

# Exhibit No. 351

Issue: Class Cost of Service/Rate Design  
Witness: Jessica A. York  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Parties: Missouri Industrial Energy Consumers  
Case Nos.: WR-2022-0303 & SR-2022-0304  
Date Testimony Prepared: January 25, 2023

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

\_\_\_\_\_)  
In the Matter of Missouri-American )  
Water Company's Request for Authority )  
to Implement General Rate Increase for )  
Water and Sewer Service Provided in )  
Missouri Service Areas. )  
\_\_\_\_\_)

**Case Nos. WR-2022-0303/  
SR-2022-0304**

Rebuttal Testimony and Schedules of

**Jessica A. York**

On behalf of

**Missouri Industrial Energy Consumers**

January 25, 2023





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

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|--|---|-------------------------|
| <hr/>                                  |   |                         |
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**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

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|--|---|-------------------------|
| In the Matter of Missouri-American     | ) |                         |
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| Missouri Service Areas.                | ) |                         |
|  | ) |                         |

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**Rebuttal Testimony of Jessica A. York**

1    **Introduction**

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

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

5    **Q      ARE YOU THE SAME JESSICA A. YORK WHO PRESENTED DIRECT TESTIMONY  
6            IN THIS PROCEEDING ON DECEMBER 16, 2022?**

7    A      Yes, I am.

8    **Q      ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

9    A      I am appearing on behalf of Missouri Industrial Energy Consumers ("MIEC"), a  
10          non-profit corporation that represents the interests of large customers in Missouri utility  
11          matters. The MIEC represents the interests of companies purchasing substantial  
12          amounts of water from Missouri-American Water Company ("MAWC" or "Company").

1 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A I will address the class cost of service studies (“COSS”) provided by the Missouri Public  
3 Service Commission Staff (“Staff”) witness Keri Roth. I will also provide some updates  
4 to positions taken in my direct testimony, based on discovery responses recently  
5 provided by MAWC.

6 My silence on any issues addressed by the Staff’s testimony should not be  
7 taken as tacit approval or agreement regarding those issues.

8 **Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.**

9 A My conclusion is that Staff’s COSS models for both St. Louis County and non-St. Louis  
10 County customers are flawed, inaccurate, and should be rejected. They should not be  
11 relied upon as the basis for revenue apportionment or rate design in this proceeding.

## 12 **Staff’s COSS Models**

13 **Q HAVE YOU REVIEWED THE COSS PROVIDED BY STAFF WITNESS ROTH?**

14 A Yes. I have reviewed Ms. Roth’s testimony and COSS workpapers. Ms. Roth supports  
15 the Base-Extra Capacity method for functionalizing, classifying and allocating costs to  
16 MAWC’s various customer classes. In addition, Staff relies on a more detailed model  
17 than the Company, similar to the COSS models that were filed by the Company in rate  
18 cases prior to Case No. WR-2020-0344. Staff’s COSS shows the additional step of  
19 classifying costs into the cost categories that reflect the causation of these costs: Base,  
20 or average day rates of flow; Extra Capacity – Maximum Day and Extra Capacity –  
21 Maximum Hour rates of flow; and Customer-related costs such as metering and billing.  
22 As noted in my direct testimony, this step of the COSS process is not shown in the  
23 Company’s model.

1 **Q IS STAFF’S COSS REASONABLE?**

2 A No. The Base-Extra Capacity method is reasonable. However, there is at least one  
3 major error in Staff’s COSS models. In addition, Staff has used certain data points in  
4 the model which have not been explained or supported. As a result, Staff’s COSS does  
5 not produce an accurate measure of the cost of providing service to each customer  
6 class, and should not be used as the basis of revenue apportionment or rate design in  
7 this proceeding.

8 **Q PLEASE DISCUSS THE MAJOR ERROR YOU HAVE IDENTIFIED IN STAFF’S**  
9 **COSS MODELS.**

10 A Ms. Roth testified that Staff proposes to continue a main adjustment for sale for resale  
11 and certain large industrial customers in all of MAWC’s service areas, which is similar  
12 to what the Commission ordered in previous rate cases.<sup>1</sup> Ms. Roth noted that Staff’s  
13 continuing position is that it is appropriate to make a main adjustment for certain large  
14 industrial customers and the sale for resale class, because they are connected directly  
15 to the transmission system and do not receive any benefit from the smaller distribution  
16 mains.<sup>2</sup> Further, in Staff’s COSS workpapers associated with the development of  
17 Factor 4 (which includes base and maximum hour components for the allocation of  
18 distribution mains), there is a note that states, “Industrial average hourly consumption  
19 adjusted down 90% and Sales for Resale adjusted to zero.”<sup>3</sup> However, this usage  
20 adjustment has not actually been made anywhere in the model. As a result, Staff’s  
21 COSS models over-allocate distribution costs to large industrial and sale for resale  
22 customers that are primarily served from the transmission mains.

