

Exhibit No.:
Issues: Cost of Service, Rate Design
Witness: Jessica A. York
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: MIEC
Case Nos.: WR-2017-0285
Date Testimony Prepared: February 9, 2018

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

**In the Matter of Missouri-American Water
Company for Authority to File Tariffs Reflecting
Increased Rates for Water and Sewer Service**

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) **Case No. WR-2017-0285**
)
)

Surrebuttal Testimony of

Jessica A. York

On behalf of

Missouri Industrial Energy Consumers

February 9, 2017



Project 10440

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Missouri-American Water)
Company for Authority to File Tariffs Reflecting)
Increased Rates for Water and Sewer Service)

Case No. WR-2017-0285

STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS) SS

Affidavit of Jessica A. York

Jessica A. York, being first duly sworn, on her oath states:

1. My name is Jessica A. York. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on its behalf.

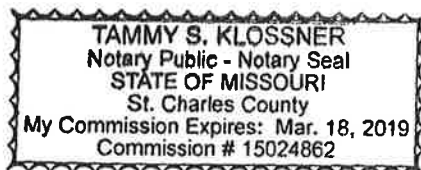
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. WR-2017-0285.


3. I hereby swear and affirm that the testimony is true and correct and that it shows the matters and things that it purports to show.



Jessica A. York

Subscribed and sworn to before me this 8th day of February, 2018.





Notary Public

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Surrebuttal Testimony of Jessica A. York

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Jessica A. York. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q ARE YOU THE SAME JESSICA A. YORK WHO PREVIOUSLY FILED TESTIMONY**
5 **IN THIS CASE?**

6 A Yes. On December 13, 2017, I filed direct testimony on behalf of the Missouri
7 Industrial Energy Consumers (“MIEC”) regarding Missouri-American Water
8 Company’s (“MAWC” or “Company”) cost of service / rate design issues.

9 **Q ON WHOSE BEHALF ARE YOU SPONSORING THIS TESTIMONY?**

10 A I am filing this surrebuttal testimony on behalf of MIEC.

11 **Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

12 A I will respond to the rebuttal testimony of MAWC witness Constance Heppenstall, as it
13 pertains to the allocation of purchased power expenses associated with Source of
14 Supply and Power and Pumping (“Pumping”) in the Company’s cost of service study.
15 Note that all references to purchased power costs throughout this testimony

**Jessica A. York
Page 1**

1 specifically refer to the purchased power costs associated with Source of Supply and
2 Pumping. The fact that I do not address a particular position or assumption of any
3 witness in this proceeding should not be construed as agreement with that position or
4 assumption.

5 **Q PLEASE SUMMARIZE YOUR RECOMMENDATION WITH RESPECT TO THE**
6 **ALLOCATION OF PURCHASED POWER EXPENSES IN THE COMPANY'S COST**
7 **OF SERVICE STUDY.**

8 A I continue to recommend the use of Factor 2 to allocate purchased power costs
9 associated with Source of Supply, and Factor 3 to allocate purchased power costs
10 associated with Pumping. For the reasons described in my direct testimony, these
11 factors reflect both average flow and maximum day demand requirements.
12 Additionally, Factor 3 includes a component to recognize the demand related to fire
13 protection. Further, as compared to the Company's use of Factor 1, these factors
14 better reflect the seasonal price differential of power, as well as the increased cost for
15 peak periods of electric usage that normally coincide with peak demands on the water
16 utility system. My main disagreement with Ms. Heppenstall's proposed allocation
17 factor is that inherent in that allocation factor is the assumption that each customer
18 class has the same load shape, and contributes equally to the monthly system peaks.
19 My testimony will demonstrate why this assumption is incorrect.

1 Q IN YOUR DIRECT TESTIMONY, DID YOU POINT TO THE VARIATION IN
2 ELECTRIC COSTS OVER THE YEAR AS A REASON TO ALLOCATE THESE
3 COSTS BASED ON BOTH AVERAGE LOAD AND PEAKING REQUIREMENTS?

4 A Yes. In my direct testimony, I examined the monthly variations in the volumes of
5 water pumped, as well as the actual volumes delivered to customers. I also
6 determined the cost of purchased power per unit of pumped water. My analysis
7 showed that the unit cost of purchased power increases when MAWC pumps larger
8 volumes of water due to higher levels of consumption by customers.

