utilities meet the requirements of their customers in a cost-effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard: its services are provided to affiliate operating utilities, like MAWC, at cost. Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

II – Background

Service Company provides services to American Water operating companies from the following locations:

- One Water Street – In 2018, Service Company employees located in three locations in southern New Jersey were relocated to a new office building – One Water Street -- located in Camden, New Jersey. Service Company employees at One Water Street provide corporate governance and service functions, including executive management, finance, accounting, audit, tax, regulatory, external affairs, engineering, supply chain, human resources and benefits services. One Water Street also includes American Water's main Technology & Innovation (T&I) Services center for employees, provides software delivery and enhancements for SAP and non-SAP (legacy) systems and provides local on-site support as well as the T&I Service Desk for remote assistance for all employees using personal computers in the performance of their day-to-day activities. Further, One Water Street supports mission-critical systems such as SCADA as well as emerging technologies such as geographic information systems and mobility. It provides technical expertise in project governance, release management while ensuring compliance with all governmental regulations.
- Central Lab – The national trace substance laboratory is located in Belleville, Illinois, and performs testing for all American Water operating companies.
- Customer Service Centers – Provides customer call center and billing services from two locations: Alton, Illinois, and Pensacola, Florida.
- Customer Relations Centers – Provides customer relations and field resource coordination services from two locations: Belleville, Illinois, and Wilkes Barre, Pennsylvania.
- Technology & Innovation Services Center –The T&I Services Center supports the technology infrastructure required to run corporate and operating company business applications and communications systems for American Water's operating companies. American Water's primary data center is an IBM facility in Sterling Forrest, New York.
- Haddon Heights Technology & Innovation Services Center – American Water's data center, located in Haddon Heights, New Jersey, maintains data servers for back-up and disaster recovery.
- Divisional Support Services – Operating companies are provided with certain support services that are delivered more effectively on a regional basis because individual operating company workloads are not sufficient to warrant maintaining their own full-time staff for these activities. These services require closer proximity to operating companies and therefore are located closer to the operating companies the employees provide service to instead of one of the corporate locations.

Service Company Accounting

Service Company maintains an accounting ledger for recording transactions (e.g., labor, expenses, overhead, capital and other assets, liabilities and equity) in a Service Company ledger separate from Affiliates' ledgers. Monthly financial statements are prepared that summarize month-to-date and year-to-date costs, budgets and prior year, with variances and explanations, by category and function. Accounting categories by transaction type are described below:



II – Background

- **Service Company Labor:** The Service Company utilizes a system that tracks time and attendance. Employees electronically enter hours worked (including vacation, sick, family leave, etc.) and accounting information (e.g., business unit; formula; pay type) and electronically submit the timesheet for approval. Submitted timesheets are electronically routed to authorized approvers. Time sheets require approval (of hours and accounting information such as formulas, etc.) by an authorized timesheet approver in the employee's home business unit.
- **Service Company Expenses:** Expenditures (i.e., standard invoices, purchase orders, electronic disbursements, Miscellaneous Invoices, Recurring Invoices, Recurring Vouchers, and procurement cards) and journal entries require a preparer to enter accounting coding details (e.g., cost center, cost element and Work Breakdown Structure (WBS)) and a reviewer to approve the information in accordance with the corporate Delegation of Authority Policy. Expenditures are processed electronically and are automatically routed to the employee's supervisor for approval. Costs are posted many times daily, in detail, in the business unit selected. Journal entries are submitted as prepared to the appropriate reviewer and posted as approved.
- **Service Company Assets:** Service Company assets are procured directly by Service Company or through a capital leasing arrangement with Laurel Oak Properties (LOP). Service Company capitalizes these LOP leases as Non-Utility Plant assets in accordance with generally accepted accounting principles. Generally speaking, Service Company assets (including hardware, servers, laptops, desktops, servers, storage racks, furniture, laboratory and test equipment, security cameras, monitors and leasehold improvements) are acquired through LOP via a capital lease. LOP, on behalf of the Service Company, will acquire the necessary materials and services to build the assets that are needed for the Company to meet its business needs. One Water Street (OWS), which owns the Camden headquarters, is providing furniture, fixtures and office-related equipment for the first 7 years of the lease with the Service Company.
- **Service Company Overhead:** Costs for support personnel (e.g., administrative assistants, mailroom clerks), rents, facility expenses, pension, medical insurance, taxes, general office supplies and other similar expenses are recorded in the ledger of the cost center responsible for incurring the charge. Overhead expenditures are posted using the labor and expense processes noted above, and are recorded, in detail, in the ledger of the cost center responsible for the charge, using an overhead WBS.

Service Company Billing and Clearing

Service Company has developed a billing system that charges directly or allocates costs for services provided to Affiliates. Service Company billing is processed monthly and includes all Service Company costs charged to Affiliates using the WBS element selected for each transaction.

- **WBS element:** Every Service Company transaction (vouchers, journal entries, payroll batch, etc.) requires a WBS element within the account coding string. Each WBS element is configured in SAP with the following: Affiliate(s) to be charged, percent of charge to be billed to each Affiliate (total must equal 100%), receiving object (e.g., Affiliate's cost center) for O&M costs or an Affiliate's WBS element for Capex Costs. WBS elements are configured in SAP with an end date (month/year) to prevent transactions from using an expired WBS during data input.
- **Affiliate Billing Process:** Service Company billing is a two-step process that first calculates allocations of transactions for all non-overhead WBS elements. The second step calculates overhead transaction allocations using the ratio of direct labor (Cost Element

II – Background

- 5012000) allocations to Affiliates from the first step above multiplied by the pool of overhead expenses by physical location.
- Bill Clearing Process: Service Company billings are cleared through American Water Capital Corporation, Inc. (an affiliate), monthly via an intercompany journal entry to GL Account 23120000 (Notes Payable – Associated Companies) posted on the last day of the month. Payments are estimated for each Affiliate using the prior month actual billing (current month estimate) with adjustment for prior month actual to estimate (previous month funding) true-up.

III – Service Company Cost Comparison Approach

Service Company Evaluation Year Charges

During 2019, the Service Company billed MAWC a total of approximately \$45.7 million, as shown in the table below. These charges were subjected to a market to cost comparison.

	2019
Support Services - O&M	\$ 32,274,137
Support Services - Capital	\$ 13,385,058
Total Service Company Charges	\$ 45,659,195

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, engineering and technology innovation.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total Evaluation Year Service Company dollar and hour charges break down between management and professional services and customer account services as follows:

	2019	
	Amount	Hours
Management and Professional Services	\$ 39,019,341	151,885
Customer Account Services	\$ 6,639,853	114,774
Total Service Company Charges	\$ 45,659,195	266,658

Service Company Cost Comparison Approach

This Study's first question—whether the Service Company Evaluation Year charges were reasonable—was determined by comparing MAWC's A&G-related Service Company charges per regulated retail customer to the same charges for utility companies that must file the Federal Energy Regulatory Commission (FERC) Form 60 – Annual Report of Service Companies.

The second question—whether the Service Company charges during 2019 were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to MAWC during 2019. Outside providers' billing rates came from surveys or other information from professionals who could perform the services now provided by the Service Company.

The third question—whether Service Company's Evaluation Year customer account services charges, including National Call Center costs, were comparable to other utilities—was addressed by comparing MAWC's customer accounts services expenses to those of neighboring investor-owned electric utilities. This utility comparison group was selected because the cost of outside providers of customer accounts services is proprietary and not publicly available. Comparison to electric utilities is appropriate because all utilities, regardless of service type, must perform customer account services activities, including updating customer records for meter reads, printing and mailing bills, and collecting and processing customer payments. Electric utility costs are available from the FERC Form 1; thus, there is appropriate data transparency. The selection of electric utilities from Missouri and neighboring states provides a sufficiently sized comparison group.



III – Service Company Cost Comparison Approach

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to MAWC and determining if these services would be required if MAWC were a stand-alone utility.

IV – Question 1 – Reasonableness of Service Company Charges

Methodology

Utility service companies deliver a variety of services. Some may support their regulated utility affiliate’s operations-related functions (e.g., transmission, distribution). All utility service companies, however, provide A&G services to their affiliates. This is the case because considerable economies of scale derive from centralizing the management of corporate A&G services such as finance, human resources and T&I. Because A&G-related services are delivered by all utility service companies, this study uses A&G charges per customer as the metric by which to test the reasonableness of affiliate charges.

MAWC’s Service Company A&G Cost per Customer

During 2019, MAWC was charged \$63 per customer by Service Company for A&G-related services. The calculation of this amount, shown in the table below, starts with total Service Company charges and adjusts for capital and non-A&G function (e.g., engineering, operations and water quality) charges. These adjustments are necessary to develop a per-customer cost that can be compared to the cost of the utility service company comparison group.

	2019
Total Service Company Charges	\$ 45,659,195
Less: Capital Charges	\$ (13,385,058)
Less: Non-A&G Charges	
Engineering	\$ (587,838)
Operations	\$ (910,332)
Water Quality	\$ (130,718)
Net A&G Service Company Charges	\$ 30,645,250
MAWC Customer Count	484,517
MAWC A&G SC Charges per Customer	\$ 63

Comparison Group Cost Per Customer

Every centralized service company in a holding company system subject to regulation by the FERC must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act, and 18 Code of Federal Regulations paragraph 366.23. The Form 60 is designed to collect financial information from service companies within a holding company structure.

Charges to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity’s FERC Form 60. Information from Form 60 schedule Account 457 – Analysis of Billing – Associate Companies was also used to isolate and eliminate charges to non-regulated affiliates from the cost pool used to calculate A&G expenses per regulated service customer.

For 2018, a Form 60 was filed by service companies associated with 24 utility holding companies. These service companies support utilities that provide regulated electric and, in some cases, gas service to retail customers.

IV – Question 1 – Reasonableness of Service Company Charges

FERC Form 60 shows service company charges to affiliates by FERC account. The table below shows a list of FERC A&G accounts and designates which correspond to services the Service Company provides to MAWC. Amounts in the designated FERC accounts are included in the calculation of service company A&G expenses per regulated customer.