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<sup>1</sup>Direct testimony of Keri Roth at 8.

<sup>2</sup>*Ibid.*

<sup>3</sup>Attached as Schedule JAY-4.

1 Q WHAT ARE THE RESULTS OF STAFF'S COSS MODELS IF THIS ERROR IS  
2 CORRECTED?

3 A A comparison of Staff's COSS results as filed, and the results after applying Staff's  
4 proposed distribution multipliers (90% Industrial, 0% Sales for Resale) is presented  
5 below in Table 1. Note, these results presume that all of the other formulas in Staff's  
6 COSS spreadsheets are correct, and that the impact of applying the distribution  
7 multipliers supported by Staff accurately flows through the models.

**TABLE 1**  
**Staff's COSS Results As Filed vs. Staff COSS with Corrected Distribution Multipliers**

| Line                    | Description            | Current<br>Rate<br>Revenues <sup>1</sup><br>(1) | Staff - As Filed  |   |                | Corrected   |   |                |
|-------------------------|------------------------|---|---|---|----------------|---|---|----------------|
|                         |                        |   | Increase / (Decrease)<br>to Reach COS <sup>1</sup><br>Amount<br>(2) | Index vs.<br>District<br>Percent<br>(3) | Average<br>(4) | Increase / (Decrease)<br>to Reach COS <sup>2</sup><br>Amount<br>(5) | Index vs.<br>District<br>Percent<br>(6) | Average<br>(7) |
| <b>St. Louis County</b> |                        |   |   |   |                |   |   |                |
| 1                       | Residential            | \$ 175,102,487                                  | \$ 21,010,878   | 12.0%                                   | 0.71           | \$ 34,587,404   | 19.8%                                   | 1.17           |
| 2                       | Commercial             | 45,597,239                                      | (3,094,284)   | -6.8%                                   | (0.40)         | (176,236)   | -0.4%                                   | (0.02)         |
| 3                       | Industrial             | 4,886,354                                       | 5,065,169   | 103.7%                                  | 6.14           | 975,020   | 20.0%                                   | 1.18           |
| 4                       | Other Public Authority | 3,240,867                                       | 345,182   | 10.7%                                   | 0.63           | 596,707   | 18.4%                                   | 1.09           |
| 5                       | Sales for Resale       | 8,055,469                                       | 13,562,493  | 168.4%                                  | 9.97           | 1,096,759   | 13.6%                                   | 0.81           |
| 6                       | Private Fire           | <u>3,759,867</u>                                | <u>3,734,027</u>  | 99.3%                                   | 5.88           | <u>3,543,812</u>  | 94.3%                                   | 5.58           |
| 7                       | Total                  | \$ 240,642,283                                  | \$ 40,623,466   | 16.9%                                   | 1.00           | \$ 40,623,466   | 16.9%                                   | 1.00           |
| <b>Other Missouri</b>   |                        |   |   |   |                |   |   |                |
| 8                       | Residential            | \$ 54,876,626                                   | \$ 6,458,551  | 11.8%                                   | 0.79           | \$ 11,896,343   | 21.7%                                   | 1.45           |
| 9                       | Commercial             | 17,934,442                                      | (1,176,893)   | -6.6%                                   | (0.44)         | 650,635   | 3.6%                                    | 0.24           |
| 10                      | Industrial             | 9,496,157                                       | 4,679,872   | 49.3%                                   | 3.30           | 207,766   | 2.2%                                    | 0.15           |
| 11                      | Other Public Authority | 3,938,759                                       | (77,764)  | -2.0%                                   | (0.13)         | 357,427   | 9.1%                                    | 0.61           |
| 12                      | Sales for Resale       | 3,626,612                                       | 3,433,180   | 94.7%                                   | 6.34           | 313,575   | 8.6%                                    | 0.58           |
| 13                      | Private Fire           | <u>1,434,399</u>                                | <u>321,056</u>  | 22.4%                                   | 1.50           | <u>212,255</u>  | 14.8%                                   | 0.99           |
| 14                      | Total                  | \$ 91,306,995                                   | \$ 13,638,001   | 14.9%                                   | 1.00           | \$ 13,638,001   | 14.9%                                   | 1.00           |