9 Further, I showed that higher levels of customer water consumption typically
10 occur in the summer months, when MAWC pays higher demand and energy rates for
11 purchased power. Since the increased consumption during the summer months is
12 due to discretionary (non-base) outdoor water use,¹ it is clear that MAWC incurs a
13 portion of purchased power costs, particularly during the summer period, to meet
14 peak demand use (non-base) requirements in excess of average (base) use. This
15 means that a portion of purchased power costs can be classified as Base costs, and
16 the remainder can be classified as Extra Capacity costs, as defined in the American
17 Water Works Association's ("AWWA") Manual M-1.² Therefore, I concluded that it is
18 appropriate and accurate to classify a portion of purchased power costs as Extra
19 Capacity, and to allocate it across rate classes based on maximum day demand.

¹Direct Testimony of Gregory P. Roach at page 8, lines 13-16, and page 9, lines 8-11.

²AWWA Manual M-1, *Principles of Water Rates, Fees and Charges*, Sixth Edition at 62.

1 **Q DOES MS. HEPPENSTALL AGREE WITH YOUR REASONING FOR ALLOCATING**
2 **PURCHASED POWER COSTS BASED ON BOTH AVERAGE LOAD AND**
3 **PEAKING REQUIREMENTS?**

4 A No. Ms. Heppenstall takes issue with the fact that I reviewed monthly variations in
5 water use rather than daily or hourly variations. She indicates that Factor 2 and
6 Factor 3 reflect variations in purchased power costs due to daily or hourly demand.
7 Based on her analysis of electric bills in the St. Louis Metro district, she concludes
8 that purchased power costs do not change significantly due to excess daily or hourly
9 demand.

10 **Q HOW DO YOU RESPOND?**

11 A Ms. Heppenstall is correct that purchased power costs vary due to fluctuations in daily
12 or hourly demand. For demand metered customers, demand charges are typically
13 determined based on the maximum demand measured over an interval of time (i.e.,
14 an hour, 30 minutes, or 15 minutes) during a month. This is true for service provided
15 to MAWC under Ameren Missouri's tariff rate schedules identified in Ms.
16 Heppenstall's Schedule CEH-3.

17 Additionally, the total amount of energy consumed over the course of one
18 month is a function of the demands measured in every interval during that month.
19 Similarly, the total amount of water pumped (and ultimately delivered to customers)
20 by MAWC over the course of a month is a function of customers' water demand in
21 each interval throughout that month.

22 Thus, calculating the monthly average cost of purchased power per unit of
23 water pumped captures the variation in purchased power costs due to fluctuations in

1 the underlying demand for both electricity and water. This analysis was contained in
 2 Table 1 of my direct testimony, and is reproduced here.

TABLE 1						
Average Purchased Power Rate for Pumping and Source of Supply (\$ per Thousand Gallons)						
<u>Month</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
January	\$ 0.12	\$ 0.13	\$ 0.14	\$ 0.11	\$ 0.14	\$ 0.15
February	0.12	0.14	0.14	0.16	0.16	0.14
March	0.12	0.13	0.14	0.14	0.12	0.13
April	0.10	0.13	0.13	0.13	0.13	0.14
May	0.11	0.12	0.13	0.13	0.12	0.12
June	0.14	0.17	0.17	0.17	0.16	0.16
July	0.21	0.20	0.19	0.22	0.19	0.20
August	0.16	0.16	0.15	0.17	0.15	0.20
September	0.16	0.19	0.22	0.19	0.20	0.18
October	0.11	0.11	0.12	0.12	0.12	0.11
November	0.10	0.15	0.13	0.13	0.12	
December	0.12	0.14	0.14	0.15	0.15	
Annual Average	\$ 0.14	\$ 0.15	\$ 0.15	\$ 0.15	\$ 0.15	\$ 0.16
Summer (Jun - Sep)	\$ 0.17	\$ 0.18	\$ 0.18	\$ 0.19	\$ 0.18	\$ 0.19
Non-Summer	\$ 0.11	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13

Sources: MAWC's responses to data requests MIEC 1-005 and MIEC 1-007.

