

## Exhibit No. 3

EXHIBITS SUPPORTING  
AMEREN MISSOURI RESPONSIVE COMMENTS,  
FILE NO. OX-2025-0104

Exhibit No.: 014  
Issue(s): AMS Charges  
Witness: John J. Reed  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric Company  
File No.: ER-2019-0335  
Date Testimony Prepared: July 3, 2019

**DIRECT TESTIMONY**

**OF**

**JOHN J. REED**

**ON BEHALF OF**

**AMEREN MISSOURI**

**July 2019**

**EXHIBIT A**

1 **Q. Can you provide examples of services that AMS has outsourced, on behalf of Ameren**  
2 **Missouri, to a non-affiliated service provider?**

3 A. Yes. Examples of services outsourced by AMS, on behalf of Ameren Missouri, include  
4 lock box services, printing and distribution of customer bills, certain vegetation  
5 management services, and janitorial services.

6 **VI. HISTORICAL COST ANALYSIS**

7 **Q. Have you prepared an analysis of how Ameren Missouri's customers have benefited**  
8 **from the formation of AMS?**

9 A. Yes. An analysis of Union Electric's administrative and general ("A&G") expense levels  
10 from 1999 to 2018 was prepared to determine if its customers have benefited from the  
11 formation of AMS concurrent with the merger with CIPS, CILCO and IP. In 2018, 96%  
12 of the dollars allocated to the Ameren Missouri electric distribution business from AMS  
13 were booked to administrative and general expenses.

14 **Q. Please explain the analysis.**

15 A. Starting with data from 1990, the reported A&G expense levels were collected as reported  
16 in FERC Form 1s. As previously mentioned, UE & CIPS merged in 1997. From that point  
17 forward, the historical actual expense levels were escalated using the gross domestic  
18 product implicit price deflator for each year through 2018.

19 The same analysis was performed for the acquisition of CILCO in 2003 and Illinois  
20 Power in 2004.

21 As shown in Schedule JJR-D4, the A&G cost levels for the merged companies are  
22 consistently lower than the sum of the individual stand-alone operating companies'

1           escalated A&G expense levels. This indicates that the merged companies, including AMS’  
2           allocated costs, are lower than they would likely have been absent the mergers.

3   **Q.   Have you also performed an assessment of Ameren Missouri’s costs compared to**  
4   **those of similar utilities?**

5   A.   Yes. I compared Ameren Missouri’s total non-fuel operations and maintenance (“O&M”)  
6           expense and administrative and general (“A&G”) expense against three peer groups:

- 7           1. National Electric Utilities with regulated generation;  
8           2. Midwest Electric Utilities with regulated generation; and  
9           3. National Electric Utilities with regulated generation and 500,000 to 2,000,000  
10          customers.

11 **Q.   What years did the benchmarking analyses review?**

12 A.   The five most recent years for which data were available (i.e., 2014-2018) were used to  
13          perform the analyses.

14 **Q.   What was the source of the data used to perform the benchmarking analyses?**

15 A.   The analysis utilized data obtained from the S&P Global Market Intelligence platform.  
16          The source of the data was the annual FERC Form 1 filings made by electric utilities.

17 **Q.   Did you make any adjustments to the source data?**

18 A.   No.

19 **Q.   How did you normalize the benchmarking analyses to account for differences in the**  
20 **size of the utilities?**

21 A.   To normalize issues related to the size of the companies in the comparison, all costs were  
22          evaluated on a per customer basis.

1 **Q. How many companies were included in electric utilities with regulated generation**  
2 **group?**

3 A. There were 52 utilities including Ameren Missouri.

4 **Q. How did Ameren Missouri compare to its peers when reviewing total non-fuel O&M**  
5 **cost per customer of the national electric utilities with regulated generation peer**  
6 **group?**

7 A. As shown on Schedule JJR-D5, Ameren Missouri has had below (i.e., better than) the  
8 national average non-fuel O&M costs in every year of the analysis. Over the five-year  
9 period, Ameren Missouri's costs have also increased at about one half of the rate that  
10 national average costs grew.

11 **Q. How did Ameren Missouri compare to its peers when reviewing just the A&G portion**  
12 **of these O&M expenses on a per customer basis?**

13 A. As shown on Schedule JJR-D6, out of the 52 companies in the peer group, Ameren  
14 Missouri's A&G expense per customer has shown a dramatic improvement on both an  
15 absolute and relative basis over the past five years. In 2014, Ameren Missouri's A&G cost  
16 per customer was 4.5% above the national average, but by 2018 they were 18.5% below  
17 the national average.

18 **Q. Does this significant improvement come as a surprise to you?**

19 A. No, it does not. At the end of 2012, Ameren Services formed a new Continuous  
20 Improvement Integration group that focused on identifying opportunities to reduce costs,  
21 improve productivity, improve reliability, improve customer satisfaction, or increase  
22 revenue across Ameren. The department leverages the results of benchmarking studies, as

1 well as other techniques to help identify potential improvement projects while reviewing  
2 the services and costs of the Ameren Services Business and Corporate Services group.

3 **Q. Is it possible that these results are biased by the inclusion of higher-cost utilities on**  
4 **the east and west coasts, as opposed to Midwestern utilities?**

5 A. No, in fact Ameren Missouri's costs are even more competitive when compared to Midwest  
6 utilities. As shown on Schedule JJR-D7, Ameren Missouri posted results that were 25%  
7 below the average for Midwest utilities for total non-fuel O&M costs in 2018. On this  
8 basis of comparison, Ameren Missouri is a top performer.

9 **Q. How did Ameren Missouri compare to its Midwest peers when reviewing A&G**  
10 **expense per customer?**

11 A. As shown on Schedule JJR-D8, Ameren Missouri's A&G cost per customer was more than  
12 28% below the regional average in 2018, and its performance gap over its peers had been  
13 widening over the past five years. Again, this shows very substantial benefits from AMS'  
14 Continuous Improvement Plan and shows a high level of productivity gains over that period  
15 of time.

16 **Q. When the comparisons are limited to the larger utilities, which presumably have**  
17 **economies of scale as AMS has been able to achieve, how does Ameren Missouri**  
18 **compare to the national averages?**

19 A. As shown on Schedule JJR-D9, Ameren Missouri achieved slightly below-average cost  
20 levels for total non-fuel O&M in each of the last three years. Even when compared to the  
21 smaller subset of 21 other larger utilities, Ameren Missouri is performing well.

22 **Q. When compared to the larger companies, how did Ameren Missouri look for just the**  
23 **A&G portion of O&M expense?**

1 A. As shown on Schedule JJR-D10, Ameren Missouri improved its A&G cost per customer  
2 in each year examined, while the peer group average increased year-over-year in three of  
3 the four year-over-year periods. In 2018, Ameren Missouri's A&G cost per customer was  
4 at the peer group average. This improvement again shows the focus that AMS has had  
5 on continuous improvement.

6 **Q. What can be concluded from the results of this analysis?**

7 A. As a result of the mergers of Union Electric, CIPS, CILCO, and IP, the Company has been  
8 able to drive down costs of the business. The source of reduced costs is from the  
9 consolidation of common corporate and A&G functions which now reside at AMS. These  
10 savings result from the elimination of duplicative positions (e.g., a CEO and CFO and  
11 Treasurer at each operating company, multiple CIOs, multiple General Counsels, etc.), as  
12 well as economies of scale attributable to the provisioning of services by a smaller number  
13 of employees than the four individual companies could have achieved. In addition, AMS  
14 and Ameren Missouri have had a successful continuous improvement campaign over the  
15 past six years that has brought Ameren Missouri's largest measure of cost, Total Non-Fuel  
16 O&M per customer, down to well below the peer group average levels for all three of the  
17 peer groups I have examined. These campaigns have delivered significant savings for  
18 customers, while maintaining compensation at competitive levels for employees working  
19 at AMC subsidiaries.

20 **Q. Based upon your review of AMS and the services that it provides to its affiliated**  
21 **companies, what are your observations and conclusions?**

22 A. My observations and conclusions are as follows:



Direct Testimony of  
John J. Reed

- 1           • The use of a shared services organizations, such as AMS, is reasonable and consistent  
2           with utility industry practices;
- 3           • The scope of services offered by AMS to its affiliated companies is consistent with  
4           other utility shared services companies with which I am familiar;
- 5           • Customers of Ameren Missouri have benefited from the existence of, and services  
6           provided by, AMS.

7 **Q. Does this conclude your direct testimony?**

8 **A.** Yes, it does.

Administrative and General Expense Detailed Analysis

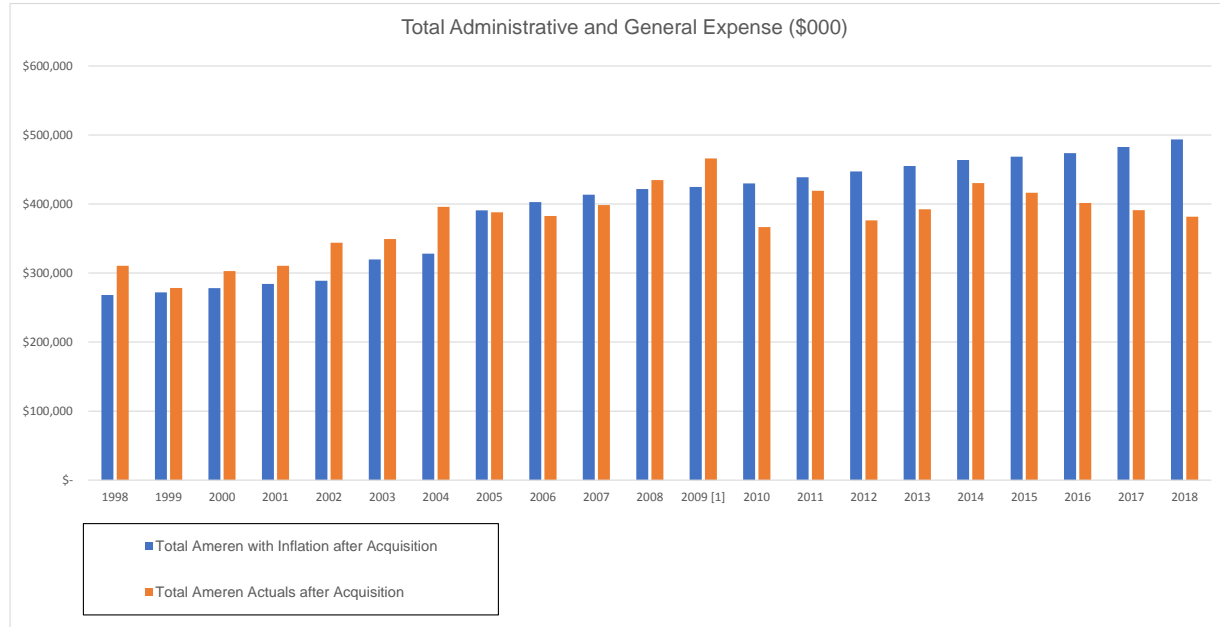
Total Administrative and General (\$000)