**Sources and Notes:**

<sup>1</sup> St. Louis County data is from Staff's CCOS Schedule 5, page 1.  
Other Missouri data is from Staff's CCOS Schedule 5, page 2.

<sup>2</sup> Reduces industrial usage by 90% and Sales for Resale usage by 100% in the development of the maximum hour allocation factor (Factor 4).

8 As shown in the table, this single correction has a significant impact on the COSS  
9 results for the Industrial and Sales for Resale classes. Under Staff's model as filed,  
10 the St. Louis County Industrial class would require an increase in excess of 103% to



1 reach cost of service, or 6.14x the district average. Correcting the allocation of  
2 distribution costs produces an increase of 20% for the St. Louis County Industrial class.

3 Similarly, Sales for Resale customers in St. Louis County would require an  
4 increase of 168.4%, nearly 10x the district average, to reach cost of service under  
5 Staff's COSS. Correcting the allocation of distribution costs produces an increase of  
6 13.6% for the Sales for Resale class in St. Louis County.

7 The results show a similar, significant impact for Industrial and Sales for Resale  
8 customers outside of St. Louis County.

9 **Q DO YOU AGREE WITH STAFF'S PROPOSED DISTRIBUTION MULTIPLIER OF**  
10 **10% FOR INDUSTRIAL (RATE J) CUSTOMERS?**

11 A No. As explained in my direct testimony, the 10% distribution multiplier was developed  
12 by MAWC witness Paul Herbert in Case No. WR-2008-0311. It was effectively an  
13 arbitrary number, as Mr. Herbert's testimony did not explain how he arrived at 10%,  
14 after arriving at the conclusion that industrial customers in St. Louis County only used  
15 1.3% of the total distribution main installed on the system.<sup>4</sup> Ms. Roth has provided no  
16 explanation of how or why she determined that a 10% distribution multiplier is  
17 appropriate for industrial customers inside or outside of St. Louis County.

18 **Q DO YOU BELIEVE THIS IS THE ONLY ADJUSTMENT THAT NEEDS TO BE MADE**  
19 **TO THE STAFF'S COSS?**

20 A No. I believe there are other factors that should be addressed.

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<sup>4</sup>Direct testimony of Jessica York at 13-14.

1 **Q WHAT OTHER FACTORS HAS STAFF USED THAT HAVE NOT BEEN**  
2 **SUPPORTED?**

3 A Staff appears to have relied on maximum day and maximum hour demand ratios by  
4 customer class from the prior rate case, Case No. WR-2020-0344.<sup>5</sup> However, Staff  
5 has not provided any information to show that these ratios are still representative of the  
6 load characteristics of each class, particularly in light of the fact that MAWC has  
7 acquired additional water systems since the last rate case.<sup>6</sup> These factors are  
8 important, as they influence the allocation of extra-capacity demand-related costs in  
9 the COSS models.

10 **Q HAS STAFF INCLUDED CONTRACT CUSTOMERS IN THE COSS MODELS?**

11 A No. Unlike MAWC's COSS models, it does not appear that Staff has included a  
12 contract class in its COSS models.

13 **Q DO YOU HAVE ANY OTHER COMMENTS ON STAFF'S COSS MODELS AT THIS**  
14 **TIME?**

15 A Yes. During the Rate Design Technical Conference that occurred on December 22,  
16 2022, it was brought to the attention of all parties that MAWC issued some informal  
17 questions to Staff about their COSS models.<sup>7</sup> Specifically, Staff was asked for  
18 clarification on the following issues:

- 19 • A discrepancy between annual water consumption for the Commercial group  
20 between the COSS model and Staff's EMS run for St. Louis County.

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<sup>5</sup>Maximum day and maximum hour ratios used by Ms. Roth in this case match the maximum day and maximum hour ratios from WR-2020-0344, CCOS Schedule 7, page 6 of 10 (St. Louis County), and WR-2020-0344, CCOS Schedule 7, Page 1 of 10 (non-St. Louis County).