3 **Q MS. HEPPENSTALL CLAIMS THAT PURCHASED POWER COSTS DO NOT**
 4 **CHANGE SIGNIFICANTLY DUE TO EXCESS DAILY OR HOURLY DEMAND. DO**
 5 **YOU AGREE?**

6 **A** No. As shown in Table 1 above, the unit cost of purchased power is notably higher
 7 during the summer months of June through September. The increased unit cost of
 8 purchased power during the summer months reflects water demand in excess of
 9 average (base) use, which leads to electric demand (in excess of average) for

1 pumping, during a period when MAWC pays higher tariff rates for demand and
2 energy to the utility companies that provide it with electric service. Because
3 purchased power costs do vary with variations in demand, and Factor 2 and Factor 3
4 reflect variations in purchased power costs due to demand, they are appropriate for
5 the allocation of purchased power costs in MAWC's cost of service study.

6 **Q DOES MS. HEPPENSTALL'S SCHEDULE CEH-5 CORROBORATE YOUR**
7 **FINDINGS OF SEASONAL VARIATION IN PURCHASED POWER COSTS?**

8 A Yes. Ms. Heppenstall has calculated the monthly average cost of purchased power
9 for 2016 in column (3) of her Schedule CEH-5, based on monthly sales instead of
10 volumes pumped. My analysis in Table 1 and Ms. Heppenstall's analysis in Schedule
11 CEH-5 both indicate that the difference between the average purchased power rate
12 for the summer and non-summer period is between 33% and 35%. This is shown in
13 Table 2.

TABLE 2		
Average Purchased Power Rate for Pumping and Source of Supply (\$ per Thousand Gallons)		
<u>Description</u>	<u>York Table 1</u>	<u>Schedule CEH-5</u>
January 2016	\$0.14	\$0.21
February	0.16	0.22
March	0.12	0.18
April	0.13	0.20
May	0.12	0.20
June	0.16	0.30
July	0.19	0.30
August	0.15	0.19
September	0.20	0.24
October	0.12	0.17
November	0.12	0.15
December	<u>0.15</u>	<u>0.20</u>
Annual Average	\$0.15	\$0.21
Summer (Jun - Sep)	\$0.18	\$0.25
Non-Summer	\$0.13	\$0.19
% Difference	33%	35%

1 As explained above, the seasonal purchased power cost differential is due to
2 multiple factors. Water demand in excess of base use that occurs during the summer
3 months leads to increased electric demand (in excess of base use) for pumping. The
4 increased electric demand for pumping coincides with a period when MAWC pays
5 higher demand and energy rates for purchased power under electric tariffs with
6 seasonally differentiated pricing. As shown in Table 2 above, in 2016 the average
7 purchased power rate during the period from June through September was notably
8 higher than in the remaining months.

1 **Q WHY IS IT INAPPROPRIATE AND INACCURATE TO ALLOCATE PURCHASED**
2 **POWER EXPENSES FOR SOURCE OF SUPPLY AND PUMPING ON FACTOR 1?**

3 A Purchased power costs for Source of Supply and Pumping are incurred to meet both
4 average load and peaking requirements, and therefore should be split between the
5 Base and Extra Capacity cost components in MAWC's cost of service study. The
6 Base component of purchased power costs should be allocated on a volumetric basis
7 and the Extra Capacity component should be allocated on maximum day demand.
8 Factor 1 inappropriately classifies all purchased power costs as Base costs, and
9 allocates them on the basis of annual water consumption, or average daily use.

10 Additionally, the use of Factor 1 inherently assumes that all customer classes
11 have the same load shape, instead of recognizing that certain classes provide greater
12 contributions to MAWC's monthly system peaks than other classes. The classes that
13 drive the monthly peak water demands, particularly during the summer months, are
14 ultimately the classes that drive the electric demand for pumping, as well as the
15 resulting purchased power costs. Because Factor 1 does not include a
16 demand-related component, it does not accurately allocate the purchased power
17 costs to the customers who created the demands that caused the costs to be
18 incurred.

19 **Q HAVE YOU PREPARED AN EXAMPLE ILLUSTRATING THE VARIATION IN**
20 **LOADS BY CUSTOMER CLASS?**

21 A Yes. As an example, I have compared each customer class's actual monthly usage
22 for the 2016 base year to its average monthly usage based on data provided in
23 MAWC's response to Data Request MIEC 1-009. The resulting monthly ratios have
24 been plotted in Figure 1.