FERC Account	Included In Cost Calculation
901 - Supervision	X
902 - Meter reading expenses	
903 - Customer records and collection expenses	X
904 - Uncollectible accounts	
905 - Miscellaneous customer accounts expenses	X
907 - Supervision	
908 - Customer assistance expenses	
909 - Informational And Instructional Advertising Expenses	
910 - Miscellaneous Customer Service And Informational Exp	X
911 - Supervision	
912 - Demonstrating and Selling Expenses	
913 - Advertising Expenses	
916 - Miscellaneous Sales Expenses	
920 - Administrative and General Salaries	X
921 - Office Supplies and Expenses	X
923 - Outside Services Employed	X
924 - Property Insurance	X
925 - Injuries and Damages	
926 - Employee Pensions and Benefits	X
928 - Regulatory Commission Expenses	
930.1 - General Advertising Expenses	
930.2 - Miscellaneous General Expenses	X
931 - Rents	X
935 - Maintenance of Structures and Equipment	X

The A&G expenses per regulated utility customer for the 24 utility companies whose service companies filed a Form 60 for 2018 are calculated in Table 1 (page 11).

Table 2 (page 12) shows MAWC's Evaluation Year Service Company cost per customer of \$63 to be lower than the average of \$110 per customer for the comparison group service companies. Twenty-one of the 24 comparison group service companies had higher per-customer A&G costs than MAWC's charges from the Service Company. Based on this result, it is possible to conclude that the Service Company's charges to MAWC were reasonable.

Table 1

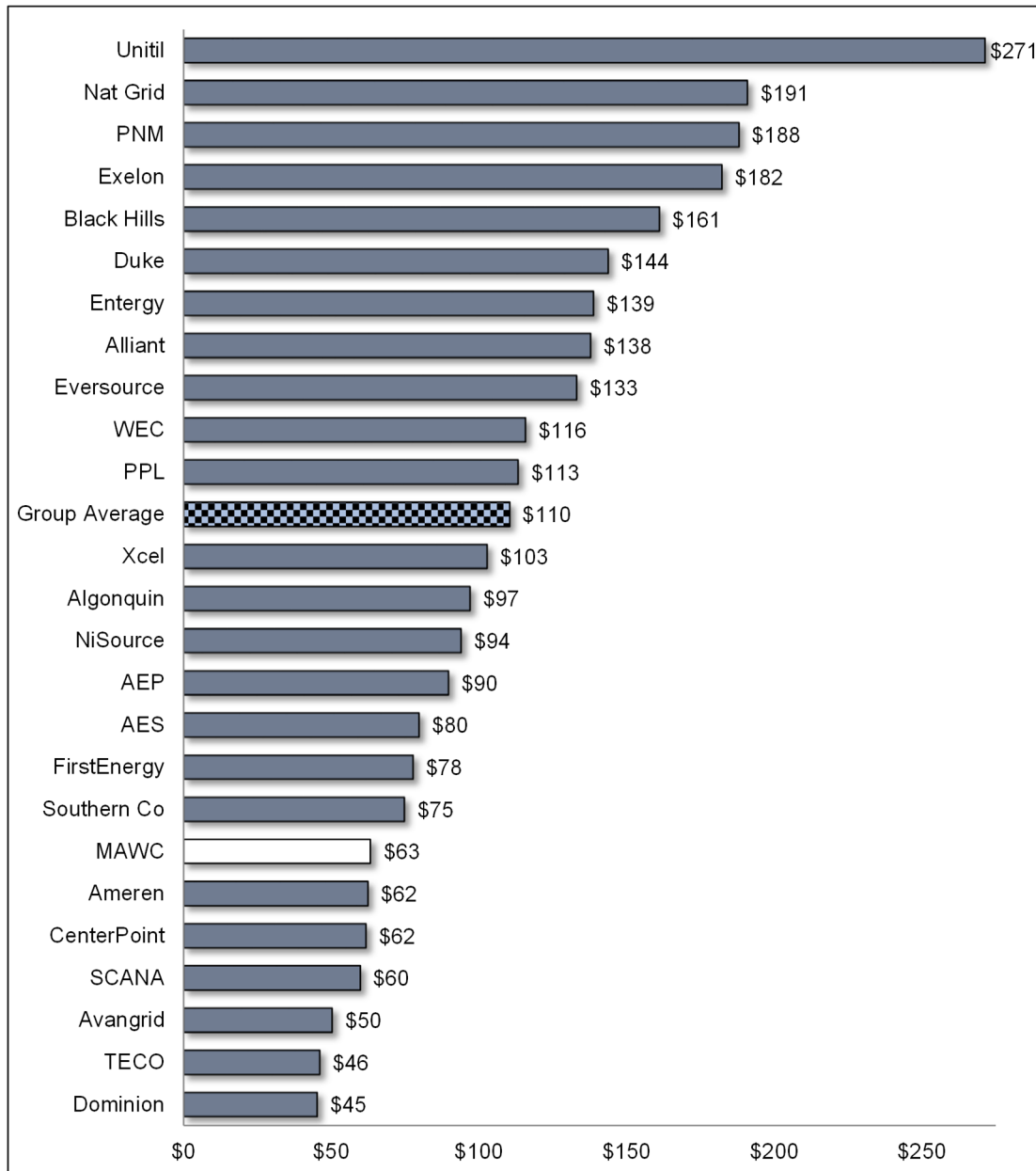
Missouri American Water Company, Inc.
Calculation of 2018 Service Company A&G Expenses Per Customer

Utility Company	Retail Service Company A&G Expenses	Regulated Retail Customers	Cost per Customer
AEP	\$ 484,049,781	5,400,000	\$ 90
AES	\$ 60,595,090	760,363	\$ 80
Algonquin	\$ 58,060,459	599,000	\$ 97
Alliant	\$ 190,233,088	1,380,688	\$ 138
Ameren	\$ 205,559,876	3,300,000	\$ 62
Avangrid	\$ 160,829,920	3,200,000	\$ 50
Black Hills	\$ 193,265,896	1,200,000	\$ 161
CenterPoint	\$ 365,837,151	5,923,429	\$ 62
Dominion	\$ 225,914,181	5,000,000	\$ 45
Duke	\$ 1,336,101,135	9,300,000	\$ 144
Entergy	\$ 430,086,378	3,100,000	\$ 139
Eversource	\$ 484,549,188	3,643,000	\$ 133
Exelon	\$ 1,821,608,837	10,000,000	\$ 182
FirstEnergy	\$ 465,651,717	6,000,000	\$ 78
Nat Grid	\$ 1,316,939,956	6,900,000	\$ 191
NiSource	\$ 365,027,769	3,886,000	\$ 94
PNM	\$ 99,240,311	528,000	\$ 188
PPL	\$ 305,600,670	2,700,000	\$ 113
SCANA	\$ 134,903,853	2,258,300	\$ 60
Southern Co	\$ 672,479,493	9,000,000	\$ 75
TECO	\$ 76,917,009	1,670,000	\$ 46
Unitil	\$ 51,070,829	188,300	\$ 271
WEC	\$ 356,626,220	3,081,300	\$ 116
Xcel	\$ 575,049,933	5,600,000	\$ 103
Total	\$ 10,436,198,740	94,618,380	\$ 110

Source: FERC Form 60; Baryenbruch & Company, LLC, analysis

Table 2

Missouri American Water Company, Inc.
Comparison of Service Company A&G Expenses Per Customer



Source: Company information; FERC Form 60; Baryenbruch & Company, LLC, analysis

V – Question 2 – Provision of Services at the Lower of Cost or Market

Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services, it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial and rates and revenues services
- T&I Professionals – information technology services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar scientific educational backgrounds as Service Company engineering personnel. Thus, it is appropriate to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rates were calculated for each of the five outside service provider categories, based on the dollars and hours charged to MAWC during 2019. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged to MAWC during 2019, its hourly rates are actually overstated because some Service Company personnel charge a maximum of 8 hours per day even when they work more. Outside service providers generally bill for every hour worked. If all additional hours worked by Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the lower-of-cost-or-market comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

Service Company Hourly Rates

Table 3 (page 15) details the assignment of Evaluation Year management and professional Service Company charges by outsider provider category. Table 4 (page 16) shows the same assignment for Service Company management and professional hours charged to MAWC during 2019.

Adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following non-labor Service Company charges for 2019:

- Contract Services – Evaluation Year Service Company charges to MAWC include expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

V – Question 2 – Provision of Services at the Lower of Cost or Market

- Travel Expenses – In general, client-related travel expenses incurred by outside service providers are not recovered through their hourly billing rates. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- T&I Infrastructure Expenses – Included in 2019 Service Company charges to MAWC are leases, maintenance fees and depreciation related to American Water’s enterprise computing and network infrastructure and corporate business applications. An outside provider that would take over operation of this infrastructure would recover these expenses over and above the cost of personnel necessary to operate the data center.
- Non-Service-Related Expenses – These are corporate expenses such current and deferred income tax expense, line of credit fees and board expenses. These are not related to the provision of services by Service Company personnel and have been excluded.

Table 5 (page 17) shows how contract services, travel expenses, T&I infrastructure and non-service-related Service Company charges are assigned to the four outside provider categories.

Based on the assignment of expenses and hours shown in Table 3 and 4 and the excludable items shown in Table 5, the Service Company's equivalent costs per hour for 2019 are calculated below.