<sup>6</sup>Direct testimony of Mr. Svindland at 23-24.

<sup>7</sup>The questions are attached as Schedule JAY-5.

- 1           • An explanation of how the customer class maximum day and maximum hour  
2           demand ratios were developed for use in the COSS.
- 3           • The source of the average day rate of flow used to develop Factor 3.
- 4           • The source of the horsepower of pumps used to develop Factors 6 and 7.
- 5           • Where in the COSS model Staff's proposed distribution multiplier was applied.
- 6           During the meeting, Staff did not provide answers to these questions. To the extent  
7           that Staff files modified COSS models in its rebuttal testimony addressing these  
8           questions, MIEC will respond in surrebuttal testimony.

9           **Additional Information Related to MAWC's COSS Models**

10          **Q        IN YOUR DIRECT TESTIMONY, YOU RAISED A QUESTION AS TO WHETHER AND**  
11               **WHAT EXTENT MAWC HAS BENCHMARKED THE ACCURACY OF ITS NEW**  
12               **COSS MODEL STRUCTURE WITH THE COSS MODEL STRUCTURE USED PRIOR**  
13               **TO CASE NO. WR-2020-0344. HAVE YOU RECEIVED ADDITIONAL**  
14               **INFORMATION ABOUT THIS QUESTION SINCE YOUR DIRECT TESTIMONY WAS**  
15               **FILED?**

16          A        Yes. I raised concerns in my direct testimony about whether or not MAWC has  
17                benchmarked the results of its new, simplified COSS model against the more detailed  
18                model used in rate cases prior to Case No. WR-2020-0344. The Company confirmed  
19                in a discovery response that it has not compared the results of its class COSS model  
20                with the results of the model/format used in Case No. WR-2017-0285.<sup>8</sup>

21          **Q        ARE YOU OPPOSED TO A NEW SIMPLIFIED MODEL AS PROPOSED BY MAWC?**

22          A        No, so long as the results from that model produce just and reasonable results.

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<sup>8</sup>MAWC's response to Discovery Request MIEC 4-02, attached as Schedule JAY-6, page 1.

1 Q WOULD YOU EXPECT THE COMPANY'S NEW, SIMPLIFIED MODEL TO  
2 PRODUCE SIMILAR RESULTS TO THE PRIOR, MORE DETAILED MODEL?

3 A If MAWC's cost of service has been assigned to the various functional cost categories  
4 of Source of Supply, Pumping, Water Treatment, Transmission, Distribution, Storage,  
5 Meters, Services, Customers, and Hydrants in a manner consistent with its more  
6 detailed, prior approach, then I would expect the new model to produce results that are  
7 very similar to the results of the prior model. However, as explained in my direct  
8 testimony, I do not believe that MAWC's separation of costs between the transmission  
9 and distribution functions in its simplified COSS model is accurate. Specifically, I  
10 showed that the Company had incorrectly assigned certain distribution costs to the  
11 transmission function.<sup>9</sup>

12 Q HAS MAWC PROVIDED ADDITIONAL INFORMATION PERTAINING TO THE  
13 FUNCTIONALIZATION OF COSTS BETWEEN THE TRANSMISSION AND  
14 DISTRIBUTION COST CATEGORIES?

15 A Yes. MIEC asked MAWC to breakout the COSS line item of investment in transmission  
16 and distribution mains sized 10-inches to 16-inches by main size (i.e., Schedule  
17 WES-1, Account Detail tab, page 7, line labeled "TD Mains 10 inches to 16 inches.")<sup>10</sup>  
18 A similar question was issued with respect to the depreciation expense for this category  
19 of mains.<sup>11</sup> The same information was sought for the non-St. Louis County district as  
20 well.<sup>12</sup>

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<sup>9</sup>Direct testimony of Jessica York at 15-18.

<sup>10</sup>MAWC's response to Discovery Request MIEC 5-05, attached as Schedule JAY-6, page 2.

<sup>11</sup>MAWC's response to Discovery Request MIEC 5-06, attached as Schedule JAY-6, page 3.

<sup>12</sup>MAWC's response to Discovery Requests MIEC 5-07 and 5-08, attached as Schedule JAY-6, pages 4-5.