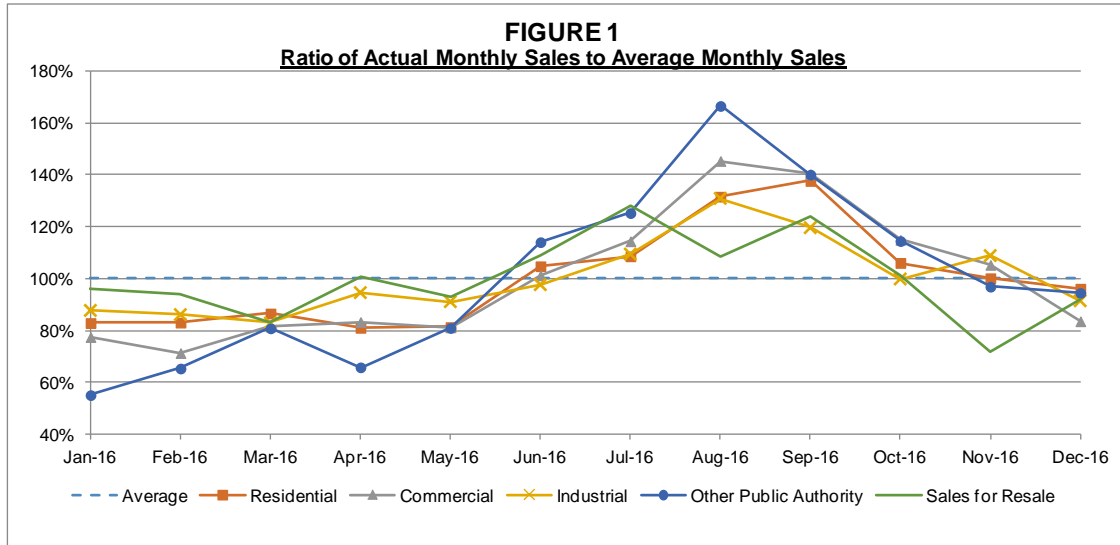


TABLE 3
Maximum and Minimum Ratios of
Actual Monthly Sales to Average Monthly Sales in 2016

<u>Description</u>	<u>Res.</u>	<u>Comm.</u>	<u>Ind.</u>	<u>OPA</u>	<u>SFR</u>
Max.	138%	145%	131%	166%	128%
Min.	<u>81%</u>	<u>71%</u>	<u>83%</u>	<u>55%</u>	<u>72%</u>
Difference	57%	74%	48%	111%	56%

1 The maximum and minimum ratios for each rate class are listed in Table 3.

2 The difference between the two ratios provides some insight into the magnitude of the

3 variation from average use experienced by each rate class. For example, the

4 difference between the maximum and minimum ratios for the Industrial class is the

5 smallest of all classes. This means that the Industrial class's monthly usage

6 throughout the year is more stable, or flat, than the other rate classes. Additionally,

7 all classes experience their peak usage during the summer months. However, the

8 magnitude of the Industrial class's peak usage relative to average use is much

9 smaller than the other rate classes.

1 **Q WHAT CONCLUSIONS CAN BE DRAWN FROM FIGURE 1?**

2 A In general, all rate classes experience their peak usage during the summer.
3 However, some classes, including Residential, Commercial and Other Public
4 Authority, have a much more drastic peak than the Industrial class. Thus, during the
5 summer period, the non-industrial classes are providing a greater contribution to peak
6 water demand in excess of average use than is the Industrial class. This means that
7 the non-industrial classes are also driving the excess electric demand for pumping
8 during the summer months when electric costs are the highest. Therefore, they
9 should be allocated a larger portion of the associated purchased power costs.
10 Factor 1 ignores the load characteristics that are specific to each rate class, and
11 instead treats all customers as though they contribute equally to purchased power
12 costs. Therefore, Factor 1 unfairly over-allocates purchased power costs for Source
13 of Supply and Pumping to large volume water users.