**Inflated after Acquisition**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018
Union Electric	199,146	201,386	204,292	208,861	213,453	216,826	220,840	226,784	233,851	240,938	247,408	252,241	254,151	257,104	262,477	267,516	272,204	277,348	280,325	283,386	288,771	295,278
CIPS (merger completed 12/31/1997)	66,040	66,783	67,747	69,262	70,784	71,903	73,234	75,205	77,549	79,899	82,045	83,647	84,280	85,260	87,042	88,713	90,267	91,973	92,960	93,975	95,761	97,919
CILCO (acquisition closed 1/31/2003)	27,607	27,500	55,274	16,810	18,876	25,074	25,538	26,226	27,043	27,862	28,611	29,169	29,390	29,732	30,353	30,936	31,478	32,073	32,417	32,771	33,394	34,146
IP (acquisition closed 9/30/2004)	76,303	86,538	86,766	71,635	47,579	46,025	58,861	49,599	52,521	54,113	55,566	56,651	57,080	57,744	58,950	60,082	61,135	62,290	62,959	63,647	64,856	66,317
Total Ameren with Inflation after Acquisition	199,146	268,169	272,039	278,123	284,237	288,729	319,612	328,215	390,964	402,812	413,630	421,708	424,902	429,839	438,822	447,246	455,085	463,684	468,662	473,780	482,782	493,661

**Actuals**

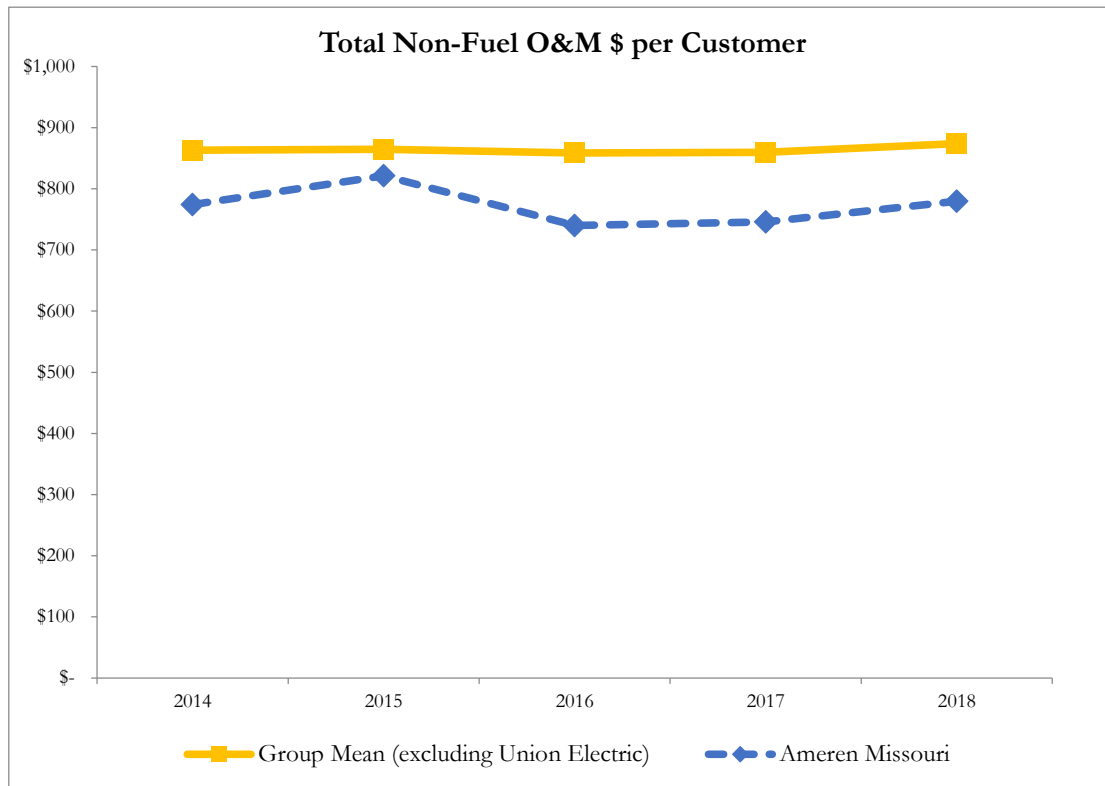
Union Electric	199,146	235,628	192,515	244,247	249,441	277,472	246,451	231,682	243,224	245,282	265,020	272,687	250,628	240,384	275,201	236,903	251,904	278,701	264,623	251,783	234,050	235,012
CIPS (merger completed 12/31/1997)	66,040	74,783	85,870	58,680	61,203	66,541	51,665	52,737	41,305	39,765	39,944	47,871	40,468									
CILCO (acquisition closed 1/31/2003)	27,607	27,500	55,274	16,810	18,876	25,074	51,181	61,881	36,057	30,052	32,037	27,610	97,824									
IP (acquisition closed 9/30/2004)	76,303	86,538	86,766	71,635	47,579	46,025	58,861	49,599	67,543	67,716	61,571	86,449	77,172									
Ameren Illinois														126,171	143,958	139,418	140,454	151,672	151,661	149,707	157,181	146,610
Total Ameren Actuals after Acquisition	199,146	310,411	278,385	302,927	310,644	344,013	349,297	395,899	388,129	382,815	398,572	434,617	466,092	366,555	419,159	376,321	392,358	430,373	416,284	401,490	391,231	381,622



**NOTES**

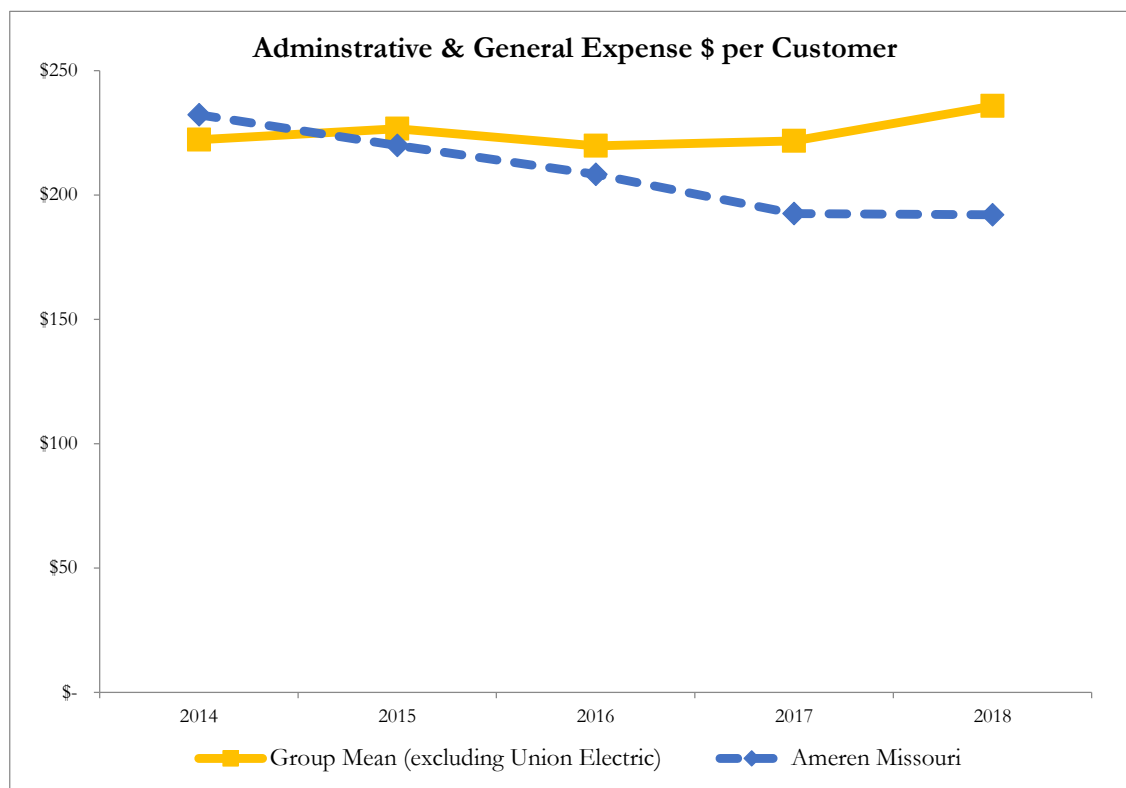
[1] Amount for CILCO in 2009 ties to the Form 1 which includes \$57,483 of intercompany billings recorded in account 921. In the Company's filing in Docket #12-0001, that amount was excluded.

## National Electric Utilities With Regulated Generation



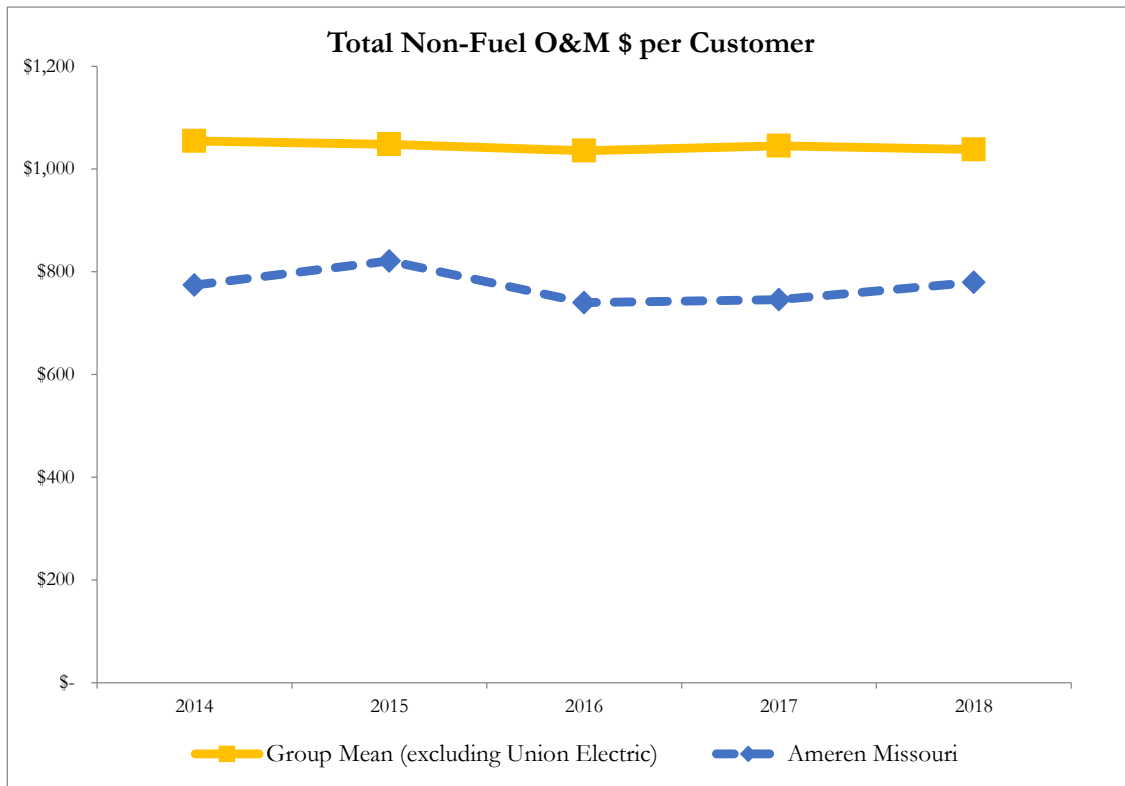
<b>Total Non-Fuel O&amp;M \$ per Customer</b>					
<i>Annual Values</i>					
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Ameren Missouri	774	821	740	746	779
Group Mean (excluding Union Electric)	863	865	859	859	874
<i>Rankings</i>					
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
National Electric Utilities With Regulated Generation					
Ameren Missouri	25	28	19	18	23
Quartile	2	3	2	2	2
Total Ranked	52	52	52	52	52