American Water Works Service Company, Inc. - 2019 Hourly Rates by Category of Service

	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Total management, professional & technical services charges	\$ 1,992,693	\$ 10,055,585	\$ 6,430,906	\$ 18,796,554	\$ 1,743,603	\$ 39,019,341
Less: Exclusions						
Contract services	\$ 273,127	\$ 715,868	\$ 961,927	\$ 9,729,136	\$ 78,795	\$ 11,758,854
IT infrastructure expenses	\$ -	\$ 2,157,103	\$ -	\$ 2,991,728	\$ -	\$ 5,148,831
Non-service related expenses	\$ 182,633	\$ (168,904)	\$ 51,646	\$ 283,404	\$ 82,701	\$ 431,480
Travel expenses	\$ 27,244	\$ 197,621	\$ 143,443	\$ 96,054	\$ 87,587	\$ 551,948
Total Exclusions	\$ 483,005	\$ 2,901,688	\$ 1,157,016	\$ 13,100,322	\$ 249,082	\$ 17,891,112
Net Service-Related Charges (A)	\$ 1,509,689	\$ 7,153,897	\$ 5,273,890	\$ 5,696,232	\$ 1,494,521	\$ 21,128,229
Total Hours (B)	5,595	39,809	48,814	45,110	12,557	151,885
Average Hourly Rate (A / B)	\$ 270	\$ 180	\$ 108	\$ 126	\$ 119	

Table 3

Missouri American Water Company, Inc.
2019 Service Company Charges by Location and Function

		2019 Service Company Charges					
Location	Function	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Belleville Lab	Water Quality	\$ -	\$ -	\$ -	\$ -	\$ 130,718	\$ 130,718
Call Centers	Human Resources	\$ -	\$ 26,969	\$ -	\$ -	\$ -	\$ 26,969
Corporate	Accounting	\$ -	\$ -	\$ 2,488,177	\$ -	\$ -	\$ 2,488,177
	Administration	\$ -	\$ 3,272,658	\$ -	\$ -	\$ -	\$ 3,272,658
	Audit	\$ -	\$ -	\$ 361,798	\$ -	\$ -	\$ 361,798
	Business Development	\$ -	\$ 340,439	\$ -	\$ -	\$ -	\$ 340,439
	Communications	\$ -	\$ 674,270	\$ -	\$ -	\$ -	\$ 674,270
	Engineering	\$ -	\$ -	\$ -	\$ -	\$ 1,610,666	\$ 1,610,666
	External Affairs	\$ -	\$ 315,278	\$ -	\$ -	\$ -	\$ 315,278
	Finance	\$ -	\$ 286,826	\$ 2,249,444	\$ -	\$ -	\$ 2,536,270
	Human Resources	\$ -	\$ 2,468,608	\$ -	\$ -	\$ -	\$ 2,468,608
	Information Technology	\$ -	\$ -	\$ -	\$ 661,483	\$ -	\$ 661,483
	Legal	\$ 1,563,860	\$ -	\$ -	\$ -	\$ -	\$ 1,563,860
	Operations	\$ -	\$ 1,186,771	\$ -	\$ -	\$ -	\$ 1,186,771
	Rates & Regulatory	\$ -	\$ -	\$ 6,749	\$ -	\$ -	\$ 6,749
	Supply Chain	\$ -	\$ -	\$ 942,415	\$ -	\$ -	\$ 942,415
Regional Offices	Administration	\$ -	\$ 617,984	\$ -	\$ -	\$ -	\$ 617,984
	Business Development	\$ -	\$ 249,721	\$ -	\$ -	\$ -	\$ 249,721
	Engineering	\$ -	\$ -	\$ -	\$ -	\$ 2,219	\$ 2,219
	External Affairs	\$ -	\$ 175,913	\$ -	\$ -	\$ -	\$ 175,913
	Finance	\$ -	\$ -	\$ 330,594	\$ -	\$ -	\$ 330,594
	Human Resources	\$ -	\$ 103,075	\$ -	\$ -	\$ -	\$ 103,075
	Legal	\$ 428,834	\$ -	\$ -	\$ -	\$ -	\$ 428,834
	Operations	\$ -	\$ 32,500	\$ -	\$ -	\$ -	\$ 32,500
	Rates & Regulatory	\$ -	\$ -	\$ 51,729	\$ -	\$ -	\$ 51,729
Innov & Technology	Information Technology	\$ -	\$ 304,574	\$ -	\$ 18,135,071	\$ -	\$ 18,439,645
Total Dollars Charged		\$ 1,992,693	\$ 10,055,585	\$ 6,430,906	\$ 18,796,554	\$ 1,743,603	\$ 39,019,341

Table 4

Missouri American Water Company, Inc.
2019 Service Company Hours by Location and Function

Location	Function	2019 Service Company Hours					Total
		Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	
Belleville Lab	Water Quality	-	-	-	-	507	507
Call Centers	Human Resources	-	184	-	-	-	184
Corporate	Accounting	-	-	23,022	-	-	23,022
	Administration	-	2,697	-	-	-	2,697
	Audit	-	-	1,690	-	-	1,690
	Business Development	-	1,284	-	-	-	1,284
	Communications	-	3,590	-	-	-	3,590
	Engineering	-	-	-	-	12,044	12,044
	External Affairs	-	481	-	-	-	481
	Finance	-	907	11,624	-	-	12,532
	Human Resources	-	18,502	-	-	-	18,502
	Information Technology	-	-	-	5,851	-	5,851
	Legal	3,566	-	-	-	-	3,566
	Operations	-	4,036	-	-	-	4,036
	Rates & Regulatory	-	-	-	-	-	-
Supply Chain	-	-	9,659	-	-	9,659	
Regional Offices	Administration	-	3,660	-	-	-	3,660
	Business Development	-	1,592	-	-	-	1,592
	Engineering	-	-	-	-	6	6
	External Affairs	-	1,023	-	-	-	1,023
	Finance	-	-	2,817	-	-	2,817
	Human Resources	-	1,016	-	-	-	1,016
	Legal	2,029	-	-	-	-	2,029
	Operations	-	260	-	-	-	260
	Rates & Regulatory	-	-	3	-	-	3
Innov & Technology	Information Technology	-	579	-	39,259	-	39,838
Total Hours Charged		5,595	39,809	48,814	45,110	12,557	151,885

Table 5

Missouri American Water Company, Inc.
2019 Service Company Charges Excludable from the Hourly Rate Calculation

Charges By Function	Exclusions From Hourly Rate Calculation					Outside Service Provider Category
	Contract Services	Enterprise IT Expenses	Non-Services-Related Items	Travel Expenses	Total	
Accounting	\$ 539,751		\$ (205,979)	\$ 37,814	\$ 371,586	Certified Public Accountant
Administration	\$ 187,542	\$ 2,157,103	\$ (293,761)	\$ 55,389	\$ 2,106,273	Management Consultant
Audit	\$ 162,533		\$ 2,698	\$ 3,040	\$ 168,271	Certified Public Accountant
Business Development	\$ 5,094		\$ 35,855	\$ 36,444	\$ 77,393	Management Consultant
Communications	\$ 110,721		\$ 6,625	\$ 18,525	\$ 135,872	Management Consultant
Engineering	\$ 31,454		\$ 5,090	\$ 35,321	\$ 71,865	Professional Engineer
External Affairs	\$ 26,332		\$ 17,381	\$ 28,548	\$ 72,261	Management Consultant
Finance	\$ 245,092		\$ 253,837	\$ 68,291	\$ 567,220	Certified Public Accountant
Human Resources	\$ 386,179		\$ 64,996	\$ 58,715	\$ 509,889	Management Consultant
Information Technology	\$ 9,729,136	\$ 2,991,728	\$ 283,404	\$ 96,054	\$ 13,100,322	IT Professional
Legal	\$ 273,127		\$ 182,633	\$ 27,244	\$ 483,005	Attorney
Operations	\$ 75,685		\$ 29,126	\$ 51,703	\$ 156,513	Professional Engineer
Rates & Regulatory	\$ 9		\$ 5	\$ (61)	\$ (46)	Certified Public Accountant
Supply Chain	\$ 14,542		\$ 1,085	\$ 34,359	\$ 49,986	Certified Public Accountant
Water Quality	\$ (28,344)		\$ 48,485	\$ 563	\$ 20,703	Professional Engineer
Total	\$ 11,758,854	\$ 5,148,831	\$ 431,480	\$ 551,948	\$ 17,891,112	

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				
	Contract Services	Enterprise IT Expenses	Non-Services-Related Items	Travel Expenses	Total
Attorney	\$ 273,127	\$ -	\$ 182,633	\$ 27,244	\$ 483,005
Management Consultant	\$ 715,868	\$ 2,157,103	\$ (168,904)	\$ 197,621	\$ 2,901,688
Certified Public Accountant	\$ 961,927	\$ -	\$ 51,646	\$ 143,443	\$ 1,157,016
IT Professional	\$ 9,729,136	\$ 2,991,728	\$ 283,404	\$ 96,054	\$ 13,100,322
Professional Engineer	\$ 78,795	\$ -	\$ 82,701	\$ 87,587	\$ 249,082
Total	\$ 11,758,854	\$ 5,148,831	\$ 431,480	\$ 551,948	\$ 17,891,112

V – Question 2 – Provision of Services at the Lower of Cost or Market

Outside Service Provider Hourly Rates

The next step in the lower-of-cost-or-market comparison was to obtain the average billing rates for outside service providers. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among US certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company’s hourly rates to those of the outside professional service providers included in this study.

Position	US Average
Partners/Owners	98%
Directors (11+ years experience)	87%
Managers (6-10 years experience)	79%
Sr Associates (4-5 years experience)	50%
Associates (1-3 years experience)	22%
New Professionals	10%

Source: AICPA’s National PCPS/TSCPA Management of an Accounting Practice Survey (2010)

Attorneys

The Missouri State Bar does not survey its members as to their hourly billing rates. Therefore, an estimate of Missouri attorney rates was developed from a 2017 billing rate survey from National Law Journal. As shown in Table 6 (pages 20-22), data from this survey has been adjusted for cost-of-living differences between each law firm’s location and St. Louis, Missouri. The National Law Review billing survey hourly rates data is for 2017. The calculated average 2017 rate was escalated to June 30, 2019—the midpoint of 2019.

Management Consultants

The cost per hour for management consultants was developed from the 2018 annual survey information from ALM Intelligence, a research firm that follows the management consulting industry. The survey includes rates that were in effect during 2018 for firms throughout the United States. Consultants typically do not limit their practice to any one region and must travel to a client’s location. Thus, in this case the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Table 7 (page 23), was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. The calculated average 2018 rate was escalated to June 30, 2019—the midpoint of 2019.

V – Question 2 – Provision of Services at the Lower of Cost or Market

Certified Public Accountants

The average hourly rate for Missouri CPAs was developed from a 2018 survey performed by the American Institute of Certified Public Accountants (AICPA). The Missouri version of this survey was used to develop hourly rates for member firms in Missouri.

As shown in Table 8 (page 24), a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2017. The calculated average rate was escalated to December 31, 2018—the midpoint of 2019.

Technology and Innovation Professionals

The average hourly rate for technology and innovation consultants and contractors was developed from two sources: Service Company for T&I contractor rates and ALM Intelligence for information technology consultants. As shown in Table 9 (page 25), that data was compiled, and a weighted average was calculated based on a percent of time that is typically applied to a T&I consulting assignment based on Baryenbruch & Company's experience.