14 **Q IS RATE J'S LOAD SHAPE SIMILAR TO THE INDUSTRIAL CLASS?**

15 A Yes. Rate J consists of Commercial, Industrial and Other Public Authority customers.
16 However, nearly 90% of Rate J usage is Industrial.³ Analyzing the normalized Rate J
17 monthly volumes using the same method as in Figure 1 results in a difference of 49%
18 between the maximum and minimum ratios of actual monthly use to average monthly
19 use. This means that the Rate J class's load shape is more flat than the non-
20 industrial rate classes, and therefore Rate J does not make as large of a contribution
21 to the peak demands that drive purchased power costs. Thus, Factor 1 over-
22 allocates purchased power costs for Source of Supply and Pumping to Rate J.

³MAWC's 2016 Rate J Normalization Workpaper.

1 Q DOES MAWC'S COST OF SERVICE STUDY FOR DISTRICT 1 ILLUSTRATE THE
2 RELATIONSHIP BETWEEN MAX DAY, MAX HOUR, AND AVERAGE USAGES
3 FOR ITS CLASSES?

4 A Yes. Table 4, below, shows the maximum day to average day ratios as well as the
5 maximum hour to average hour ratios used for classes in District 1 in the cost of
6 service study.

<u>Description</u>	<u>Maximum Day*</u>	<u>Maximum Hour**</u>
Residential	1.3	3.0
Non-Residential	1.0	3.0
Rate J	0.4	1.0
Sales for Resale	0.7	0.0

Source: MAWC's response to Data Request MIEC 2-002.
*Ratio of maximum day to average day minus 1.0.
**Ratio of maximum hour to average hour minus 1.0.

7 In general, higher ratios indicate "peakier" load.

8 As shown in Table 4, Rate J has the lowest ratios of all classes. Thus, it
9 provides a smaller contribution to monthly system peak demands than the other
10 classes, and should be allocated a smaller portion of purchased power costs.

1 Q HAS MS. HEPPENSTALL PROVIDED AN ANALYSIS IDENTIFYING THE
2 PORTION OF PURCHASED POWER COSTS THAT SHE BELIEVES SHOULD BE
3 CLASSIFIED AS EXTRA CAPACITY?

4 A Yes. Ms. Heppenstall reviewed a sample of power bills for the St. Louis Metro area.
5 As shown on her Schedule CEH-3, Ms. Heppenstall has identified the total billed
6 demand charges and the portion of total demand charges that she considers as
7 minimum demand charges. The difference between the two values has been
8 deemed excess demand charges. Then, she calculated the ratio of the excess
9 demand charges to the total purchased power cost. Based on this analysis, she
10 concluded that she would support allocating 5.5% of purchased power costs to the
11 Extra Capacity function. She notes that this revision to her cost study would reduce
12 the Rate J cost of service by \$24,017, or 0.14%.

13 Q WHAT SUPPORT DOES MS. HEPPENSTALL PROVIDE FOR THIS TYPE OF
14 ANALYSIS?

15 A Ms. Heppenstall tries to support this method of determining the appropriate portion of
16 purchased power costs to assign to the Extra Capacity function based on the AWWA
17 Manual M-1. She notes that Manual M-1 indicates that the demand portion of power
18 costs should be allocated to extra capacity to the degree that it varies with the
19 demand pumping requirements.⁴

⁴Rebuttal testimony of Constance E. Heppenstall at page 5, lines 16-20.

1 Q DO YOU AGREE WITH MS. HEPPENSTALL'S ANALYSIS AND HER
2 JUSTIFICATION BASED ON THE AWWA MANUAL M-1?

3 A No. I believe that Ms. Heppenstall's analysis is incomplete and that she has omitted
4 a key point from the explanation provided by the AWWA Manual M-1 regarding the
5 amount of purchased power costs to assign to the Extra Capacity component.

6 Q WHAT GUIDANCE DOES THE AWWA MANUAL M-1 PROVIDE WITH RESPECT
7 TO DETERMINING THE AMOUNT OF PURCHASED POWER COSTS TO ASSIGN
8 TO THE EXTRA CAPACITY COST COMPONENT?

9 A The AWWA Manual M-1 states that, "The extent to which power costs are allocated to
10 the extra-capacity cost component depends on the variations in electric demands
11 incurred in pumping and the energy/demand electric rate structure that applies to
12 pumping"⁵ (Emphasis added). The underlined portion of the above statement was
13 conveniently excluded from Ms. Heppenstall's testimony.