## National Electric Utilities With Regulated Generation



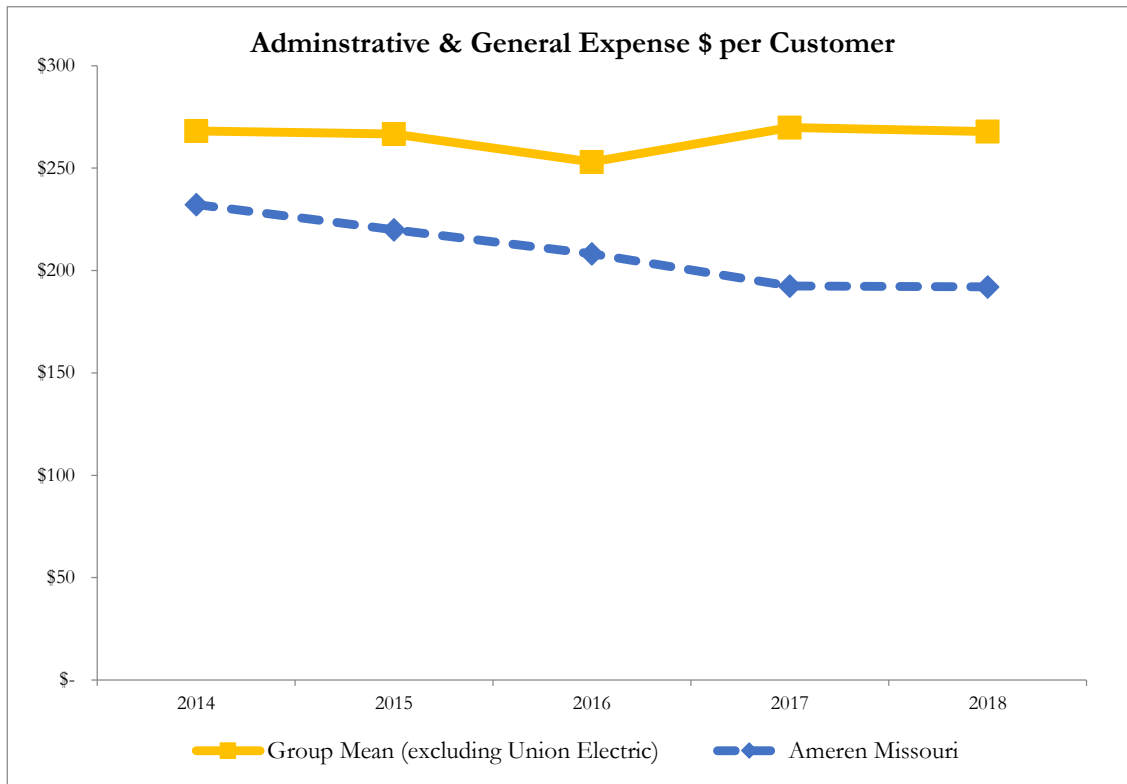
<b>Adminstrative &amp; General Expense \$ per Customer</b>					
<i>Annual Values</i>					
	2014	2015	2016	2017	2018
Ameren Missouri	232	220	208	193	192
Group Mean (excluding Union Electric)	222	227	220	222	236
<i>Rankings</i>					
	2014	2015	2016	2017	2018
Electric - Utilities, With Regulated Generation					
Ameren Missouri	30	30	30	26	22
Quartile	3	3	3	2	2
Total Ranked	52	52	52	52	52

## Midwest Electric Utilities With Regulated Generation



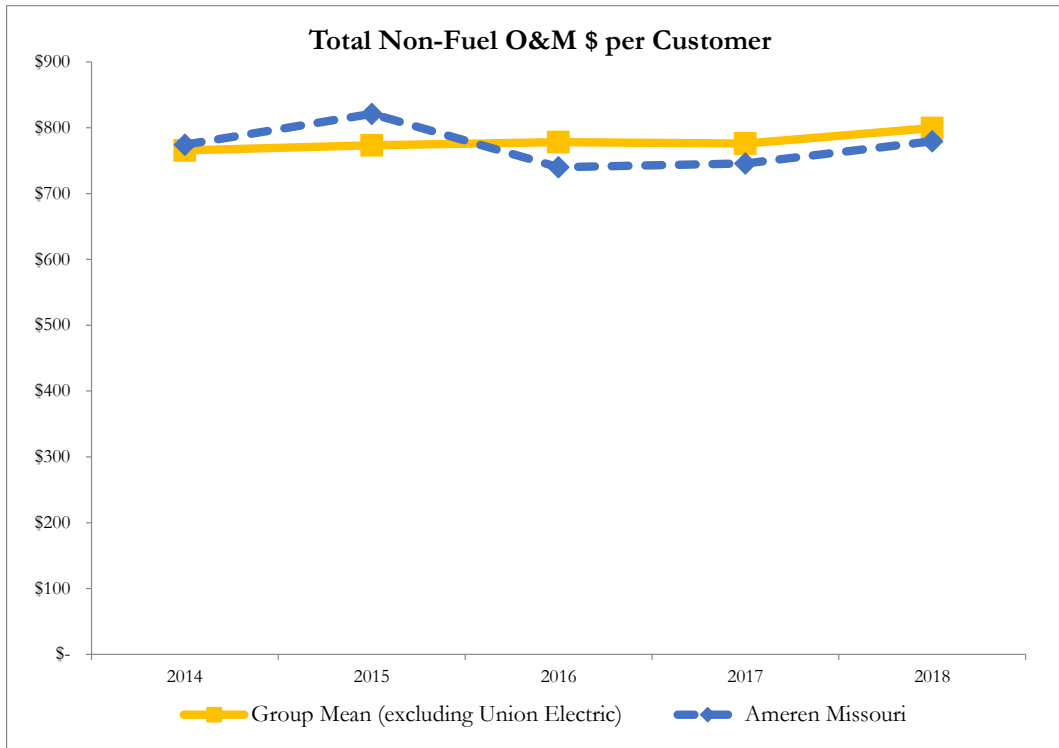
<b>Total Non-Fuel O&amp;M \$ per Customer</b>					
<i>Annual Values</i>					
	2014	2015	2016	2017	2018
Ameren Missouri	774	821	740	746	779
Group Mean (excluding Union Electric)	1,055	1,048	1,036	1,045	1,038
<i>Rankings</i>					
	2014	2015	2016	2017	2018
Midwest Electric Utilities With Regulated Generation					
Ameren Missouri	6	6	1	1	4
Quartile	2	2	1	1	1
Total Ranked	18	18	18	18	18

## Midwest Electric Utilities With Regulated Generation



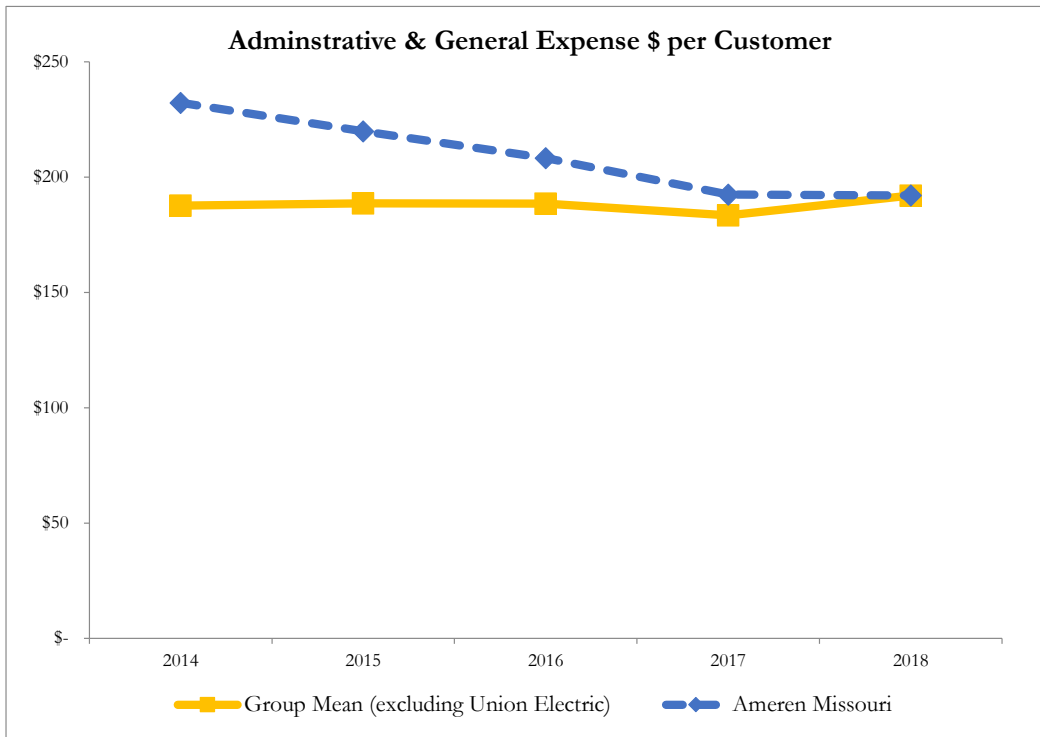
<b>Adminstrative &amp; General Expense \$ per Customer</b>					
<i>Annual Values</i>					
	2014	2015	2016	2017	2018
Ameren Missouri	232	220	208	193	192
Group Mean (excluding Union Electric)	268	267	253	270	268
<i>Rankings</i>					
	2014	2015	2016	2017	2018
Electric - Midwest Utilities With Regulated Generation					
Ameren Missouri	7	6	7	5	5
Quartile	2	2	2	2	2
Total Ranked	18	18	18	18	18

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



<b>Total Non-Fuel O&amp;M \$ per Customer</b>					
<i>Annual Values</i>					
	2014	2015	2016	2017	2018
Ameren Missouri	774	821	740	746	779
Group Mean (excluding Union Electric)	766	773	778	776	800
<i>Rankings</i>					
	2014	2015	2016	2017	2018
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers					
Ameren Missouri	12	14	10	9	11
Quartile	3	3	2	2	3
Total Ranked	21	21	21	21	21

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



<b>Adminstrative &amp; General Expense \$ per Customer</b>					
<i>Annual Values</i>					
	2014	2015	2016	2017	2018
Ameren Missouri	232	220	208	193	192
Group Mean (excluding Union Electric)	188	189	189	183	192
<i>Rankings</i>					
	2014	2015	2016	2017	2018
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers					
Ameren Missouri	16	15	15	13	11
Quartile	4	3	3	3	3
Total Ranked	21	21	21	21	21



Exhibit No.:  
Issue(s): Affiliate Transactions  
Witness: John J. Reed  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric  
Company  
File No.: ER-2021-0240  
Date Testimony Prepared: March 31, 2021

**DIRECT TESTIMONY**  
**OF**  
**JOHN J. REED**  
**ON BEHALF OF**  
**UNION ELECTRIC COMPANY**  
**d/b/a AMEREN MISSOURI**

**Marlborough, Massachusetts**  
**March, 2021**

**EXHIBIT B**

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**VI. HISTORICAL COST ANALYSIS**

**Q. Have you prepared an analysis of how Ameren Missouri’s customers have benefited from the formation of AMS?**

A. Yes. An analysis of Ameren Missouri’s administrative and general (“A&G”) expense levels from 1999 to 2019 was prepared to determine if its customers have benefited from the formation of AMS concurrent with the merger with CIPS, CILCO and IP. In 2019, 91% of the operation and maintenance expense dollars allocated to the Ameren Missouri electric distribution business from AMS included within revenue requirement were booked to administrative and general expenses.