1 MAWC's response to these questions indicated that while completing the  
2 response to MIEC's discovery requests, the Company became aware that certain  
3 assets were not placed in the appropriate plant sub-accounts, making the percentages  
4 used to allocate mains between transmission and distribution inaccurate, and that the  
5 Company intends to file a limited update of its COSS models in rebuttal to reflect this  
6 change.<sup>13</sup> MIEC will review these updates to MAWC's COSS models and address  
7 them in surrebuttal testimony, if needed.

8 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

9 **A** Yes, it does.

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<sup>13</sup>MAWC's response to Discovery Request MIEC 5-05, attached as Schedule JAY-6, page 2.

**STAFF'S COSS WORKPAPER - ST. LOUIS COUNTY**

**FACTOR 3.**

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE, MAX DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.**

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer Classification | Average Daily Consumption |                 | Maximum Day Extra Capacity |                 | Fire Protection   |                 | Allocation Factor |
|-------------------------|---------------------------|-----------------|----------------------------|-----------------|-------------------|-----------------|-------------------|
|                         | Allocation Factor         | Weighted Factor | Allocation Factor          | Weighted Factor | Allocation Factor | Weighted Factor |                   |
| (1)                     | (2)                       | (3)=(2) X       | (4)                        | (5)=(4) X       | (6)               | (7)=(6) X       | (8)=(3)+(5)+(7)   |
|                         |                           | 0.5734          |                            | 0.3613          |                   | 0.0653          |                   |
| Residential             | 0.6380                    | 0.3659          | 0.7033                     | 0.2541          |                   |                 | 0.6199            |
| Commercial              | 0.1745                    | 0.1001          | 0.1443                     | 0.0521          |                   |                 | 0.1522            |
| Industrial              | 0.0673                    | 0.0386          | 0.0371                     | 0.0134          |                   |                 | 0.0520            |
| Other Public Authority  | 0.0150                    | 0.0086          | 0.0124                     | 0.0045          |                   |                 | 0.0131            |
| Sales for Resale        | 0.1038                    | 0.0595          | 0.1029                     | 0.0372          |                   |                 | 0.0967            |
| Private Fire Protection | 0.0014                    | 0.0008          |                            |                 | 0.2241            | 0.0146          | 0.0154            |
| Public Fire Protection  | 0.0000                    | 0.0000          |                            |                 | 0.7759            | 0.0507          | 0.0507            |
| <b>Total</b>            | <b>1.0000</b>             | <b>0.5734</b>   | <b>1.0000</b>              | <b>0.3613</b>   | <b>1.0000</b>     | <b>0.0653</b>   | <b>1.0000</b>     |

**FACTOR 4.**

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE AND MAX HOUR EXTRA CAPACITY FUNCT'**

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer Classification | Average Hourly Consumption |                   |                 | Maximum Hour Extra Capacity |                 | Fire Protection   |                 | Allocation Factor |
|-------------------------|----------------------------|-------------------|-----------------|-----------------------------|-----------------|-------------------|-----------------|-------------------|
|                         | Thousand Gallons           | Allocation Factor | Weighted Factor | Allocation Factor           | Weighted Factor | Allocation Factor | Weighted Factor |                   |
| (1)                     | (2)                        | (3)               | (4)=(3) X       | (5)                         | (6)=(5) X       | (7)               | (8)=(7) X       | (9)=(4)+(6)+(8)   |
|                         |                            |                   | 0.2606          |                             | 0.5536          |                   | 0.1858          |                   |
| Residential             | 2,801,369.0                | 0.6380            | 0.1663          | 0.7158                      | 0.3963          |                   |                 | 0.5626            |
| Commercial              | 766,148.3                  | 0.1745            | 0.0455          | 0.1398                      | 0.0774          |                   |                 | 0.1229            |
| Industrial              | 295,582.9                  | 0.0673            | 0.0175          | 0.0259                      | 0.0143          |                   |                 | 0.0319            |
| Other Public Authority  | 65,934.7                   | 0.0150            | 0.0039          | 0.0120                      | 0.0067          |                   |                 | 0.0106            |
| Sales for Resale        | 455,529.9                  | 0.1038            | 0.0270          | 0.1064                      | 0.0589          |                   |                 | 0.0860            |
| Private Fire Protection | 5,967.5                    | 0.0014            | 0.0004          |                             |                 | 0.2241            | 0.0416          | 0.0420            |
| Public Fire Protection  | 0.0                        | 0.0000            | 0.0000          |                             |                 | 0.7759            | 0.1442          | 0.1442            |
| <b>Total</b>            | <b>4,390,532.3</b>         | <b>1.0000</b>     | <b>0.2606</b>   | <b>1.0000</b>               | <b>0.5536</b>   | <b>1.0000</b>     | <b>0.1858</b>   | <b>1.0000</b>     |

Note: Industrial Average Hourly Consumption adjusted down 90% and Sales for Resale adjusted to zero.