14 Q WHY DO YOU BELIEVE THAT MS. HEPPENSTALL'S ANALYSIS IN HER
15 SCHEDULE CEH-3 IS INCOMPLETE?

16 A Ms. Heppenstall's analysis does not fully consider the electric utility's energy/demand
17 electric rate structure that applies to pumping. In Schedule CEH-3, Ms. Heppenstall
18 has analyzed a sample of MAWC's power bills for the St. Louis Metro area. Ameren
19 Missouri is the electric utility associated with the sample bills.⁶ In particular,
20 Schedule CEH-3 shows that the sample bills (purchased power costs to MAWC) are

⁵AWWA Manual M-1, *Principles of Water Rates, Fees and Charges, Sixth Edition* at 65.

⁶MAWC's response to Data Request MIEC 7-002.

1 associated with Ameren Missouri's Large Primary Service Rate (11M), Small Primary
2 Service Rate (4M), and Large General Service Rate (3M).

3 Ms. Heppenstall's analysis and attempted justification based on the AWWA
4 Manual M-1 fails to recognize the fact that Ameren Missouri does not use a Straight
5 Fixed-Variable ("SFV") rate design.

6 **Q PLEASE BRIEFLY DESCRIBE THE SFV ELECTRIC RATE DESIGN.**

7 A Utilities incur both fixed and variable costs to provide service to customers. For
8 electric utilities, fixed costs are those which are incurred in order to be able to provide
9 service, regardless of how much electric energy is actually used by customers.
10 Variable costs are those such as fuel and purchased power, which vary with the
11 amount of energy consumed by customers. Electric utilities, including Ameren
12 Missouri, recover these fixed and variable charges through a combination of flat
13 monthly customer charges, demand charges and energy charges.

14 Under a SFV rate design, a utility would recover its customer-related costs
15 strictly through its monthly customer charge, and capacity-related costs strictly
16 through its demand charge. Variable, or energy-related costs, would be the only
17 costs collected through the energy charge.

18 **Q WHAT IS THE SIGNIFICANCE OF THE SFV RATE DESIGN.**

19 A In an attempt to minimize the monthly customer charges and demand charges that
20 customers pay, utilities frequently recover a portion of their fixed capacity costs
21 through volumetric charges. In the case of Ameren Missouri, some capacity-related
22 costs are recovered through the energy charges. Therefore, Ms. Heppenstall's
23 analysis does not take into consideration all of the capacity-related costs Ameren

1 Missouri bills to MAWC via demand and energy charges to meet variations in
2 pumping requirements. If Ms. Heppenstall would have captured the capacity-related
3 costs that Ameren Missouri recovers through energy charges, then the level of
4 excess demand charges shown on her Schedule CEH-3 would be greater, resulting
5 in a higher percentage of excess demand charges relative to total purchased power
6 costs.

7 **Q WHAT EVIDENCE DO YOU HAVE THAT AMEREN MISSOURI RECOVERS SOME**
8 **CAPACITY-RELATED COSTS THROUGH ITS ENERGY RATES?**

9 A I have examined Ameren Missouri's cost of service study provided in its last base
10 rate proceeding, Case No. ER-2016-0179. The cost of service study shows that for
11 the Rate 11M class, 64% of its cost of service consists of fixed costs and the
12 remainder is variable costs.⁷ However, Ms. Heppenstall's analysis on Schedule
13 CEH-3 shows that of the total Rate 11M purchased power costs incurred by MAWC,
14 only 32% are recovered through demand charges. Similarly, for the combined Rate
15 3M/4M class, 69% of Ameren Missouri's cost of service is comprised of fixed costs.⁸
16 But only 6% of the purchased power costs incurred by MAWC under those rate
17 schedules are recovered through Ameren Missouri's demand charges.

18 There is a significant difference between the fixed costs allocated by Ameren
19 Missouri's cost of service study to the rates under which MAWC takes service, and
20 the fixed costs actually recovered from MAWC through the demand charges in those
21 rates. Because Ameren Missouri is not recovering all of its capacity-related costs
22 through demand charges, its rate structure is clearly not SFV. Therefore, a

⁷Ameren Missouri's cost of service study provided in the Direct Testimony Workpapers of William R. Davis, Case No. ER-2016-0179.