**Q. Please explain the analysis.**

A. Starting with data from 1990, the reported A&G expense levels were collected as reported in FERC Form 1s. As previously mentioned, UE & CIPS merged in 1997. From that point forward, the historical actual expense levels were escalated using the gross domestic product implicit price deflator for each year through 2019. The same analysis was performed for the acquisition of CILCO in 2003 and Illinois Power in 2004. As shown in Schedule JJR-D3, the A&G cost levels for the merged companies are consistently lower than the sum of the individual stand-alone operating companies’ escalated A&G expense levels. This indicates that the merged companies, including AMS’ allocated costs, are lower than they would likely have been absent the mergers.

**Q. Have you also performed an assessment of Ameren Missouri’s costs compared to those of similar utilities?**

1 A. Yes. I updated the benchmarking analysis performed in File No. ER-2019-0335 to  
2 include an analysis of 2019. I compared Ameren Missouri's total non-fuel  
3 operations and maintenance ("O&M") expense and A&G expense against three  
4 peer groups:

- 5 1. National Electric Utilities with regulated generation;
- 6 2. Midwest Electric Utilities with regulated generation; and
- 7 3. National Electric Utilities with regulated generation and 500,000 to 2,000,000  
8 customers.

9 **Q. What years did the benchmarking analyses review?**

10 A. The six most recent years for which data were available (i.e., 2014-2019) were used  
11 to perform the analyses. This represents the years reviewed in File No. ER-2019-  
12 0335 updated with current data and 2019 added to the analyses.

13 **Q. What was the source of the data used to perform the benchmarking analyses?**

14 A. The analyses utilized data obtained from the S&P Global Market Intelligence  
15 platform. The source of the data was the annual FERC Form 1 filings made by  
16 electric utilities.

17 **Q. Did you make any adjustments to the source data?**

18 A. No.

19 **Q. How did you normalize the benchmarking analyses to account for differences  
20 in the size of the utilities?**

21 A. To normalize issues related to the size of the companies in the comparison, all costs  
22 were evaluated on a per customer basis.

1    **Q.    How did Ameren Missouri compare to its peers when reviewing total non-fuel**  
2           **O&M cost per customer of the national electric utilities with regulated**  
3           **generation peer group?**

4    A.    As shown on Schedule JJR-D4, Ameren Missouri has had below (i.e., better than)  
5           the national average non-fuel O&M costs in all six years analyzed. Ameren  
6           Missouri's total non-fuel O&M cost per customer was 7.5% below the national  
7           average in 2019.

8    **Q.    How did Ameren Missouri compare to its peers when reviewing just the A&G**  
9           **portion of these O&M expenses on a per customer basis?**

10   A.    As shown on Schedule JJR-D5, Ameren Missouri's A&G expense per customer  
11           has shown a dramatic improvement on both an absolute and relative basis over the  
12           past six years. In 2014, Ameren Missouri's A&G cost per customer was 6.3%  
13           above the national average, but by 2019 they were 18.5% below the national  
14           average.

15   **Q.    Is it possible that these results are biased by the inclusion of higher-cost**  
16           **utilities on the east and west coasts, as opposed to Midwestern utilities?**

17   A.    No, in fact Ameren Missouri's costs are even more competitive when compared to  
18           Midwest utilities. As shown on Schedule JJR-D6, Ameren Missouri posted results  
19           that were 17.8% below the average for Midwest utilities for total non-fuel O&M  
20           costs in 2019 and has been considerably below the regional average each year  
21           analyzed. On this basis of comparison, Ameren Missouri is a top performer.

1 **Q. How did Ameren Missouri compare to its Midwest peers when reviewing A&G**  
2 **expense per customer?**

3 A. As shown on Schedule JJR-D7, Ameren Missouri's A&G cost per customer was  
4 more than 25% below the regional average in 2019, and its performance advantage  
5 over its peers had been widening over the past six years.

6 **Q. When the comparisons are limited to the larger utilities, which presumably**  
7 **have economies of scale as AMS has been able to achieve, how does Ameren**  
8 **Missouri compare to the national averages?**

9 A. As shown on Schedule JJR-D8, when compared to national electric utilities with  
10 regulated generation and between 500,000 and 2 million customers, Ameren  
11 Missouri achieved slightly lower-than-average cost levels for total non-fuel O&M  
12 in 2019 and has achieved slightly lower-than-average cost levels for total non-fuel  
13 O&M each year since 2016. Even when compared to the smaller subset of 21 other  
14 large utilities, Ameren Missouri is performing well.

15 **Q. When compared to the larger companies, how did Ameren Missouri look for**  
16 **just the A&G portion of O&M expense?**

17 A. As shown on Schedule JJR-D9, Ameren Missouri improved its A&G cost per  
18 customer in each year examined, while the peer group average remained consistent  
19 during the same period. In 2019, Ameren Missouri's A&G cost per customer was  
20 below the large company peer group average by 6.9%.

21 **Q. What can be concluded from the results of these analyses?**

22 A. As a result of the mergers of Union Electric, CIPS, CILCO, and IP, the Company  
23 has been able to drive down costs of the businesses. The source of reduced costs is

1 from the consolidation of common corporate and A&G functions which now reside  
2 at AMS. These savings result from the elimination of duplicative positions (e.g., a  
3 CEO and CFO and Treasurer at each operating company, multiple CIOs, multiple  
4 General Counsels, etc.) as well as economies of scale attributable to the  
5 provisioning of services by a smaller number of employees than the four individual  
6 companies could have achieved separately. In addition, AMS and Ameren  
7 Missouri engage in continuous improvement efforts that should be expected to  
8 contribute to bringing down Ameren Missouri's largest measure of controllable  
9 cost, Total Non-Fuel O&M per customer, which is in fact well below the peer group  
10 average levels for all three of the peer groups I have examined. The numbers  
11 indicate that these efforts have delivered significant savings for customers, while  
12 maintaining compensation at competitive levels for employees working at AMC  
13 subsidiaries.

14 **Q. Have you expanded the benchmarking?**

15 A. Yes. I have done some additional benchmarking to further assess Ameren  
16 Missouri's financial and operational performance.

17 **Q. In general, what steps did you take in constructing this additional  
18 benchmarking analysis?**

19 A. The first step of the benchmarking analysis was to define the timeframe over which  
20 the analysis was to be performed. The second step was to develop the composition  
21 of the peer group used to compare to Ameren Missouri. The third step was to define  
22 the financial and operational metrics to be used in the benchmarking and to collect  
23 the necessary data to evaluate these metrics.

1 **Q. How did you select the companies to include in your benchmarking peer**  
2 **group?**

3 A. My objective in determining the peer group was to achieve the largest group of  
4 companies for which consistent data were available and which were, broadly  
5 speaking, operationally similar to Ameren Missouri. Because Ameren Missouri is  
6 a large primarily electric utility with ownership in generating resources, I  
7 established a peer group of companies with electric-only utility operations that have  
8 between 500,000 and 2 million customers and own generating resources. This  
9 produced a peer group of 21 comparable companies.

10 **Q. What data sources did you rely on for the performance metrics that you**  
11 **developed?**

12 A. I obtained much of the data from FERC Form 1 and U.S. Securities and Exchange  
13 Commission (“SEC”) Form 10-K reports (as reported by SNL Financial).

14 **Q. What metrics did you use to assess Ameren Missouri’s financial and**  
15 **operational performance?**

16 A. I evaluated Ameren Missouri’s performance across a variety of financial and  
17 operational metrics to evaluate the Company’s cost efficiency.

18 Regarding cost efficiency – the ability to maximize output and minimize costs, I  
19 considered expense performance metrics:

- 20 • Total Non-Fuel O&M expenses
- 21 • Non-Fuel Production O&M expenses
- 22 • Transmission O&M expenses
- 23 • Distribution O&M expenses

- 1                   • Administrative and General (“A&G”) expenses  
2                   • Customer expenses

3 **Q. Did the metrics account for companies of different sizes?**

4 A. Yes. Most metrics are calculated on an expense per customer or an expense per  
5 MWh sold basis.

6 **Q. Have you provided the results of the expense performance metrics?**

7 A. Yes. Schedule JJR-D10 thru Schedule JJR-D23 provides the results of each of the  
8 expense performance metrics listed above.

9 **Q. Overall how did Ameren Missouri compare to its peers in regards to the**  
10 **expense performance metrics?**

11 A. In reviewing the four primary operating functions (generation, transmission,  
12 distribution, and customer service), and administrative and general expenses,  
13 Ameren Missouri is a strong performer in controlling its expenses per customer.  
14 Ameren Missouri was below the peer group mean in every year of the analysis for  
15 Non-Fuel Production O&M expenses per customer and Transmission O&M  
16 expenses per customer. While Ameren Missouri was above the group mean in  
17 every year of the analysis for Distribution O&M expenses per customer, its ranking  
18 is improving and in 2019 ranked 12th of the 21 companies in the peer group.  
19 Ameren Missouri was below the peer group mean in Administrative and General  
20 expenses per customer in 2018 and 2019 and Ameren Missouri improved its A&G  
21 cost per customer in each year examined, while the peer group average remained  
22 consistent during the same period.



1 **Q. Which metrics provide the best indication of Ameren Missouri's overall**  
2 **performance relative to the peer groups?**

3 A. While each metric is significant and may help identify particular areas of strength  
4 or weakness, the best indication of Ameren Missouri's overall level of performance  
5 in terms of cost control, which also provides a good indication of the reasonableness  
6 of AMS costs since it provides significant services to Ameren Missouri, is Total  
7 Non-Fuel O&M expenses per customer. This category covers all four primary  
8 operating functions (generation, transmission, distribution, and customer service),  
9 and includes all administrative and general functions which, as noted, make up  
10 nearly all AMS costs. Further, this metric has the advantage of removing the effects  
11 of differences in fuel costs, which can vary due to availability, location, and state  
12 or local environmental policies.

13 **Q. Please discuss how Ameren Missouri compares to its peers in regards to the**  
14 **Total Non-Fuel O&M expense metric.**

15 A. Ameren Missouri's performance controlling its non-fuel O&M expense per  
16 customer and per MWh sold is strong in each year of my analysis coming in below  
17 the peer group average in the four most recent years in the per customer analysis  
18 and right around the peer group average for each year in the per MWh sold analysis.