Professional Engineers

The Company provided hourly rate information for outside engineering firms that provided MAWC with their rate schedules. As presented in Table 10 (page 26), an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Table 6
Page 1 of 3

Missouri American Water Company, Inc.
Estimated Billing Rates for Missouri Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			(A x B) Adjusted Rate
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices		(B) COL Adjustment	
	Partner	Associate	0.25	0.75	(A) Weighted Average	Law Firm Location	St. Louis, Mo		
Albany, NY	\$ 350	\$ 180	\$ 88	\$ 135	\$ 223	110.9	94.4	85%	\$ 190
Albuquerque, NM	\$ 475	\$ 238	\$ 119	\$ 179	\$ 298	94.3	94.4	100%	\$ 298
Alhambra, CA	\$ 475	\$ 425	\$ 119	\$ 319	\$ 438	131.0	94.4	72%	\$ 316
Amenia, NY	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	110.9	94.4	85%	\$ 224
Arlington, TX	\$ 385	\$ 195	\$ 96	\$ 146	\$ 242	95.7	94.4	99%	\$ 239
Astoria, NY	\$ 425	\$ 325	\$ 106	\$ 244	\$ 350	151.4	94.4	62%	\$ 218
Atlanta, GA	\$ 521	\$ 371	\$ 130	\$ 278	\$ 408	93.5	94.4	101%	\$ 412
Atlantic Beach, FL	\$ 295	\$ 248	\$ 74	\$ 186	\$ 260	95.5	94.4	99%	\$ 257
Austin, TX	\$ 445	\$ 400	\$ 111	\$ 300	\$ 411	92.5	94.4	102%	\$ 420
Baltimore, MD	\$ 432	\$ 295	\$ 108	\$ 221	\$ 329	111.3	94.4	85%	\$ 279
Baton Rouge, LA	\$ 388	\$ 350	\$ 97	\$ 263	\$ 360	91.7	94.4	103%	\$ 371
Beverly Hills, CA	\$ 510	\$ 373	\$ 128	\$ 280	\$ 408	131.0	94.4	72%	\$ 294
Bloomfield Hills, MI	\$ 373	\$ 275	\$ 93	\$ 206	\$ 299	96.1	94.4	98%	\$ 294
Boca Raton, FL	\$ 438	\$ 325	\$ 110	\$ 244	\$ 354	109.5	94.4	86%	\$ 305
Boston, MA	\$ 1,075	\$ 515	\$ 269	\$ 386	\$ 655	140.1	94.4	67%	\$ 442
Brooklyn, NY	\$ 625	\$ 575	\$ 156	\$ 431	\$ 587	175.6	94.4	54%	\$ 316
Buffalo, NY	\$ 288	\$ 175	\$ 72	\$ 131	\$ 203	96.2	94.4	98%	\$ 199
Calabasas, CA	\$ 450	\$ 250	\$ 113	\$ 188	\$ 301	131.0	94.4	72%	\$ 217
Camp Hill, PA	\$ 250	\$ 150	\$ 63	\$ 113	\$ 176	98.9	94.4	96%	\$ 168
Carrollton, GA	\$ 325	\$ 270	\$ 81	\$ 203	\$ 284	94.7	94.4	100%	\$ 283
Cary, NC	\$ 300	\$ 290	\$ 75	\$ 218	\$ 293	94.6	94.4	100%	\$ 292
Cerritos, CA	\$ 400	\$ 188	\$ 100	\$ 141	\$ 241	131.0	94.4	72%	\$ 174
Chapel Hill, NC	\$ 325	\$ 200	\$ 81	\$ 150	\$ 231	110.9	94.4	85%	\$ 197
Charlotte, NC	\$ 435	\$ 303	\$ 109	\$ 227	\$ 336	96.1	94.4	98%	\$ 330
Cherry Hill, NJ	\$ 350	\$ 275	\$ 88	\$ 206	\$ 294	121.2	94.4	78%	\$ 229
Cherry Hill, PA	\$ 425	\$ 350	\$ 106	\$ 263	\$ 369	92.2	94.4	102%	\$ 378
Chicago, IL	\$ 578	\$ 407	\$ 145	\$ 305	\$ 450	117.4	94.4	80%	\$ 362
Claremont, CA	\$ 270	\$ 250	\$ 68	\$ 188	\$ 256	112.0	94.4	84%	\$ 216
Columbia, MO	\$ 250	\$ 250	\$ 63	\$ 188	\$ 251	96.9	94.4	97%	\$ 245
Corpus Christi, TX	\$ 250	\$ 150	\$ 63	\$ 113	\$ 176	91.9	94.4	103%	\$ 181
Dallas, TX	\$ 536	\$ 312	\$ 134	\$ 234	\$ 368	95.7	94.4	99%	\$ 363
Decatur, GA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	93.5	94.4	101%	\$ 354
Denver, CO	\$ 449	\$ 308	\$ 112	\$ 231	\$ 343	104.0	94.4	91%	\$ 311
East Meadow, NY	\$ 425	\$ 413	\$ 106	\$ 310	\$ 416	129.2	94.4	73%	\$ 304
East Orange, NJ	\$ 400	\$ 375	\$ 100	\$ 281	\$ 381	128.4	94.4	74%	\$ 280
El Paso, TX	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	90.8	94.4	104%	\$ 325
Encino, CA	\$ 450	\$ 400	\$ 113	\$ 300	\$ 413	131.0	94.4	72%	\$ 298
Englewood, NJ	\$ 463	\$ 325	\$ 116	\$ 244	\$ 360	133.0	94.4	71%	\$ 256
Escondido, CA	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	129.2	94.4	73%	\$ 237
Fair Oaks, CA	\$ 350	\$ 325	\$ 88	\$ 244	\$ 332	109.8	94.4	86%	\$ 286
Fort Lauderdale, FL	\$ 400	\$ 343	\$ 100	\$ 257	\$ 357	109.5	94.4	86%	\$ 308
Fort Worth, TX	\$ 492	\$ 355	\$ 123	\$ 266	\$ 389	100.1	94.4	94%	\$ 367
Fountain Valley, CA	\$ 350	\$ 200	\$ 88	\$ 150	\$ 238	140.7	94.4	67%	\$ 160
Franklin, TN	\$ 395	\$ 310	\$ 99	\$ 233	\$ 332	86.3	94.4	109%	\$ 363
Frederick, MD	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	127.4	94.4	74%	\$ 222
Freehold, NJ	\$ 500	\$ 500	\$ 125	\$ 375	\$ 500	122.2	94.4	77%	\$ 386
Frisco, TX	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	90.2	94.4	105%	\$ 340
Glendale, CA	\$ 600	\$ 450	\$ 150	\$ 338	\$ 488	131.0	94.4	72%	\$ 352
Granada Hills, CA	\$ 200	\$ 200	\$ 50	\$ 150	\$ 200	131.0	94.4	72%	\$ 144
Grand Rapids, MI	\$ 406	\$ 295	\$ 102	\$ 221	\$ 323	92.5	94.4	102%	\$ 330
Greenbelt, MD	\$ 467	\$ 347	\$ 117	\$ 260	\$ 377	127.4	94.4	74%	\$ 279