⁸*Id.*

1 substantial amount of capacity costs must be recovered through Ameren Missouri's
2 energy charges.

3 **Q HOW ARE CAPACITY COSTS RECOVERED FROM CUSTOMERS THAT DO NOT**
4 **PAY DEMAND CHARGES?**

5 A Some electric utility rate schedules do not contain any demand charges, and instead
6 only have a customer charge and energy charge. To the extent that MAWC has any
7 accounts with Ameren Missouri, or other electric utilities, under tariffs that do not have
8 demand charges, all capacity costs would be recovered through the energy charge.
9 Ms. Heppenstall's analysis does not reflect purchased power costs incurred under
10 any electric tariffs that do not have a demand charge.

11 **Q DOES MAWC RECOVER SOME OF ITS CAPACITY-RELATED COSTS THROUGH**
12 **ITS COMMODITY CHARGE?**

13 A Yes, it does. Like Ameren Missouri, MAWC recovers a substantial portion of fixed
14 capacity costs through its commodity charge. As noted in the direct testimony of
15 MAWC witness James M. Jenkins, 91.4% of MAWC's costs of providing water service
16 are fixed costs, but only 24.3% of its revenues are collected through fixed charges.⁹
17 This is due to the fact that the Company's own rate structure is primarily volumetric.
18 Therefore, MAWC relies very heavily on variable (or volumetric) revenues for
19 collecting fixed costs.¹⁰ Since MAWC's rate structure is largely based on volumetric
20 charges, the Company recovers both Base and Extra Capacity costs through its
21 commodity charges.

⁹Direct Testimony of James M. Jenkins at page 19, lines 1-6.

¹⁰*Id.*

1 **Q PLEASE SUMMARIZE YOUR CONCLUSIONS WITH RESPECT TO MS.**
2 **HEPPENSTALL'S ANALYSIS ON SCHEDULE CEH-3.**

3 A Ms. Heppenstall's analysis provides an incomplete picture of the total
4 capacity-related charges it pays to Ameren Missouri through its electric rates. Her
5 analysis does not recognize the amount of capacity costs that Ameren Missouri
6 collects through its energy charges. It also does not take into account the purchased
7 power costs paid to the other utilities that provide service to MAWC for its water
8 operations, or their underlying rate structures applicable to pumping. Therefore, Ms.
9 Heppenstall has understated the amount of purchased power costs that should be
10 classified as Extra Capacity and allocated on the basis of maximum day demand.

11 **Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS WITH**
12 **RESPECT TO THE ALLOCATION OF PURCHASED POWER COSTS IN MAWC'S**
13 **COST OF SERVICE STUDY.**

14 A During the summer months of June through September, MAWC experiences
15 increased consumption due to discretionary (non-base) outdoor water use. This
16 means that MAWC incurs a portion of purchased power costs, particularly during the
17 summer, to meet peak demand rate of use (non-base) requirements in excess of
18 average (base) use. Thus, a portion of purchased power costs should be classified
19 as Base costs, and the remainder should be classified as Extra Capacity costs as
20 described in the AWWA's Manual M-1.

21 Additionally, non-industrial customers provide a greater contribution than
22 Industrial customers to MAWC's peak demand requirements during the summer.
23 This coincides with a period when MAWC pays higher demand and energy rates for
24 purchased power. Therefore, non-industrial classes should receive a greater

1 allocation of purchased power costs than the Industrial class. Since Rate J is
2 primarily Industrial, it should receive a smaller allocation of purchased power costs
3 than it does based on Factor 1.

4 Purchased power costs associated with Source of Supply and purchased
5 power costs associated with Pumping should be allocated across rate classes using
6 Factor 2 and Factor 3, respectively. These allocation factors recognize that
7 purchased power costs should be classified as both Base and Extra Capacity related,
8 that purchased power costs vary with demand, and that customer classes do not
9 contribute equally to MAWC's monthly system peaks. Additionally, these factors are
10 consistent with the allocation of other Source of Supply and Pumping expenses, as
11 well as the associated rate base items.

12 **Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

13 **A Yes.**

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