19 **VII. REQUIREMENTS FROM STIPULATION IN FILE NO. ER-2019-0335**

20 **Q. Please summarize the information concerning affiliate transactions that**  
21 **Ameren Missouri agreed to provide per the Second Stipulation in Ameren**  
22 **Missouri's most recent electric rate case, File No. ER-2019-0335.**

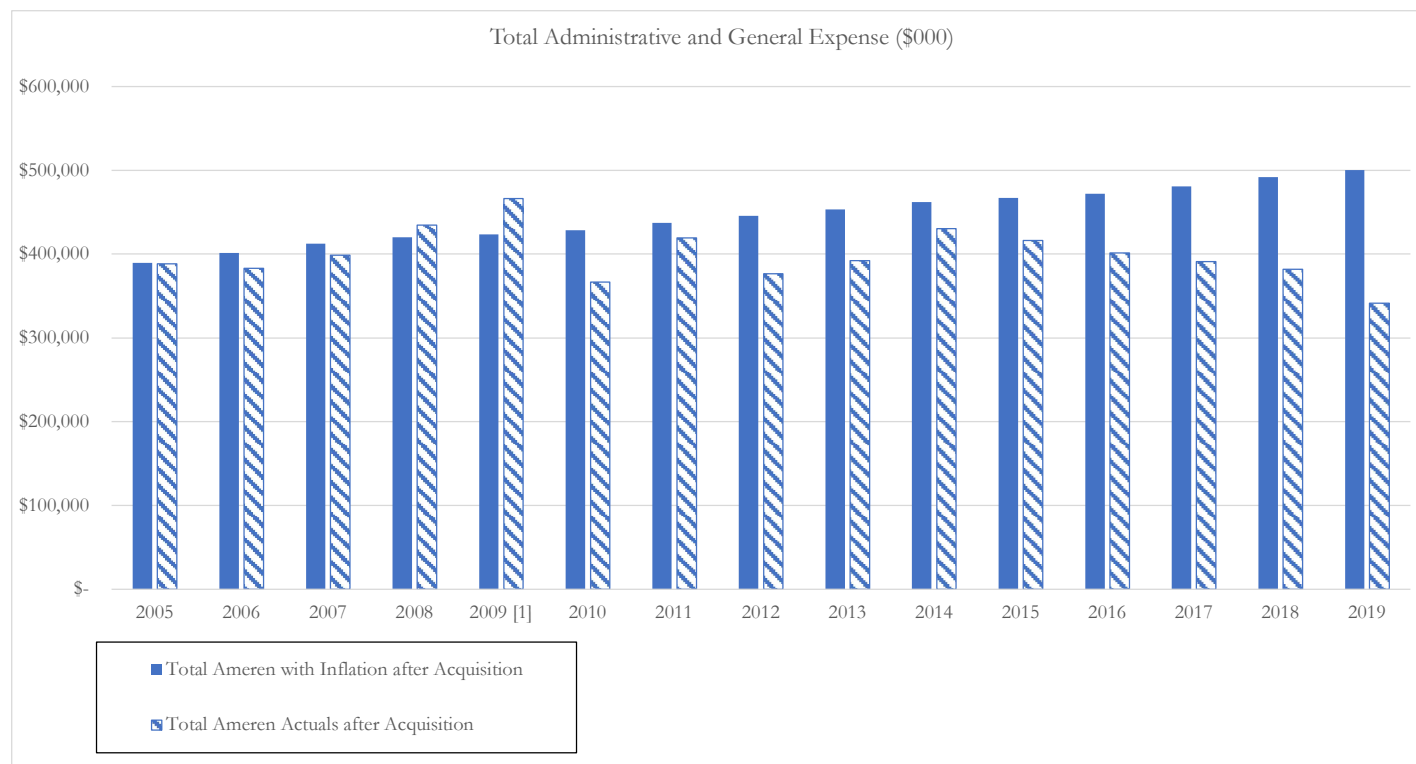
23 A. Ameren Missouri agreed to file or provide the following items:

Administrative and General Expense Detailed Analysis

**Total Administrative and General (\$000)**

<b>Inflated after Acquisition</b>															
	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Union Electric	233,851	240,938	247,408	252,241	254,151	257,104	262,477	267,516	272,204	277,348	280,325	283,386	288,771	295,278	300,321
CIPS (merger completed 12/31/1997)	77,549	79,899	82,045	83,647	84,280	85,260	87,042	88,713	90,267	91,973	92,960	93,975	95,761	97,919	99,591
CILCO (acquisition closed 1/31/2003)	27,043	27,862	28,611	29,169	29,390	29,732	30,353	30,936	31,478	32,073	32,417	32,771	33,394	34,146	34,730
IP (acquisition closed 9/30/2004)	51,145	52,695	54,110	55,166	55,584	56,230	57,405	58,507	59,533	60,633	61,213	61,854	63,016	64,530	65,682
<b>Total Ameren with Inflation after Acquisition</b>	<b>389,588</b>	<b>401,394</b>	<b>412,173</b>	<b>420,223</b>	<b>423,406</b>	<b>428,326</b>	<b>437,277</b>	<b>445,672</b>	<b>453,482</b>	<b>462,027</b>	<b>466,915</b>	<b>471,987</b>	<b>480,942</b>	<b>491,873</b>	<b>500,324</b>

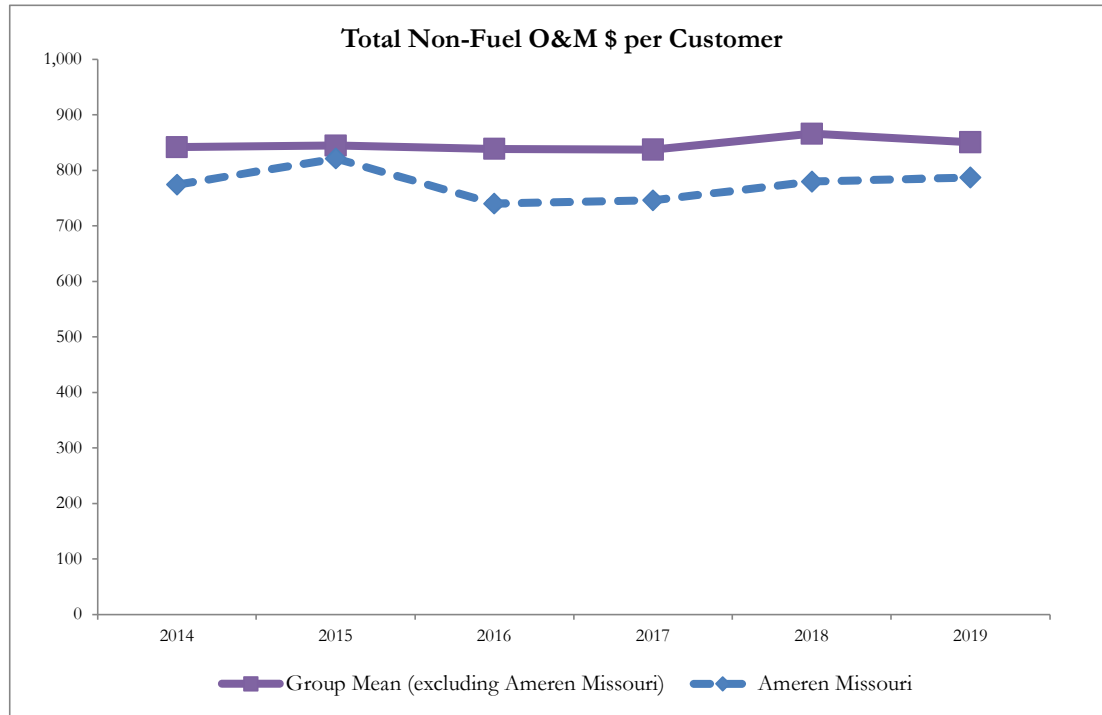
<b>Actuals</b>															
Union Electric	243,224	245,282	265,020	272,687	250,628	240,384	275,201	236,903	251,904	278,701	264,623	251,783	234,050	235,012	214,437
CIPS (merger completed 12/31/1997)	41,305	39,765	39,944	47,871	40,468										
CILCO (acquisition closed 1/31/2003)	36,057	30,052	32,037	27,610	97,824										
IP (acquisition closed 9/30/2004)	67,543	67,716	61,571	86,449	77,172										
Ameren Illinois						126,171	143,958	139,418	140,454	151,672	151,661	149,707	157,181	146,610	126,801
<b>Total Ameren Actuals after Acquisition</b>	<b>388,129</b>	<b>382,815</b>	<b>398,572</b>	<b>434,617</b>	<b>466,092</b>	<b>366,555</b>	<b>419,159</b>	<b>376,321</b>	<b>392,358</b>	<b>430,373</b>	<b>416,284</b>	<b>401,490</b>	<b>391,231</b>	<b>381,622</b>	<b>341,238</b>



**NOTES**

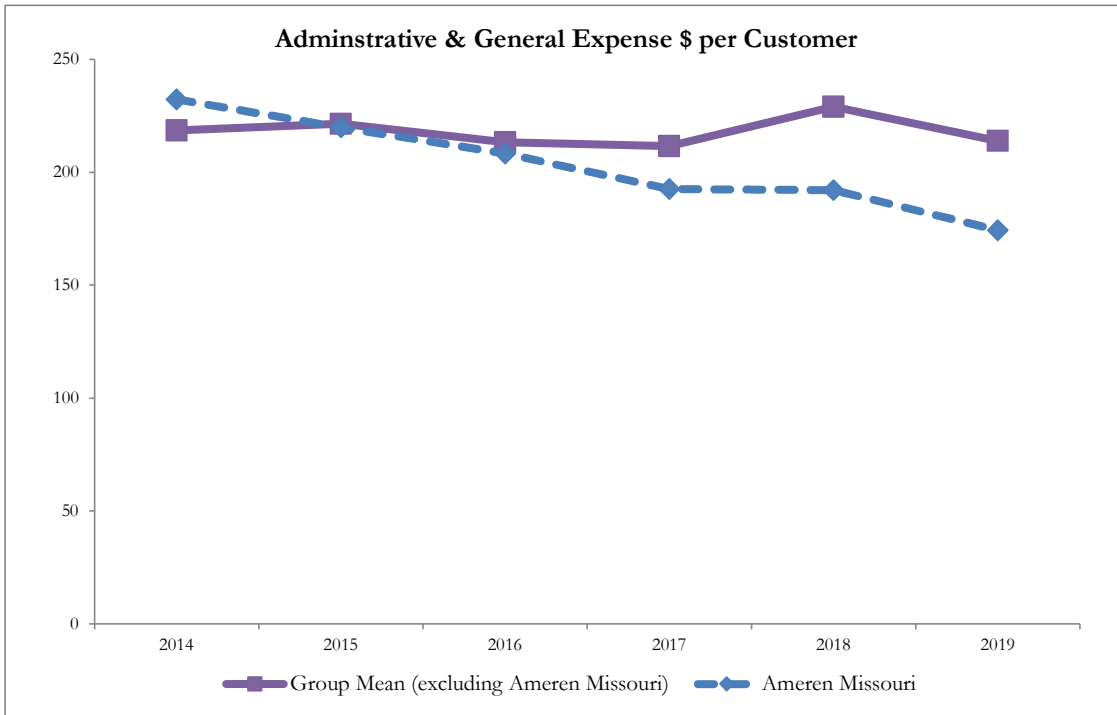
[1] Amount for CILCO in 2009 ties to the Form 1 which includes \$57,483 of intercompany billings recorded in account 921. In the Company's filing in Docket #12-0001, that amount was excluded.