Table 6
Page 2 of 3

Missouri American Water Company, Inc.
Estimated Billing Rates for Missouri Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			(A x B) Adjusted Rate
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices		(B) COL Adjustment	
	Partner	Associate	0.25 Partner	0.75 Associate	(A) Weighted Average	Law Firm Location	St. Louis, Mo		
Greensburg, PA	\$ 400	\$ 195	\$ 100	\$ 146	\$ 246	92.2	94.4	102%	\$ 252
Grosse Pointe Woods, MI	\$ 375	\$ 250	\$ 94	\$ 188	\$ 282	96.1	94.4	98%	\$ 277
Hackensack, NJ	\$ 658	\$ 305	\$ 165	\$ 229	\$ 394	133.0	94.4	71%	\$ 280
Harrisburg, PA	\$ 292	\$ 225	\$ 73	\$ 169	\$ 242	98.9	94.4	96%	\$ 231
Harrisonburg, VA	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	97.7	94.4	97%	\$ 254
Hawthorne, NJ	\$ 425	\$ 400	\$ 106	\$ 300	\$ 406	133.0	94.4	71%	\$ 288
Houston, TX	\$ 522	\$ 345	\$ 131	\$ 259	\$ 390	99.0	94.4	95%	\$ 372
Huntingdon Valley, PA	\$ 220	\$ 125	\$ 55	\$ 94	\$ 149	121.2	94.4	78%	\$ 116
Indianapolis, IN	\$ 452	\$ 337	\$ 113	\$ 253	\$ 366	91.1	94.4	104%	\$ 379
Irvine, CA	\$ 402	\$ 325	\$ 101	\$ 244	\$ 345	140.7	94.4	67%	\$ 231
Jacksonville, FL	\$ 350	\$ 250	\$ 88	\$ 188	\$ 276	95.5	94.4	99%	\$ 273
Johnstown, PA	\$ 250	\$ 250	\$ 63	\$ 188	\$ 251	92.2	94.4	102%	\$ 257
Kansas City, MO	\$ 407	\$ 305	\$ 102	\$ 229	\$ 331	98.0	94.4	96%	\$ 319
Knoxville, TN	\$ 269	\$ 225	\$ 67	\$ 169	\$ 236	88.5	94.4	107%	\$ 252
LaGrange, IL	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	97.4	94.4	97%	\$ 388
Las Vegas, NV	\$ 383	\$ 338	\$ 96	\$ 253	\$ 349	102.7	94.4	92%	\$ 321
Long Beach, CA	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	131.0	94.4	72%	\$ 288
Los Angeles, CA	\$ 515	\$ 404	\$ 129	\$ 303	\$ 432	131.0	94.4	72%	\$ 311
Mamaroneck, NY	\$ 495	\$ 375	\$ 124	\$ 281	\$ 405	151.4	94.4	62%	\$ 253
Manasquan, NJ	\$ 400	\$ 250	\$ 100	\$ 188	\$ 288	122.2	94.4	77%	\$ 222
Maple Shade, NJ	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	121.2	94.4	78%	\$ 238
McAllen, TX	\$ 250	\$ 213	\$ 63	\$ 159	\$ 222	86.3	94.4	109%	\$ 243
Metairie, LA	\$ 350	\$ 180	\$ 88	\$ 135	\$ 223	98.2	94.4	96%	\$ 214
Miami, FL	\$ 338	\$ 300	\$ 84	\$ 225	\$ 309	107.2	94.4	88%	\$ 272
Middletown, NY	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	110.9	94.4	85%	\$ 341
Minden, NV	\$ 363	\$ 200	\$ 91	\$ 150	\$ 241	90.1	94.4	105%	\$ 252
Minneapolis, MN	\$ 680	\$ 463	\$ 170	\$ 347	\$ 517	110.3	94.4	86%	\$ 442
Murrieta, CA	\$ 250	\$ 175	\$ 63	\$ 131	\$ 194	112.0	94.4	84%	\$ 164
Nashville, TN	\$ 413	\$ 338	\$ 103	\$ 253	\$ 356	86.3	94.4	109%	\$ 390
New City, NY	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	151.4	94.4	62%	\$ 250
New Orleans, LA	\$ 388	\$ 235	\$ 97	\$ 176	\$ 273	98.2	94.4	96%	\$ 263
New York, NY	\$ 748	\$ 501	\$ 187	\$ 376	\$ 563	221.3	94.4	43%	\$ 240
Newark, NJ	\$ 735	\$ 495	\$ 184	\$ 371	\$ 555	128.4	94.4	74%	\$ 408
Newport Beach, CA	\$ 595	\$ 425	\$ 149	\$ 319	\$ 468	131.0	94.4	72%	\$ 337
Newton, MA	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	140.1	94.4	67%	\$ 211
North Andover, MA	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	140.1	94.4	67%	\$ 206
North Bergen, NJ	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	133.0	94.4	71%	\$ 231
Northbrook, IL	\$ 425	\$ 363	\$ 106	\$ 272	\$ 378	117.4	94.4	80%	\$ 304
Oakland, CA	\$ 575	\$ 575	\$ 144	\$ 431	\$ 575	134.9	94.4	70%	\$ 403
Okemos, MI	\$ 300	\$ 205	\$ 75	\$ 154	\$ 229	87.9	94.4	107%	\$ 246
Ontario, CA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	112.0	94.4	84%	\$ 296
Orlando, FL	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	95.9	94.4	99%	\$ 394
Palo Alto, CA	\$ 1,100	\$ 735	\$ 275	\$ 551	\$ 826	148.8	94.4	63%	\$ 524
Philadelphia, PA	\$ 653	\$ 406	\$ 163	\$ 305	\$ 468	121.2	94.4	78%	\$ 365
Phoenix, AZ	\$ 462	\$ 276	\$ 115	\$ 207	\$ 322	97.3	94.4	97%	\$ 313
Pittsburgh, PA	\$ 375	\$ 226	\$ 94	\$ 170	\$ 264	92.2	94.4	102%	\$ 270
Plano, TX	\$ 400	\$ 163	\$ 100	\$ 122	\$ 222	96.6	94.4	98%	\$ 217
Portland, OR	\$ 375	\$ 345	\$ 94	\$ 259	\$ 353	119.1	94.4	79%	\$ 280
Red Bank, NJ	\$ 425	\$ 250	\$ 106	\$ 188	\$ 294	122.2	94.4	77%	\$ 227
Richmond, VA	\$ 522	\$ 333	\$ 130	\$ 250	\$ 380	99.7	94.4	95%	\$ 360
Ridgeland, MS	\$ 375	\$ 225	\$ 94	\$ 169	\$ 263	89.0	94.4	106%	\$ 279

Missouri American Water Company, Inc.
Estimated Billing Rates for Missouri Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			(A x B) Adjusted Rate
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices		(B) COL Adjustment	
	Partner	Associate	0.25 Partner	0.75 Associate	(A) Weighted Average	Law Firm Location	St. Louis, Mo		
Roanoke, VA	\$ 365	\$ 216	\$ 91	\$ 162	\$ 253	92.0	94.4	103%	\$ 260
Royal Oak, MI	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	96.1	94.4	98%	\$ 307
Sacramento, CA	\$ 400	\$ 250	\$ 100	\$ 188	\$ 288	109.8	94.4	86%	\$ 248
San Antonio, TX	\$ 315	\$ 271	\$ 79	\$ 203	\$ 282	87.6	94.4	108%	\$ 304
San Diego, CA	\$ 475	\$ 362	\$ 119	\$ 271	\$ 390	129.2	94.4	73%	\$ 285
San Francisco, CA	\$ 443	\$ 377	\$ 111	\$ 282	\$ 393	159.9	94.4	59%	\$ 232
San Jose, CA	\$ 438	\$ 350	\$ 109	\$ 263	\$ 372	148.8	94.4	63%	\$ 236
San Mateo, CA	\$ 495	\$ 395	\$ 124	\$ 296	\$ 420	159.9	94.4	59%	\$ 248
Santa Ana, CA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	140.7	94.4	67%	\$ 235
Santa Barbara, CA	\$ 438	\$ 300	\$ 110	\$ 225	\$ 335	131.0	94.4	72%	\$ 241
Santa Clara, CA	\$ 475	\$ 400	\$ 119	\$ 300	\$ 419	148.8	94.4	63%	\$ 266
Santa Clarita, CA	\$ 438	\$ 300	\$ 110	\$ 225	\$ 335	112.0	94.4	84%	\$ 282
Santa Monica, CA	\$ 575	\$ 350	\$ 144	\$ 263	\$ 407	131.0	94.4	72%	\$ 293
Santa Rosa Beach, FL	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	97.6	94.4	97%	\$ 290
Scottsdale, AZ	\$ 300	\$ 213	\$ 75	\$ 160	\$ 235	113.9	94.4	83%	\$ 195
Seattle, WA	\$ 425	\$ 310	\$ 106	\$ 233	\$ 339	117.5	94.4	80%	\$ 273
Sherman Oaks, CA	\$ 405	\$ 350	\$ 101	\$ 263	\$ 364	131.0	94.4	72%	\$ 262
Southfield, MI	\$ 330	\$ 245	\$ 83	\$ 184	\$ 267	96.1	94.4	98%	\$ 262
Spring Lake, NJ	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	122.2	94.4	77%	\$ 236
Springfield, NJ	\$ 375	\$ 300	\$ 94	\$ 225	\$ 319	128.4	94.4	74%	\$ 235
St. Louis, MO	\$ 556	\$ 351	\$ 139	\$ 263	\$ 402	94.4	94.4	100%	\$ 402
Staten Island, NY	\$ 450	\$ 425	\$ 113	\$ 319	\$ 432	151.4	94.4	62%	\$ 270
Sugar Land, TX	\$ 450	\$ 400	\$ 113	\$ 300	\$ 413	99.0	94.4	95%	\$ 394
Tampa, FL	\$ 385	\$ 290	\$ 96	\$ 218	\$ 314	92.9	94.4	102%	\$ 319
Tempe, AZ	\$ 380	\$ 240	\$ 95	\$ 180	\$ 275	97.3	94.4	97%	\$ 267
The Woodlands, TX	\$ 600	\$ 600	\$ 150	\$ 450	\$ 600	95.0	94.4	99%	\$ 596
Tucker, GA	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	93.5	94.4	101%	\$ 316
Tucson, AZ	\$ 400	\$ 343	\$ 100	\$ 257	\$ 357	96.4	94.4	98%	\$ 350
Upper Marlboro, MD	\$ 425	\$ 380	\$ 106	\$ 285	\$ 391	111.3	94.4	85%	\$ 332
Ventura, CA	\$ 350	\$ 235	\$ 88	\$ 176	\$ 264	131.0	94.4	72%	\$ 190
Wantagh, NY	\$ 595	\$ 415	\$ 149	\$ 311	\$ 460	129.2	94.4	73%	\$ 336
Washington, DC	\$ 781	\$ 510	\$ 195	\$ 382	\$ 577	141.6	94.4	67%	\$ 385
Wayne, NJ	\$ 425	\$ 375	\$ 106	\$ 281	\$ 387	128.4	94.4	74%	\$ 285
West Orange, NJ	\$ 563	\$ 275	\$ 141	\$ 206	\$ 347	128.4	94.4	74%	\$ 255
West Palm Beach, TX	\$ 425	\$ 425	\$ 106	\$ 319	\$ 425	90.1	94.4	105%	\$ 446
Wheaton, IL	\$ 405	\$ 350	\$ 101	\$ 263	\$ 364	117.4	94.4	80%	\$ 293
White Plains, NY	\$ 463	\$ 354	\$ 116	\$ 266	\$ 382	151.4	94.4	62%	\$ 238
Wilmette, IL	\$ 450	\$ 395	\$ 113	\$ 296	\$ 409	117.4	94.4	80%	\$ 329
Wilmington, DE	\$ 703	\$ 359	\$ 176	\$ 269	\$ 445	108.4	94.4	87%	\$ 388
Winston-Salem, NC	\$ 525	\$ 375	\$ 131	\$ 281	\$ 412	87.9	94.4	107%	\$ 443
Woodland Hills, CA	\$ 625	\$ 485	\$ 156	\$ 364	\$ 520	131.0	94.4	72%	\$ 375
York, PA	\$ 345	\$ 235	\$ 86	\$ 176	\$ 262	98.9	94.4	96%	\$ 250
2017 Average Billing Rate									\$ 292

Escalation to Test Period Midpoint (December 31, 2019)

CPI at December 31, 2017	246.5
CPI at December 31, 2019	256.1
Inflation/Escalation (Note B)	3.9%
Average Hourly Billing Rate For Attorneys At December 31, 2019	\$ 303

Note A: National Law Journal 2017 Billing Survey

Note B: Cost of Living Index, Source Council for Community and Economic Research

Note C: U.S. Bureau of Labor Statistics (<https://data.bls.gov/cgi-bin/surveymost>)

Table 7

Missouri American Water Company, Inc.
Billing Rates of U.S. Management Consultants

Survey billing rates in effect in 2018 (Note A)

A. Calculation of Average Hourly Billing Rate by Consultant Position

Average Hourly Rates (Note A)				
Analyst		Sr. Assoc/		
Consultant	Associate	Manager	Principal	Partner
\$ 217	\$ 244	\$ 303	\$ 461	\$ 540