**STAFF'S COSS WORKPAPER - ALL OTHER MISSOURI**

**FACTOR 3.**

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE, MAX DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.**

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer Classification | Average Daily Consumption |                 | Maximum Day Extra Capacity |                 | Fire Protection   |                 | Allocation Factor |
|-------------------------|---------------------------|-----------------|----------------------------|-----------------|-------------------|-----------------|-------------------|
|                         | Allocation Factor         | Weighted Factor | Allocation Factor          | Weighted Factor | Allocation Factor | Weighted Factor |                   |
| (1)                     | (2)                       | (3)=(2) X       | (4)                        | (5)=(4) X       | (6)               | (7)=(6) X       | (8)=(3)+(5)+(7)   |
|                         |                           | 0.5496          |                            | 0.3463          |                   | 0.1041          |                   |
| Residential             | 0.4354                    | 0.2393          | 0.5377                     | 0.1862          |                   |                 | 0.4255            |
| Commercial              | 0.1836                    | 0.1009          | 0.1701                     | 0.0589          |                   |                 | 0.1598            |
| Industrial              | 0.2488                    | 0.1367          | 0.1536                     | 0.0532          |                   |                 | 0.1899            |
| Other Public Authority  | 0.0437                    | 0.0240          | 0.0405                     | 0.0140          |                   |                 | 0.0381            |
| Sales for Resale        | 0.0882                    | 0.0485          | 0.0981                     | 0.0340          |                   |                 | 0.0825            |
| Private Fire Protection | 0.0003                    | 0.0002          |                            |                 | 0.2456            | 0.0256          | 0.0257            |
| Public Fire Protection  | 0.0000                    | 0.0000          |                            |                 | 0.7544            | 0.0786          | 0.0786            |
| <b>Total</b>            | <b>1.0000</b>             | <b>0.5496</b>   | <b>1.0000</b>              | <b>0.3463</b>   | <b>1.0000</b>     | <b>0.1041</b>   | <b>1.0000</b>     |

**FACTOR 4.**

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE AND MAX HOUR EXTRA CAPACITY FUNCT**

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer Classification | Average Hourly Consumption |                   |                 | Maximum Hour Extra Capacity |                 | Fire Protection   |                 | Allocation Factor |
|-------------------------|----------------------------|-------------------|-----------------|-----------------------------|-----------------|-------------------|-----------------|-------------------|
|                         | Thousand Gallons           | Allocation Factor | Weighted Factor | Allocation Factor           | Weighted Factor | Allocation Factor | Weighted Factor |                   |
| (1)                     | (2)                        | (3)               | (4)=(3) X       | (5)                         | (6)=(5) X       | (7)               | (8)=(7) X       | (9)=(4)+(6)+(8)   |
|                         |                            |                   | 0.3348          |                             | 0.5604          |                   | 0.1047          |                   |
| Residential             | 755.2                      | 0.4354            | 0.1458          | 0.5701                      | 0.3195          |                   |                 | 0.4653            |
| Commercial              | 318.5                      | 0.1836            | 0.0615          | 0.1717                      | 0.0962          |                   |                 | 0.1577            |
| Industrial              | 431.5                      | 0.2488            | 0.0833          | 0.1117                      | 0.0626          |                   |                 | 0.1459            |
| Other Public Authority  | 75.9                       | 0.0437            | 0.0146          | 0.0409                      | 0.0229          |                   |                 | 0.0376            |
| Sales for Resale        | 153.1                      | 0.0882            | 0.0295          | 0.1056                      | 0.0592          |                   |                 | 0.0888            |
| Private Fire Protection | 0.5                        | 0.0003            | 0.0001          |                             |                 | 0.2456            | 0.0257          | 0.0258            |
| Public Fire Protection  | 0.0                        | 0.0000            | 0.0000          |                             |                 | 0.7544            | 0.0790          | 0.0790            |
| <b>Total</b>            | <b>1,734.6</b>             | <b>1.0000</b>     | <b>0.3348</b>   | <b>1.0000</b>               | <b>0.5604</b>   | <b>1.0000</b>     | <b>0.1047</b>   | <b>1.0000</b>     |

Note: Industrial Average Hourly Consumption adjusted down 90% and Sales for Resale adjusted to zero.