**National Electric Utilities With Regulated Generation**



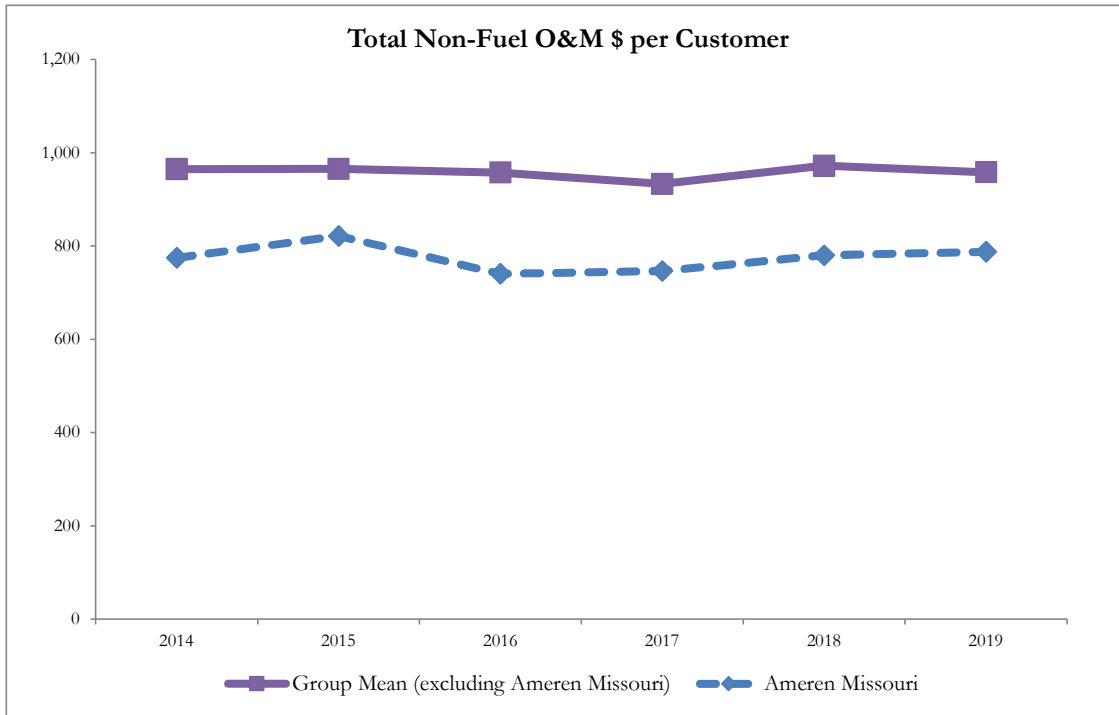
<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	774	821	740	746	779	787
Group Mean (excluding Ameren Missouri)	842	844	839	837	866	851
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
National Electric Utilities With Regulated Generation						
Ameren Missouri	25	28	19	19	23	23
Quartile	2	3	2	2	2	2
Total Ranked	50	50	50	51	51	51

**National Electric Utilities With Regulated Generation**



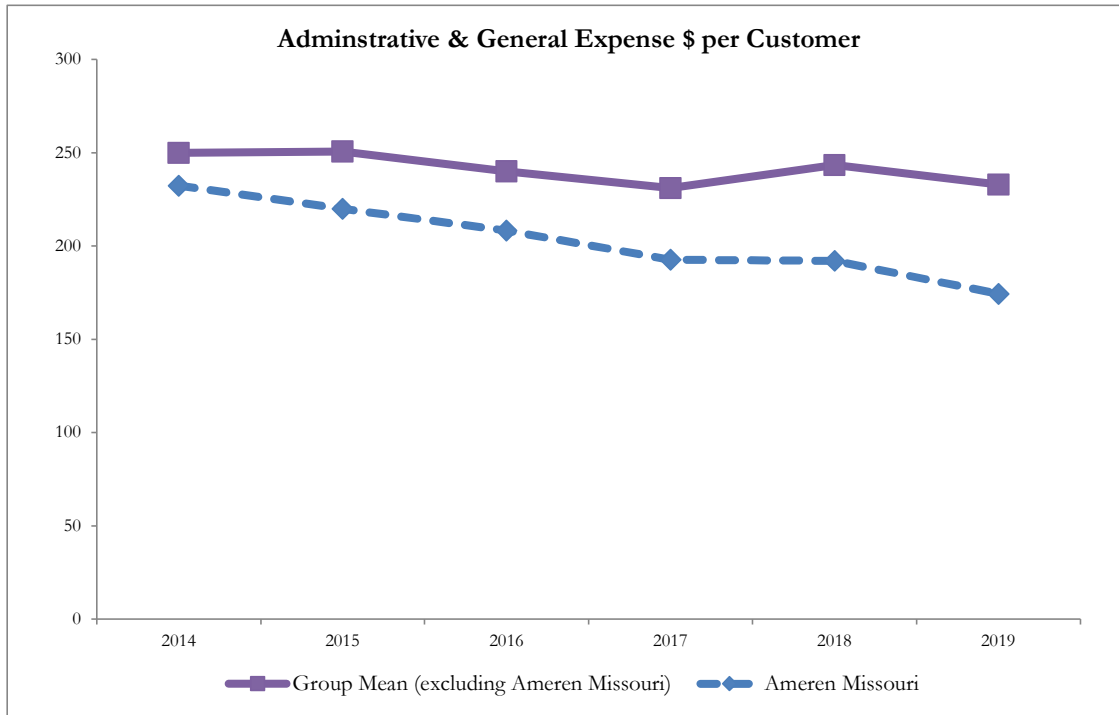
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	232	220	208	193	192	174
Group Mean (excluding Ameren Missouri)	218	221	213	212	229	214
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
National Electric Utilities With Regulated Generation						
Ameren Missouri	30	30	30	26	22	20
Quartile	3	3	3	3	2	2
Total Ranked	50	50	50	51	51	51

**Midwest Electric Utilities With Regulated Generation**



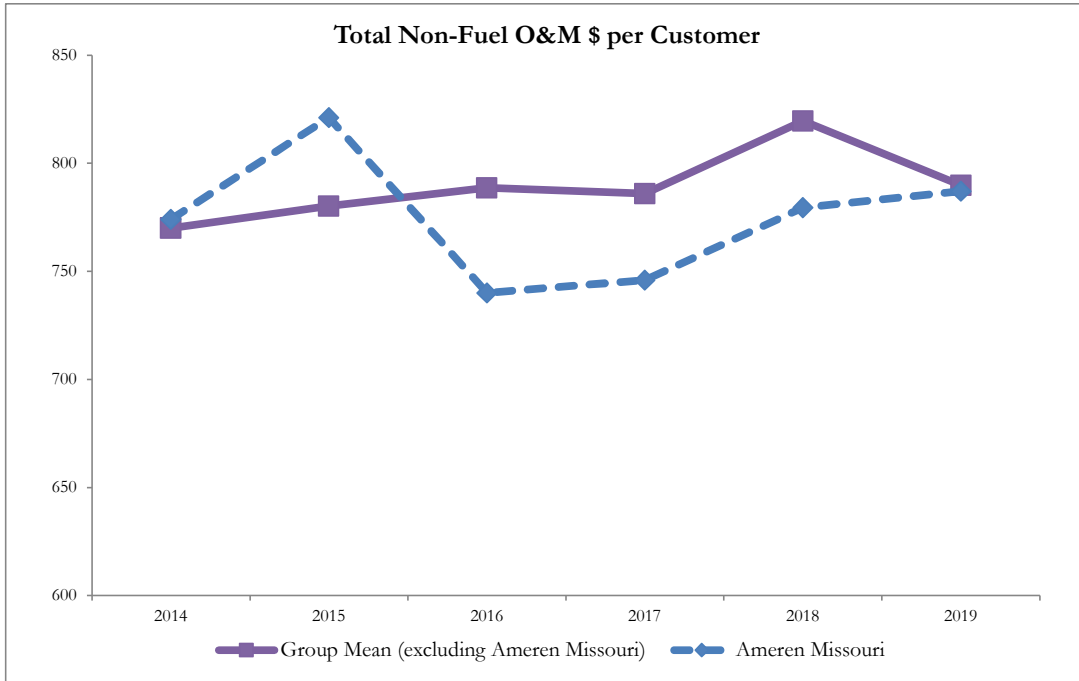
<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	774	821	740	746	779	787
Group Mean (excluding Ameren Missouri)	964	965	957	933	972	958
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Midwest Electric Utilities With Regulated Generation						
Ameren Missouri	6	6	1	2	4	3
Quartile	2	2	1	1	1	1
Total Ranked	16	16	16	17	17	17

**Midwest Electric Utilities With Regulated Generation**



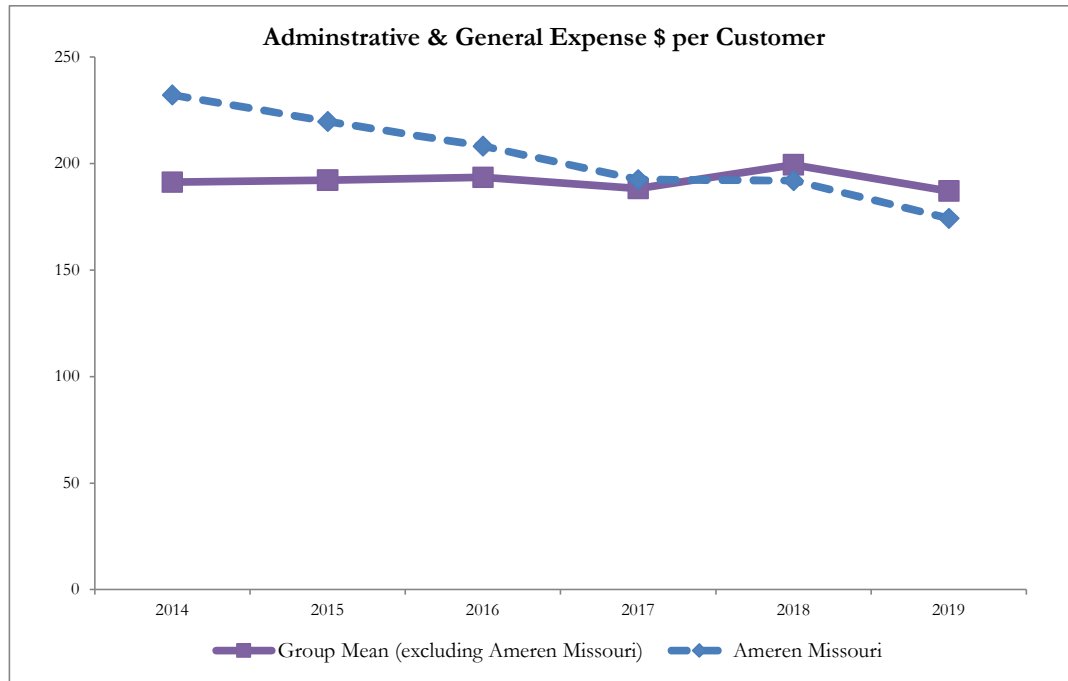
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	232	220	208	193	192	174
Group Mean (excluding Ameren Missouri)	250	251	240	231	243	233
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Midwest Electric Utilities With Regulated Generation						
Ameren Missouri	7	6	7	6	6	6
Quartile	2	2	2	2	2	2
Total Ranked	16	16	16	17	17	17

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	774	821	740	746	779	787
Group Mean (excluding Ameren Missouri)	770	780	789	786	820	790
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	12	14	9	8	10	11
Quartile	3	3	2	2	2	3
Total Ranked	21	21	21	21	21	21