Average

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 217	\$ 244	\$ 303	\$ 461	\$ 540	
Percent of Consulting Assignment	30%	30%	25%	10%	5%	Weighted Average
	\$ 65	\$ 73	\$ 76	\$ 46	\$ 27	\$ 287

Escalation to Test Period Midpoint (June 30, 2019)

CPI at December 31, 2018	251.2
CPI at June 30, 2019	256.1
Inflation/Escalation (Note B)	<u>2.0%</u>
Average Hourly Billing Rate For Management Consultants At June 30, 2019	<u>\$ 293</u>

Note A: Source is ALM Intelligence

Table 8

Missouri American Water Company, Inc.
Billing Rates of Missouri Certified Public Accountants

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2017 (Note A)					
<u>Average Hourly Billing Rate (Note A)</u>					
	Staff Accountant	Senior Accountant	Director/ Manager	Partner	
Average Hourly Billing Rate by CPA Firm Position	\$ 106	\$ 140	\$ 194	\$ 232	
Percent of Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 32	\$ 42	\$ 39	\$ 46	\$ 159
<u>Escalation to Test Period Midpoint (June 30, 2019)</u>					
					246.5
					CPI at December 31, 2017
					256.1
					CPI at June 30, 2019
					3.9%
					Inflation/Escalation (Note B)
					\$ 165
					Average Hourly Billing Rate For CPAs During 2019

Note A: Source is AICPA's 2018 National PCPS/TSCPA Management of an Accounting Practice Survey (Missouri edition)

Note B: Source is U.S. Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

Table 9

Missouri American Water Company, Inc.
Billing Rates of Technology and Innovation Professionals

A. Calculation of Average Hourly Billing Rate by Information Technology Position
Survey billing rates were those in effect in 2019 (Note A)

		Average Hourly Billing Rate (Note A)				
		Contractor Positions		Consultant Positions		
		Contractor	Senior Contractor	Associate	Manager	Partner
Average Hourly Billing Rate by IT Position Category		\$ 113	\$ 158	\$ 231	\$ 341	\$ 423
Percent of IT Assignment		25%	25%	25%	15%	10%
		\$ 28	\$ 39	\$ 58	\$ 51	\$ 42
	Weighted Average					\$ 219

Note A: Source is AEPSC, ALM Intelligence and Baryenbruch & Company, LLC

Table 10

Missouri American Water Company, Inc.
Billing Rates of Missouri Engineers

A. Calculation of Average 2019 Hourly Rate by Engineer Position (Note A)				
Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$97	\$109	\$181	\$232
Firm #2	\$103	\$121	\$161	\$220
Firm #3	na	\$164	na	\$222
Firm #4	\$100	\$122	\$172	\$210
Firm #5	\$139	\$186	\$241	\$249
Firm #6	\$153	\$142	\$210	\$261
Firm #7	\$83	\$111	\$199	\$245
Firm #8	\$72	\$127	\$213	\$275
Firm #9	\$101	\$128	\$153	\$297
Firm #10	\$110	\$119	\$177	\$220

B. Calculation of Overall Average Engineering Hourly Billing Rate					
	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$106	\$133	\$189	\$243	
Typical Percent of Time on an Engineering Assignment	13%	31%	46%	10%	
	\$14	\$41	\$86	\$25	\$167

Note A: Source is American Water Service Company Information

V – Question 2 – Provision of Services at the Lower of Cost or Market

Service Company versus Outside Provider Cost Comparison

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	2019		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 270	\$ 303	\$ (33)
Management Consultant	\$ 180	\$ 293	\$ (113)
Certified Public Accountant	\$ 108	\$ 165	\$ (57)
T&I Professional	\$ 126	\$ 219	\$ (93)
Professional Engineer	\$ 119	\$ 167	\$ (48)

Based on these cost-per-hour differentials and the number of managerial and professional services hours billed to MAWC during 2019, outside service providers would have cost \$12,263,416 more than the Service Company (see table below). Thus, on average, outside providers' hourly rates are 58% higher than those of the Service Company (\$12,263,416 / \$21,128,229).

Service Provider	2019		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (33)	5,595	\$ (184,635)
Management Consultant	\$ (113)	39,809	\$ (4,498,417)
Certified Public Accountant	\$ (57)	48,814	\$ (2,782,398)
T&I Professional	\$ (93)	45,110	\$ (4,195,230)
Professional Engineer	\$ (48)	12,557	\$ (602,736)
Service Company Less Than Outside Providers			\$ (12,263,416)

It should be noted that the cost differential associated with using outside providers is even greater because exempt Service Company personnel do not charge more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. Thus, MAWC would have been charged by outside providers for overtime worked by Service Company personnel who are not paid for that time.

If MAWC were to use outside service providers rather than Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform almost 152,000 hours of work (approximately 84 full-time equivalents at 1,800 "billable" hours per FTE per year) would add a significant workload to the existing MAWC management team. Thus, it would be necessary for MAWC to add at least 3 positions to supervise the outside firms and ensure they deliver quality and timely services. The individuals who would fill these positions would need a good understanding of each profession being managed. These persons must also have management experience and the authority necessary to provide credibility with the outside firms. As calculated in the table below, the new positions would add \$541,200 per year to MAWC's personnel expenses.

V – Question 2 – Provision of Services at the Lower of Cost or Market

Cost of Adding 3 Professional Positions To MAWC's Staff

	<u>Total</u>
New Positions' Salary	\$ 110,000
Benefits (at 49%)	\$ 53,900
Office Expenses (15%)	<u>\$ 16,500</u>
Total Cost per Position	\$ 180,400
Number of Positions Required	<u>3</u>
Total Cost of Added NJAWC Staff	<u>\$ 541,200</u>

Thus, the total effect on MAWC customers of contracting all services now provided by Service Company would be an increase in their costs of \$12,804,616 (\$12,263,416 + \$541,200). Based on the results of this comparison, it is possible to conclude that the Service Company charged MAWC at the lower of cost or market for services provided during 2019.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

Background

Customer Accounts Services involve the processes that occur from the time meter-read data is recorded in the customer information system through the printing and mailing of bills, concluding with the collection and processing of customer payments. Customer Accounts Services are accomplished by the following utility functions:

- Customer Call Center Operations – customer calls/contact, credit, order taking/disposition, bill collection efforts and outage calls
- Customer Call Center Maintenance – support of phone banks, voice recognition units, call center software applications and telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – processing customer payments at locations where customers can pay their bills in person

Neighboring electric utility cost information comes from the FERC Form 1 that each utility subject to FERC regulation must file. FERC’s chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain expenses related to customer accounts services are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Table 11 provides FERC’s definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overhead charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA)

Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 reports show amounts for accounts 903 and 905.

Utility	State
Ameren Missouri	Missouri
Empire District Electric	Missouri
KCP&L	Missouri
KCP&L Missouri	Missouri
Ameren Illinois	Illinois
Commonwealth Edison	Illinois
MidAmerica Energy	Illinois
Duke Energy Kentucky	Kentucky
Kentucky Power	Kentucky
Kentucky Utilities	Kentucky
Louisville G&E	Kentucky
Entergy Arkansas	Arkansas
Oklahoma G&E	Oklahoma
PS of Oklahoma	Oklahoma
Kansas G&E	Kansas
Westar Energy	Kansas
Kingsport Power	Tennessee
Interstate P&L	Iowa

Table 11

Missouri American Water Company, Inc.
FERC Account Descriptions

903 – Customer Records and Collection Expenses

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

905 – Miscellaneous Customer Accounts Expenses

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

MAWC's Cost per Customer

As calculated below, MAWC's customer accounts services expense per customer was \$27.89 for 2019. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by MAWC. It is necessary to adjust the Service Company's charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 0.88 calls per customer during 2019. Thus, the Service Company's expenses had to be increased, for comparison purposes, to reflect its costs if it had had 2.50 calls per customer.

Missouri American Water Company, Inc.		2019	Adjustment	
Cost Component		Service Co	Fewer	
		Charges	Calls For	Adjusted
			Water Cos. (A)	
Service Company	Call processing, order processing, credit, bill collection	\$ 5,657,827	\$ 3,348,622	\$ 9,006,449
	Customer payment processing			\$ 353,088 (B)
MAWC	Postage & forms			\$ 2,421,263
	Customer Advocacy unit			\$ 375,702
	Collection agency fees			\$ 1,185,658
	Other expenses			\$ 170,886
			Cost Pool Total	\$ 13,513,046
			Total Customers	484,517
			2019 Cost Per MAWC Customer	<u>\$ 27.89</u>
Note A: Adjustment for American Water's fewer calls per customer				
This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities				
	Call handling expenses	\$ 1,817,366		
	Electric utility industry's avg calls/customer	2.50		
	American Water's avg calls/customer	0.88		
	Percent different	184%	184%	
	Total Adjustment	\$ 3,348,622		
Note B: Estimated customer payment processing expenses				
	Number of customer bills	4,904,003		
	Bank charge per item	\$ 0.0720		
	Total estimated annual expense	\$ 353,088		

Electric Utility Group Cost per Customer

Table 12 (page 32) shows the calculation of customer accounts expense per customer for 2018 for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

Table 12

Missouri American Water Company, Inc.
Comparison Group 2018 Customer Accounts Expense Per Customer