## York, Jessica

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**From:** Roth, Keriann <Keriann.Roth@psc.mo.gov>  
**Sent:** Monday, January 9, 2023 9:27 AM  
**To:** Bretz, Karen; Gateley, Curtis  
**Subject:** FW: CCOS Questions

Karen,

Brian reached out on Friday asking if we can put together answers for the questions below and get them distributed to the parties.

Thanks!  
Keri

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**From:** Brian W LaGrand <Brian.LaGrand@amwater.com>  
**Sent:** Wednesday, December 21, 2022 9:45 AM  
**To:** Roth, Keriann <Keriann.Roth@psc.mo.gov>  
**Cc:** Wesley Selinger <Wesley.Selinger@amwater.com>  
**Subject:** CCOS Questions

Keri,

Here are some questions from Wes about your CCOS study:

- The total annual gallons for the Commercial group in the St. Louis County model doesn't tie to Staff's EMS run like the others, just curious if there's a reason for that.
  - This is an error and will be corrected.
- Tab 2B how were the factors in Column 3 derived (Cells C13:C17), 1, .75,.5,.75,.9 etc.)?
  - The factors came from a Staff CCOS in a previous case. This will be reviewed again.
- Tab F 3B 4B – Where does rate of flow in cell C12 (104M GPD) come from?
  - Staff will review again to ensure the formula is intact.
- Tab F3B 4B – Where do the factors in cells D50:D54 come from?
  - The factors came from a Staff CCOS in a previous case. This will be reviewed again.
- Factor 6-7 Tab – Where does the horsepower of pumps come from?
  - This information was pulled from a Staff CCOS in a previous case. This will be reviewed again.
- Staff describes a distribution multiplier adjustment within their testimony but as we discussed on our call yesterday, we don't see it applied anywhere in their model. Can you point us to that?
  - This could be an error. Staff will review again for rebuttal.

Thanks, and let us know.

BWL

Brian LaGrand  
Director of Rates & Regulatory Support  
Missouri American Water  
727 Craig Road | St. Louis, MO 63141  
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[brian.lagrand@amwater.com](mailto:brian.lagrand@amwater.com)



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**DATA INFORMATION REQUEST**  
**Missouri-American Water Company**  
**WR-2022-0303**  
**General Rate Case**

**Requested From:** Brian LaGrand

**Date Requested:** 12/12/2022

**Information Requested:**

Has MAWC compared the results of the new version of its class cost of service study model (i.e., the model structure and format provided in this case) with the results of the model using the structure and format from Case No. WR-2017-0285? If so, please provide a detailed explanation of the methods used for the comparison, the results of such a comparison, and all documents and workpapers supporting the comparison. Please provide workpapers in electronic spreadsheet format with all formulas and links intact. If MAWC has not compared the results of the two model structures based on a common set of units of service and revenue requirement, please provide a detailed explanation of why not.

**Requested By:** Jamie Reifsteck – [jreifsteck@chgolaw.com](mailto:jreifsteck@chgolaw.com)

**Information Provided:**

MAWC has not compared the results of its class cost of service study model with the results of the model/format used in Case No. WR-2017-0285. The model used in Case No. WR-2017-0285 was provided by an outside firm. Beginning with its last rate case, WR-2020-0344, MAWC has developed an in-house class cost of service study model that it believes provides more information, is more intuitive, and easier to follow.

**Responsible Witness:** Wes Selinger

**DATA INFORMATION REQUEST**  
**Missouri-American Water Company**  
**WR-2022-0303**  
**General Rate Case**

**Requested From:** Brian LaGrand

**Date Requested:** 12/22/2022

**Information Requested:**

Please refer to Schedule WES-1, Account Detail tab, page 7 of 9.