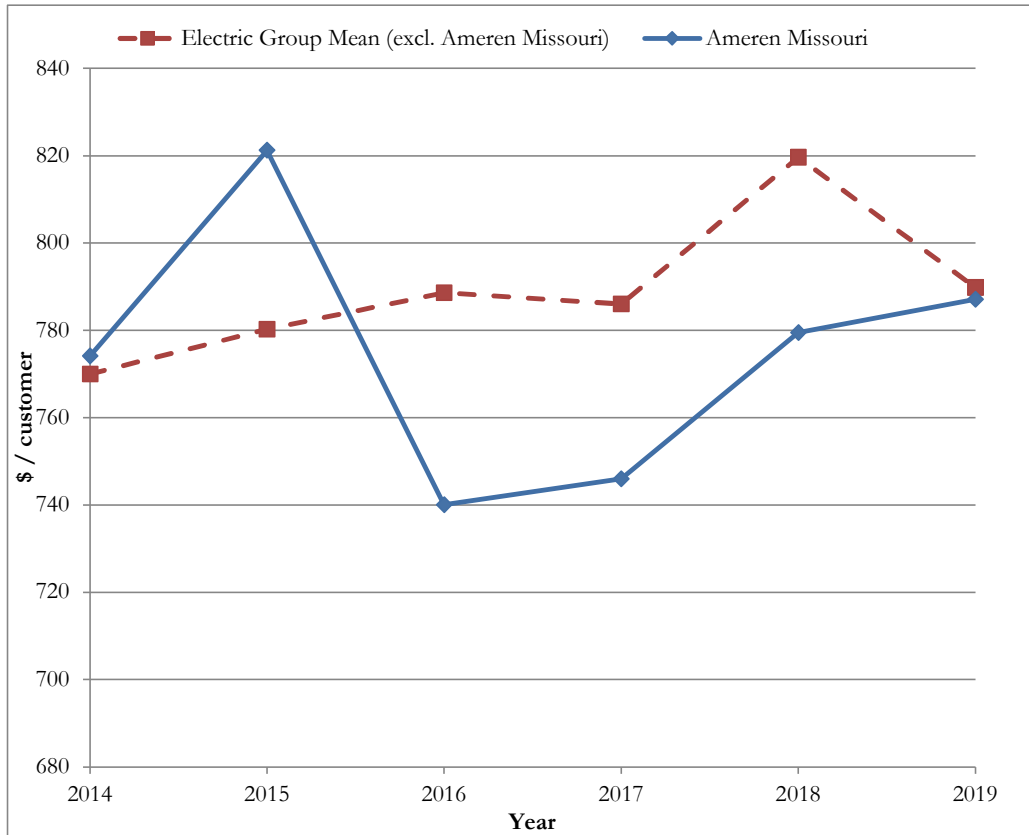
**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	232	220	208	193	192	174
Group Mean (excluding Ameren Missouri)	191	192	193	188	199	187
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	15	14	14	12	10	10
Quartile	3	3	3	3	2	2
Total Ranked	21	21	21	21	21	21



## Total Non-Fuel O&M per Customer Cost Efficiency

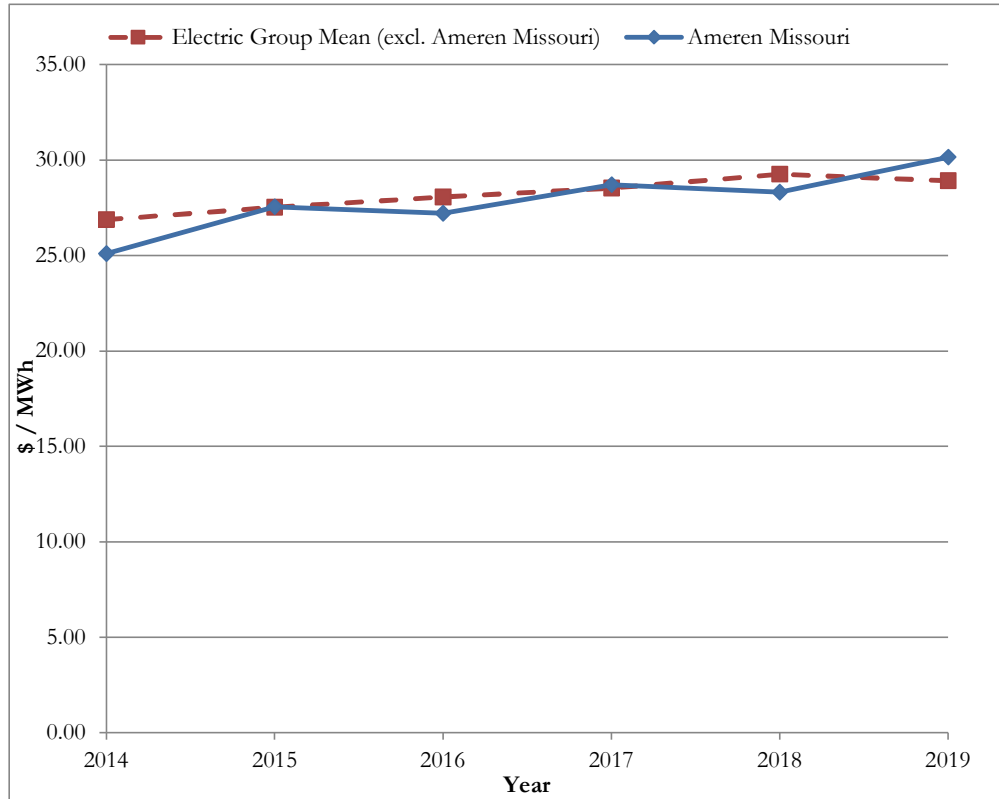


<b>Total Non-Fuel O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	774	821	740	746	779	787
Electric Group Mean (excl. Ameren Missouri)	770	780	789	786	820	790
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	12	14	9	8	10	11
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Ult Consumer Electric Customers

## Total Non-Fuel O&M per MWh Sold Cost Efficiency

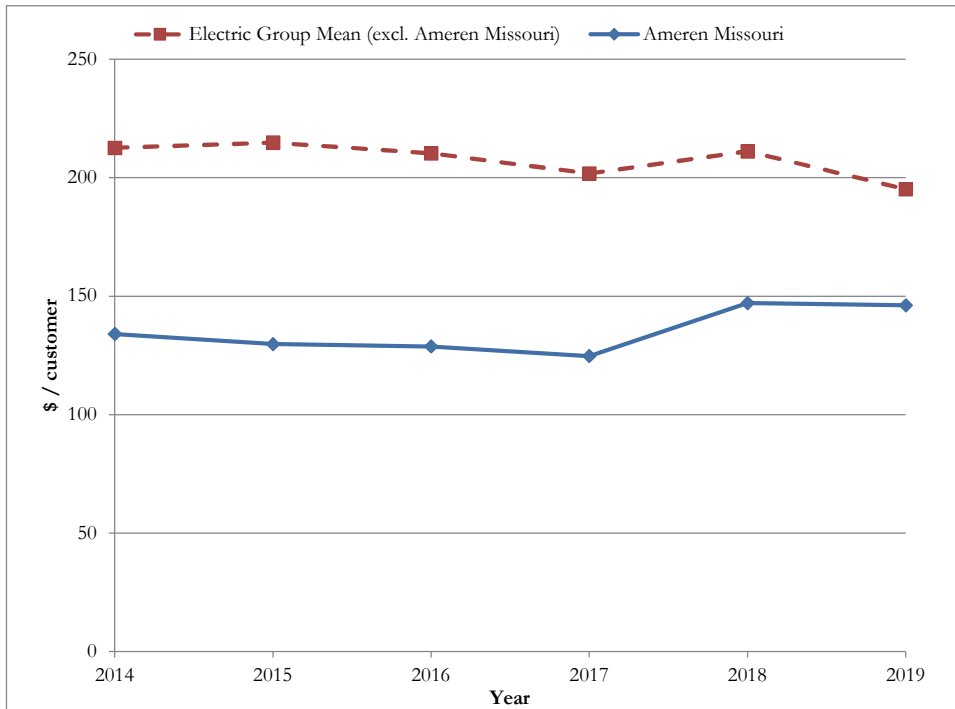


<b>Total Non-Fuel O&amp;M per MWh Sold</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	25.1	27.5	27.2	28.7	28.3	30.1
Electric Group Mean (excl. Ameren Missouri)	26.9	27.5	28.1	28.5	29.3	28.9
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	12	14	12	12	13	13
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## Non-Fuel Production O&M (Excluding Nuclear) per Customer Cost Efficiency

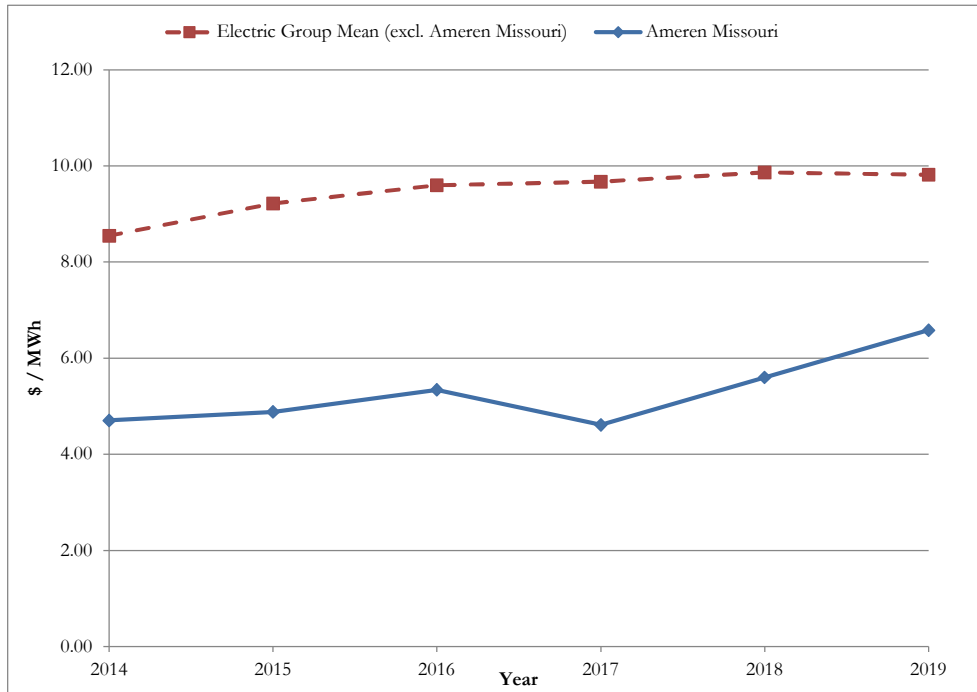


Non-Fuel Production O&M (Excluding Nuclear) per Customer						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	134	130	129	125	147	146
Electric Group Mean (excl. Ameren Missouri)	213	215	210	202	211	195
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	4	3	4	5	6	7
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total Power Production O&M Expenses, excluding Nuclear less fuel, Purchased Power, and Other Expenses; Total Electric Customers