Comparison Group	Customer Accounts Services Cost Pool				Total Customers	Customer Account Services Expenses per Customer
	Employee Benefits			Total Cost Pool		
	Account 903 and 905	Employee Pension and Benefits	Payroll Taxes			
Ameren Illinois Company	\$ 26,642,131	\$ 402,335	\$ 791,285	\$ 27,835,750	1,220,681	\$ 22.80
Ameren Missouri (Union Electric Company)	\$ 20,694,570	\$ 660,069	\$ 524,881	\$ 21,879,520	1,223,736	\$ 17.88
Commonwealth Edison Company	\$ 147,299,368	\$ 13,398,443	\$ 6,059,948	\$ 166,757,759	4,036,731	\$ 41.31
Duke Energy Kentucky, Inc.	\$ 4,196,046	\$ 205,172	\$ 164,741	\$ 4,565,959	142,393	\$ 32.07
Entergy Arkansas, Inc.	\$ 21,698,901	\$ 1,165,609	\$ 157,169	\$ 23,021,679	711,938	\$ 32.34
Interstate Power and Light Company	\$ 5,945,357	\$ 526,744	\$ 263,853	\$ 6,735,953	490,245	\$ 13.74
Kansas City Power & Light Company	\$ 17,157,851	\$ 2,682,177	\$ 644,281	\$ 20,484,309	554,933	\$ 36.91
Kansas Gas and Electric Company	\$ 6,691,671	\$ 2,672,992	\$ 386,845	\$ 9,751,507	330,082	\$ 29.54
KCP&L Greater Missouri Operations Company	\$ 9,368,551	\$ 1,880,957	\$ 383,655	\$ 11,633,163	334,176	\$ 34.81
Kentucky Power Company	\$ 5,004,514	\$ 40,382	\$ 94,675	\$ 5,139,571	166,603	\$ 30.85
Kentucky Utilities Company	\$ 20,050,146	\$ 2,143,791	\$ 790,759	\$ 22,984,696	552,923	\$ 41.57
Kingsport Power Company	\$ 1,241,189	\$ (6,956)	\$ 23,389	\$ 1,257,622	48,032	\$ 26.18
Louisville Gas and Electric Company	\$ 7,082,557	\$ 573,850	\$ 251,611	\$ 7,908,018	411,711	\$ 19.21
MidAmerican Energy Company	\$ 17,031,939	\$ 542,765	\$ 983,659	\$ 18,558,363	765,804	\$ 24.23
Oklahoma Gas and Electric Company	\$ 19,695,859	\$ 1,451,780	\$ 767,220	\$ 21,914,859	843,162	\$ 25.99
Public Service Company of Oklahoma	\$ 14,879,068	\$ 85,053	\$ 159,748	\$ 15,123,869	554,499	\$ 27.27
The Empire District Electric Company	\$ 4,092,108	\$ 1,100,275	\$ 252,877	\$ 5,445,260	173,047	\$ 31.47
Westar Energy, Inc.	\$ 7,921,692	\$ 841,890	\$ 455,044	\$ 9,218,626	382,092	\$ 24.13
Total/Average	\$ 356,693,518	\$ 30,367,326	\$ 13,155,639	\$ 400,216,483	12,942,788	\$ 30.92

Source: FERC Form 1; Baryenbruch & Company, LLC, analysis

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

Summary of Results

As shown in the table below, MAWC's cost per customer is below the 2019 average cost of the neighboring electric utility comparison group. It can be concluded that MAWC's Base Year 2019 customer accounts expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to MAWC are comparable to those of other utilities.

Customer Account Services Expenses Per Customer	
Kentucky Utilities	\$ 41.57
Commonwealth Edison	\$ 41.31
KCP&L	\$ 36.91
KCP&L Missouri	\$ 34.81
Entergy Arkansas	\$ 32.34
Duke Energy Kentucky	\$ 32.07
Empire District Electric	\$ 31.47
Comparison Group Average	\$ 30.92
Kentucky Power	\$ 30.85
Kansas G&E	\$ 29.54
MAWC	\$ 27.89
PS of Oklahoma	\$ 27.27
Kingsport Power	\$ 26.18
Oklahoma G&E	\$ 25.99
MidAmerica Energy	\$ 24.23
Westar Energy	\$ 24.13
Ameren Illinois	\$ 22.80
Louisville G&E	\$ 19.21
Ameren Missouri	\$ 17.88
Interstate P&L	\$ 13.74

VII - Question 4 – Need for Service Company Services

Analysis of Services

The final aspect of this study is an assessment of whether the services provided to MAWC by the Service Company would be necessary if MAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what services Service Company provides for MAWC. Based on discussions with Service Company personnel, the matrix in Table 13 (pages 35-37) was created showing which entity—MAWC or a Service Company location—is responsible for each of the functions MAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Table 13, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if MAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by Service Company to MAWC. For all of the services listed in Table 13, there was only one entity that was primarily responsible for the service.

Table 13
Page 1 of 3

Missouri American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

P - Primarily Responsible S - Provides Support	Performed By:					
	MAWC	American Water Service Company				
Water Company Function		Customer Call Center	Central	Central Services	IT Service Centers	Central Lab
Engineering and Construction Management						
CPS Preparation	P			S		
Five-Year System Planning	P			S		
Engineering Standards & Policies Development				P		
Project Design						
Major Projects (e.g., new treatment plant)	P			S		
Special Projects	P			S		
Minor Projects (e.g., pipelines)	P					
Construction Project Management						
Major Projects	P			S		
Special Projects	P					
Minor Projects	P					
Hydraulics Review	P					
Developers Extensions	P					
Tank Painting	P					
Water Quality and Purification						
Water Quality Standards Development	P (1)			P (1)		S
Research Studies	S			P		S
Water Quality Program Implementation	P			S		S
Water Treatment Operations & Maintenance	P			S		
Compliance Sampling	P					S
Testing/Other Sampling	P					S
Transmission and Distribution						
Preventive Maintenance Program Development	P			S		
System Maintenance	P			S		
Leak Detection	P			S		
Customer Service						
Community Relations	P					
Customer Contact	P (2)	P (2)				
Call Processing		P				
Service Order Processing	P	S				
Customer Credit		P				
Meter Reading	P				S	
Customer Bill Preparation		P			S	
Bill Collection	S	P			S	
Customer Payment Processing	S			P	S	
Meter Standards Development	S				P	
Meter Testing, Maintenance & Replacement	P					

Note 1: MAWC responsible for State regulations, Central Services responsible for Federal regulations

Note 2: MAWC provide in-person customer contact while Service Company call centers provide customer phone contact

Table 13
Page 2 of 3

Missouri American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

Water Company Function	MAWC	Performed By:				
		American Water Service Company				
		Customer Call Center	Central	Central Services	IT Service Centers	Central Lab
Financial Management						
Financial Planning				P		
Financings--Equity				P		
Financings--Long Term Debt & Preferred (Note 3)				P		
Short Term Lines of Credit Arrangements (Note 3)				P		
Investor Relations				P		
Insurance Program Administration				P		
Loss Control/Safety Program Administration				P		
Pension Fund Asset Management				P		
Cash Management/Disbursements				P		
Internal Auditing				P		
Budgeting and Variance Reporting						
Corporate Guidelines & Instructions				P		
Budget Preparation				P		
Revenue and O&M				P		
Depreciation and Interest Expense				P		
Budget Preparation--Service Company Charges		S		P	S	S
Capital Budget Preparation--Projects	S			P		
Capital Budget Preparation--Non-Project Work	S			P		
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")				P		
Prepare Capital Project Budget Status Report				P		
Year-End Projections				P		
Accounting and Taxes						
Accounts Payable Accounting				P		
Payroll Accounting				P		
Work Order Accounting				P		
Fixed Asset Accounting				P		
Journal Entry Preparations--Billing Corrections				P		
Journal Entry Preparation--All Others				P		
Financial Statement Preparation				P		
State Commission Reporting				P		
Income Taxes--State				P		
Income Taxes--Federal				P		
Property Taxes				P		
Gross Receipts (Town) Taxes				P		

Note 3: Lines of credit are the responsibility of American Water Capital Corporation ("AWCC"). AWCC is also responsible for Corporate financings which may be distributed to the regulated subsidiaries. MAWC has the ability to issue LTD.

Table 13
Page 3 of 3

Missouri American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

Water Company Function	MAWC	Performed By:				
		American Water Service Company				
		Customer Call Center	Central	Central Services	IT Service Centers	Central Lab
Rates						
Rate Studies & Tariff Change Administration	P			S		
Rate Case Planning and Preparation	P			S		
Rate Case Administration	P			S		
Commission Inquiry Response	P			S		
Legal	S			P		
Purchasing and Materials Management – National (pipe, chemicals, meters, etc.)						
Specification Development	S			P		
Bid Solicitation	S			P		
Contract Administration	S			P		
Purchasing and Materials Management – State (state supplier service agreements)						
Specification Development	P			S		
Bid Solicitation	P					
Contract Administration	P					
Ordering	P					
Inventory Management	P					
Human Resources Management						
Benefit Program Development				P		
Benefits Program Administration				P		
Management Compensation Administration				P		
Wage & Salary Program Design	S			P		
Wage & Salary Administration	S			P		
Labor Negotiations--Wages	P			S		
Labor Negotiations--Benefits	S			P		
Labor Negotiations-- Work Rules	P			S		
Training Program Development	S			P		
Training--Course Delivery	S			P		
Affirmative Action/EEO--Plan Development	S			P		
Affirmative Action/EEO--Implementation	P			S		
Information Technology Services						
Service Company Data Centers						
System Operations & Maintenance				P		
Software Maintenance				P		
Network Administration				P		
Workstation Acquisition & Support	S			P		
Help Desk				P		

VII - Question 4 – Need for Service Company Services

Governance Practices Associated with Service Company Charges

There are several ways by which MAWC exercises control over Service Company services and charges. The most important of these are described below.

1. **MAWC Company Board Oversight** – The MAWC board of directors includes the President of MAWC, the Vice President of Operations of MAWC, the Director of Government and External Affairs of MAWC, the Divisional CFO, and external business and community leaders. This diverse board ensures that MAWC’s needs are a factor in the delivery of Service Company services.
2. The MAWC Board meets at a minimum of four times each year and at every meeting financial and operational reports and issues are discussed at length.
3. **MAWC President Oversight** – The MAWC President is responsible for the overall performance of MAWC, including services and charges received from the American Water Service Company. In addition, as part of the overall management team of American Water through the President of Regulated Operations, MAWC’s President has a significant voice in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending as MAWC’s President is one of eight direct reports to the President of Regulated Operations.
4. **Divisional CFO** – The Divisional CFO and supporting Finance staff are responsible for monitoring the overall financial performance of MAWC. This includes overseeing MAWC’s financial reporting process, performing revenue and expense analysis, the annual budgeting process, and monitoring internal control performance. The Finance team performs detailed expense analysis on a monthly basis including analyzing Service Company fees. These expense analyses include monthly variance analysis as compared to budgeted results, prior year results, and YTD monthly actual results. In addition, the Finance team reviews and investigates monthly Service Company charges as necessary based on the results of the team’s analytical procedures in order to evaluate the appropriateness of the charges.
5. **Service Company Board Oversight** – The Service Company Board of Directors is comprised of 15 members. They typically meet four times a year to provide governance on the activities and bylaws of Service Company. Their primary responsibilities include:
 - Approve the Business Plan and Operating Budget
 - Review Financial Performance of the Service Company
 - Review performance metrics of certain functional groups
 - Approve policy, procedures and practices of AW as it relates to Service Company.
6. **Service Company Budget Review/Approval** – Several state regulated water utility presidents serve on the Service Company board of directors and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget that is presented to the operating company’s board of directors (e.g., MAWC).
7. **Major Project Review and Approval** – Major non-capital projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the President of Regulated Operations and his direct reports. They review and authorization all new initiatives and projects, which when approved are included in the Business Plan. All significant business-driven, information technology-enabled initiatives (capital and non-capital) are assessed by the Technology Committee, which is comprised of Director-level and above business executives representing key business process and functions across American Water. The Technology Committee seeks to define a 3-5-year

VII - Question 4 – Need for Service Company Services

information technology roadmap and works with the Executive Leadership Team [ELT] and the Corporate Director of Strategy to ensure alignment with the corporate vision, corporate strategic targets, and annual business planning updates.