- a. Please confirm that this page shows \$294,652,995 of investment in TD Mains 10 inches to 16 inches. If not confirmed, please provide a detailed explanation supporting the response.
- b. Please break out the total investment of \$294,652,995 by size of mains included in this category.
- c. Please identify the portion of the \$294,652,995 investment associated with 16-inch mains.

**Requested By:** Jamie Reifsteck – [jreifsteck@chgolaw.com](mailto:jreifsteck@chgolaw.com)

**Information Provided:**

- a) The amount listed is the amount shown on the account detail tab of Schedule WES-1 for 10–16-inch transmission mains.
- b) Please see the attached file 2022 GRC – MIEC 5-05\_Attachment 1 for the percentage of each main size and associated cost. While completing this request the company became aware that certain assets were not placed in the appropriate plant sub-accounts, making the percentages used to allocate mains between transmission and distribution inaccurate. This does not impact the total dollar value of main. The attached file corrects this misplacement, and the Company intends to file a limited update of its COSSs in rebuttal to reflect this change.
- c) Please see (b) above.

**Responsible Witness:** Wes Selinger

**DATA INFORMATION REQUEST  
Missouri-American Water Company  
WR-2022-0303  
General Rate Case**

**Requested From:** Brian LaGrand

**Date Requested:** 12/22/2022

**Information Requested:**

Please refer to Schedule WES-1, Account Detail tab, page 4 of 9.

- a. Please confirm that this page shows \$4,707,531 of depreciation expense associated with TD Mains 10 inches to 16 inches. If not confirmed, please provide a detailed explanation supporting the response.
- b. Please break out the total depreciation expense of \$4,707,531 by size of mains included in this category.
- c. Please identify the portion of the \$4,707,531 depreciation expense associated with 16-inch mains.

**Requested By:** Jamie Reifsteck – [jreifsteck@chgolaw.com](mailto:jreifsteck@chgolaw.com)

**Information Provided:**

- a) The amount listed is the amount shown on the account detail tab of Schedule WES-1 for 10-16-inch transmission mains.
- b) Please see the Company's response to MIEC Data Request 5-05.
- c) Please see (b) above.

**Responsible Witness:** Wes Selinger

**DATA INFORMATION REQUEST  
Missouri-American Water Company  
WR-2022-0303  
General Rate Case**

**Requested From:** Brian LaGrand

**Date Requested:** 12/22/2022

**Information Requested:**

Please refer to Schedule WES-2, Account Detail tab, page 7 of 9.

- a. Please confirm that this page shows \$70,583,540 of investment in TD Mains 10 inches to 16 inches. If not confirmed, please provide a detailed explanation supporting the response.
- b. Please break out the total investment of \$70,583,540 by size of mains included in this category.
- c. Please identify the portion of the \$70,583,540 investment associated with 16-inch mains.

**Requested By:** Jamie Reifsteck – [jreifsteck@chgolaw.com](mailto:jreifsteck@chgolaw.com)

**Information Provided:**

- a) The amount listed is the amount shown on the account detail tab of Schedule WES-2 for 10-16-inch transmission mains.
- b) Please see the Company's response to MIEC Data Request 5-05 (b) and the associated attachment.
- c) Please see the response to (b) above.

**Responsible Witness:** Wes Selinger

**DATA INFORMATION REQUEST  
Missouri-American Water Company  
WR-2022-0303  
General Rate Case**

**Requested From:** Brian LaGrand

**Date Requested:** 12/22/2022

**Information Requested:**

Please refer to Schedule WES-2, Account Detail tab, page 4 of 9.

- a. Please confirm that this page shows \$1,125,994 of depreciation expense associated with TD Mains 10 inches to 16 inches. If not confirmed, please provide a detailed explanation supporting the response.
- b. Please break out the total depreciation expense of \$1,125,994 by size of mains included in this category.
- c. Please identify the portion of the \$1,125,994 depreciation expense associated with 16-inch mains.

**Requested By:** Jamie Reifsteck – [jreifsteck@chgolaw.com](mailto:jreifsteck@chgolaw.com)

**Information Provided:**

- a) The amount listed is the amount shown on the account detail tab of Schedule WES-2 for 10-16-inch transmission mains.
- b) Please see the Company's response to MIEC Data Request 5-05 (b) and the associated attachment.
- c) Please see the response to (b) above.

**Responsible Witness:** Wes Selinger