8. Capital Investment Management (CIM) – CIM covers capital and asset planning and is employed throughout American Water, including the Service Company. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing capital expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
 - Capital expenditure plans are aligned with the strategic intent of the business
 - The impact of capital expenditure and income plans are fully reflected in operating expense plans
 - The impacts of these plans on state P&L's and budgets are understood
 - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment.

9. Accounting and Financial Reporting – The Service Company follows the same accounting and financial reporting processes as American Water's regulated utilities. During the month accounting transactions are recorded. At month-end, the Finance teams review all transactions. Variance analyses are performed based on month-to-month actual as well as actual to budget to ensure accuracy. Once completed, the service company bill is run and the actuals are "pushed down" and allocated to the states based on predetermined formulas. A conference call is scheduled before the operating companies close their books each month to discuss Service Company performance. This is based at a functional level with explanation reported for any expense variances that meet or exceed certain thresholds. At this time, the operating companies may question expenses and spending for better understanding of results. MAWC Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any errors or overcharges are credited on a subsequent billing.
10. MAWC Company Budget Variance Analysis – Each month a Service Company (SVC) Affiliate Billing Analysis Report is prepared and provided to the operating company. In this way, Service Company budget versus actual charges as charged to the operating company can be monitored and reviewed for the month and year-to-date.

VIII - Impact on MAWC From the Sale of New York American Water Company

In November 2019, American Water announced it would sell its New York operations (New York American Water Company or NYAWC) to Liberty Utilities, a utility business of parent company Algonquin Power & Utilities Corp. The sale is expected to be completed during the second half of 2020. When that occurs, NYAWC will no longer receive services from American Water's Service Company. The Service Company will continue to recover its costs of services from the remaining American Water operating companies. Since many of the Service Company's expenses are fixed, the remaining operating companies, including MAWC, will receive a larger portion of those expenses. It is estimated that MAWC's additional O&M charges will initially be approximately \$1.4 million.

This section analyzes the impact of MAWC's additional \$1.4 million Service Company charges on the following cost comparisons previously made in this report:

- Question 1 – Reasonableness of Service Company Charges – 2019 Service Company A&G-related charges per MAWC customer compared to the same charges per customer of other utility service companies.
- Question 2 – Provision of Services at Lower of Cost or Market – Service Company 2019 hourly costs of services compared to those of outside service providers.
- Question 3 - Reasonableness of Customer Accounts Services Costs – 2019 MAWC customer account services expenses, including charges from the Service Company for call center and other services, per MAWC customer compared to those of Missouri and neighboring utilities.

Concerning Question 1, MAWC's Service Company A&G-related charges per customer increase from \$63 to \$66, as calculated in the table below. In the "proforma" column, the \$1.4 million in additional charges are added into the cost pool for purposes of calculating Service Company A&G charges per customer. The assumption that all of the additional charges are A&G is conservative because some amount likely are related to operational services.

Analysis of Service Company Charges to MAWC	2019	
	Actual	Proforma
Total Service Company Charges	\$ 45,659,195	\$ 45,659,195
Less: Capital Charges	\$(13,385,058)	\$(13,385,058)
Less: Non-A&G Charges		
Engineering	\$ (587,838)	\$ (587,838)
Operations	\$ (910,332)	\$ (910,332)
Water Quality	\$ (130,718)	\$ (130,718)
Add: Additional Allocation (NYAWC divestiture)		\$ 1,400,000
Net Service Company A&G Charges	\$ 30,645,250	\$ 32,045,250
MAWC Customers	484,517	484,517
Service Company A&G Charges per Customer	\$ 63	\$ 66

The proforma \$66 cost per customer is still well below the study's comparison group. As shown in the table below, the Service Company's proforma A&G expenses per MAWC customer remain lower than 18 of the 24 comparison group costs.

VIII - Impact on MAWC From the Sale of New York American Water Company

Service Company A&G Charges Per Customer
MAWC (2019) versus Comparison Group (2018)

Utility Company	Actual	Utility Company	Proforma
Unitil	\$271	Unitil	\$271
Nat Grid	\$191	Nat Grid	\$191
PNM	\$188	PNM	\$188
Exelon	\$182	Exelon	\$182
Black Hills	\$161	Black Hills	\$161
Duke	\$144	Duke	\$144
Entergy	\$139	Entergy	\$139
Alliant	\$138	Alliant	\$138
Eversource	\$133	Eversource	\$133
WEC	\$116	WEC	\$116
PPL	\$113	PPL	\$113
Group Average	\$110	Group Average	\$110
Xcel	\$103	Xcel	\$103
Algonquin	\$97	Algonquin	\$97
NiSource	\$94	NiSource	\$94
AEP	\$90	AEP	\$90
AES	\$80	AES	\$80
FirstEnergy	\$78	FirstEnergy	\$78
Southern Co	\$75	Southern Co	\$75
MAWC	\$63	MAWC	\$66
Ameren	\$62	Ameren	\$62
CenterPoint	\$62	CenterPoint	\$62
SCANA	\$60	SCANA	\$60
Avangrid	\$50	Avangrid	\$50
TECO	\$46	TECO	\$46
Dominion	\$45	Dominion	\$45

Concerning Question 2, the lower of cost or market comparison, this study originally determined that the cost of services provided by the Service Company to MAWC were 58% lower than what outside service providers would charge. If all the managerial and professional services now provided by the Service Company had been outsourced during 2019, MAWC and its customers would have incurred nearly \$12.8 million in additional expenses. Even after offsetting the additional \$1.4 million in Service Company charges, the cost of Service Company services is still significantly lower than outside providers.

Concerning Question 3, this study previously determined that MAWC's 2019 customer account services cost \$25.09 per customer. If you assume the additional charges of \$1.4 million include customer account services expense in the same proportion as 2019 actual charges, then the proforma additional customer account services expenses is \$203,591, as calculated below.

	2019	
	Amount	%
Management and Professional Services	\$ 39,019,341	85%
Customer Account Services	\$ 6,639,853	15%
Total Service Company Charges	\$ 45,659,195	100%
Additional Service Company Charges	\$ 1,400,000	
Customer Account Services Percent		15%
Customer Account Services Amount	\$ 203,591	

VIII - Impact on MAWC From the Sale of New York American Water Company

These additional charges bring MAWC's proforma customer accounts services expenses per customer to \$25.51, as calculated in the table below.

	Actual 2019	Proforma 2019
Customer Accts Services Cost Pool	\$ 12,156,502	\$ 12,156,502
Add: Additional Allocation (NYAWC divestiture)		\$ 203,591
Total	\$ 12,156,502	\$ 12,360,093
Total MAWC Customers (2019)	484,517	484,517
Customer Accts Services Exp per Customer	\$ 25.09	\$ 25.51

MAWC's proforma 2019 cost of \$25.51 per customer is still well below the 2018 comparison group average for Missouri and neighboring state utilities, as shown in the table below.

Customer Account Services Expenses Per Customer			
Actual		Proforma	
Kentucky Utilities	\$ 41.57	Kentucky Utilities	\$ 41.57
Commonwealth Edison	\$ 41.31	Commonwealth Edison	\$ 41.31
KCP&L	\$ 36.91	KCP&L	\$ 36.91
KCP&L Missouri	\$ 34.81	KCP&L Missouri	\$ 34.81
Entergy Arkansas	\$ 32.34	Entergy Arkansas	\$ 32.34
Duke Energy Kentucky	\$ 32.07	Duke Energy Kentucky	\$ 32.07
Empire District Electric	\$ 31.47	Empire District Electric	\$ 31.47
Comparison Group Average	\$ 30.92	Comparison Group Average	\$ 30.92
Kentucky Power	\$ 30.85	Kentucky Power	\$ 30.85
Kansas G&E	\$ 29.54	Kansas G&E	\$ 29.54
PS of Oklahoma	\$ 27.27	PS of Oklahoma	\$ 27.27
Kingsport Power	\$ 26.18	Kingsport Power	\$ 26.18
Oklahoma G&E	\$ 25.99	Oklahoma G&E	\$ 25.99
MAWC	\$ 25.09	MAWC	\$ 25.51
MidAmerica Energy	\$ 24.23	MidAmerica Energy	\$ 24.23
Westar Energy	\$ 24.13	Westar Energy	\$ 24.13
Ameren Illinois	\$ 22.80	Ameren Illinois	\$ 22.80
Louisville G&E	\$ 19.21	Louisville G&E	\$ 19.21
Ameren Missouri	\$ 17.88	Ameren Missouri	\$ 17.88
Interstate P&L	\$ 13.74	Interstate P&L	\$ 13.74

One factor that will mitigate the future impact on MAWC from the divestiture of NYAWC is American Water's steady growth in customers through acquisitions and internal growth. The table below shows total customers grew by more than 181,000 from 2015 to 2019. This is larger than the loss of NYAWC's nearly 126,000 customers. Any future customer growth means there will a larger base over which Service Company expenses can be allocated.

American Water Customers		
Year	Total	Increase
2015	3,252,691	
2016	3,312,304	59,613
2017	3,353,877	41,573
2018	3,381,695	27,818
2019	3,434,025	52,330
2015-2019 Increase		181,334

VIII - Impact on MAWC From the Sale of New York American Water Company

Based upon the foregoing analysis, the services provided by Service Company to MAWC will continue to be a very good value for MAWC and its customers in spite of the additional charges resulting from the divestiture of NYAWC.