**Non-Fuel Production O&M per MWh Produced (Excluding Nuclear)  
Cost Efficiency**

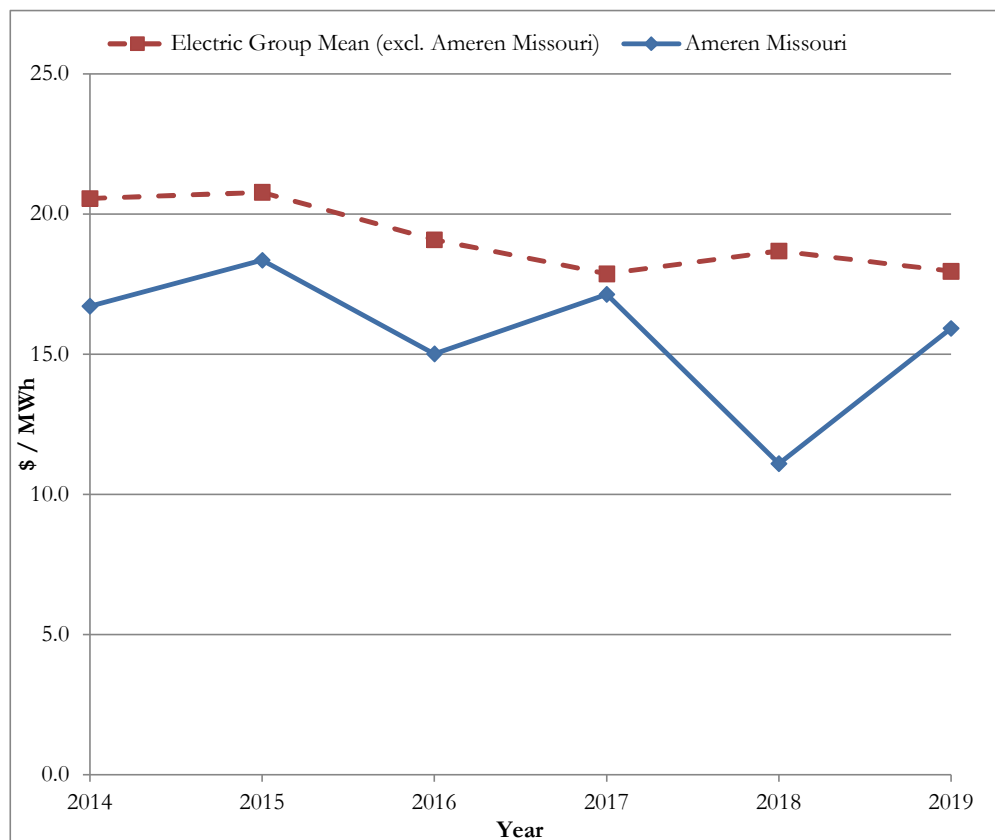


<b>Non-Fuel Production O&amp;M per MWh Produced (Excluding Nuclear)</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	4.70	4.88	5.34	4.62	5.60	6.58
Electric Group Mean (excl. Ameren Missouri)	8.55	9.22	9.60	9.67	9.87	9.82
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	1	2	2	2	4	5
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total Power Production O&M Expenses excluding Nuclear, less Fuel, Purchased Power, and Other Expenses; Total Net Generation excl Nuclear

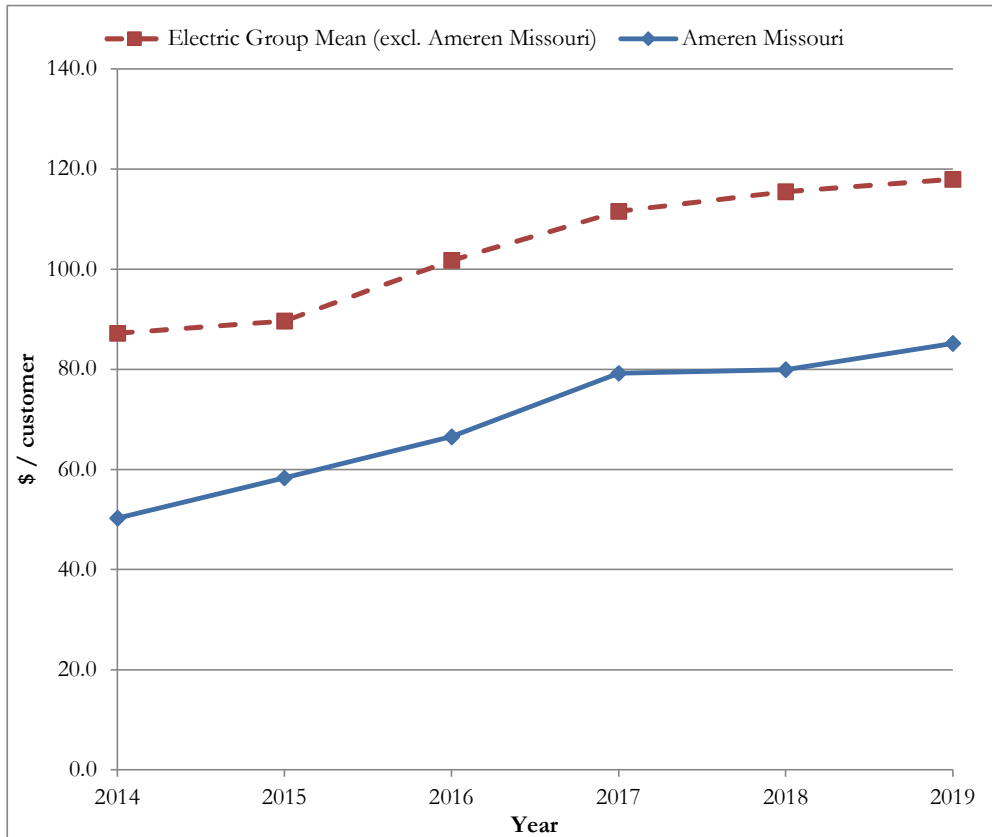
## Non-Fuel Nuclear Production O&M per Nuclear MWh Produced Cost Efficiency



Non-Fuel Nuclear Production O&M per Nuclear MWh Produced						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	16.7	18.4	15.0	17.1	11.1	15.9
Electric Group Mean (excl. Ameren Missouri)	20.6	20.8	19.1	17.9	18.7	18.0
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	4	3	1	4	1	2
Total Ranked	8	8	8	8	8	8

Source: SNL Interactive, FERC Form 1  
Non-Fuel Nuclear O&M less Fuel Expenses; Nuclear Generation (MWh)

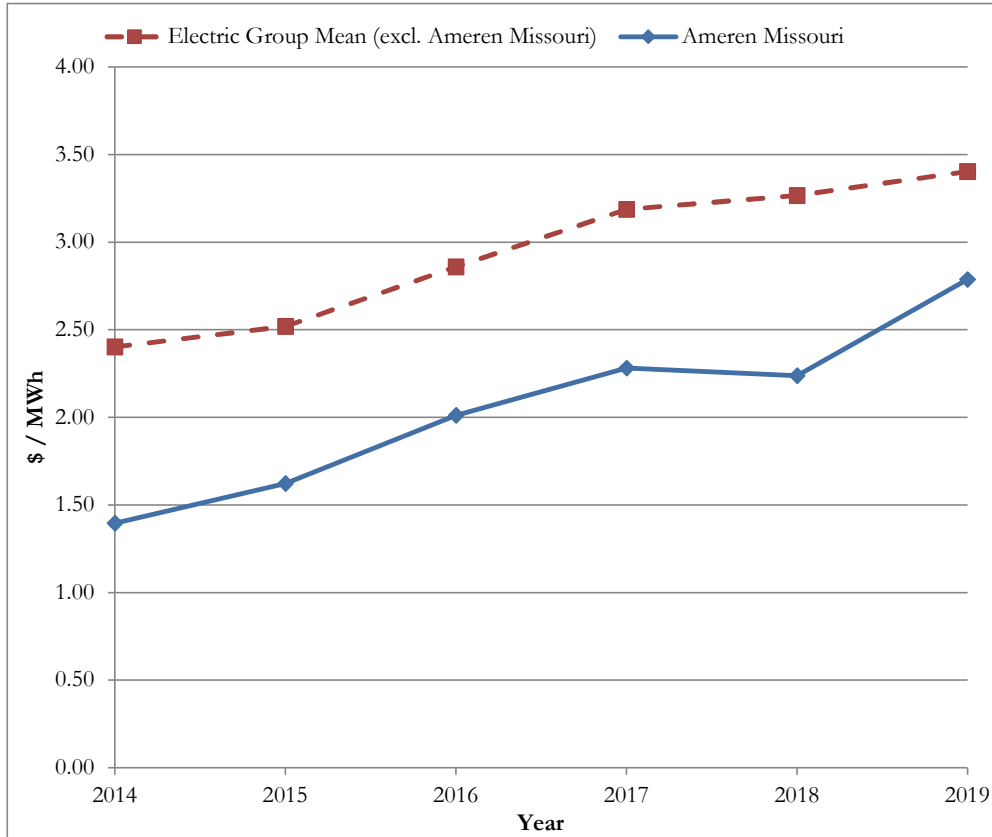
## Transmission O&M per Customer Cost Efficiency



<b>Transmission O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	50.3	58.3	66.6	79.2	80.0	85.2
Electric Group Mean (excl. Ameren Missouri)	87.2	89.6	101.7	111.5	115.5	118.0
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	5	8	10	11	10	10
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electric Customers

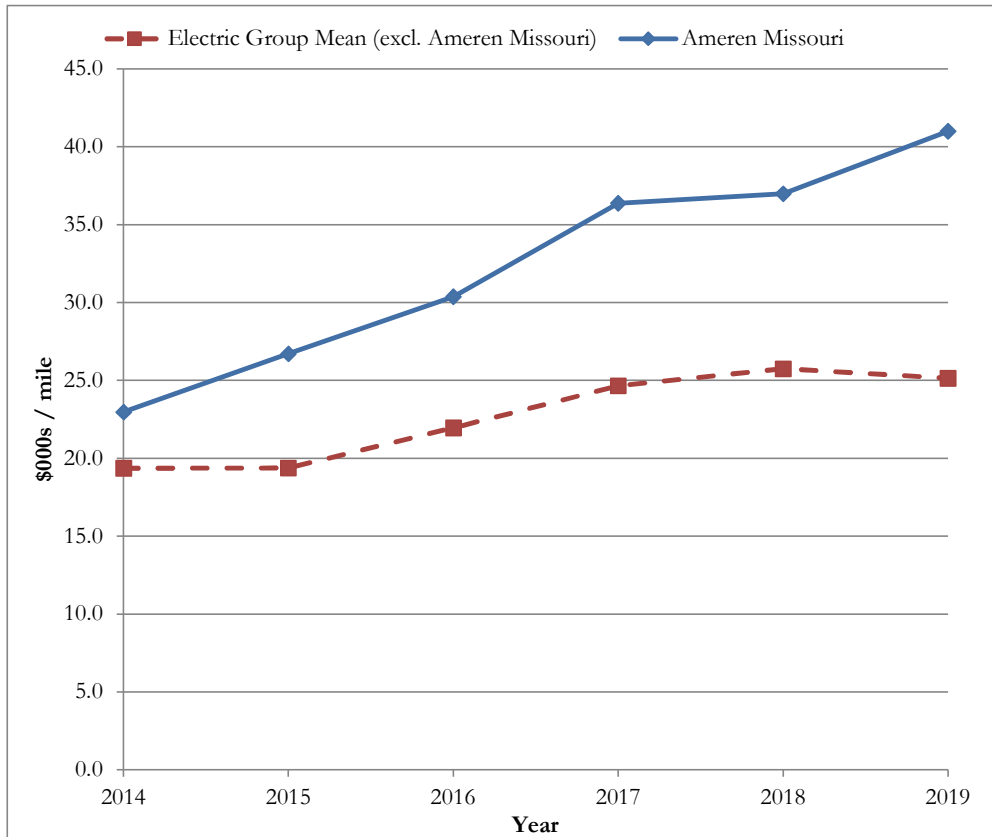
## Transmission O&M per MWh Cost Efficiency



<b>Transmission O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	1.40	1.62	2.01	2.28	2.24	2.79
Electric Group Mean (excl. Ameren Missouri)	2.40	2.52	2.86	3.19	3.27	3.40
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	8	8	9	8	8	10
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electricity Sales Vol

## Transmission O&M per Mile of Transmission Line Cost Efficiency

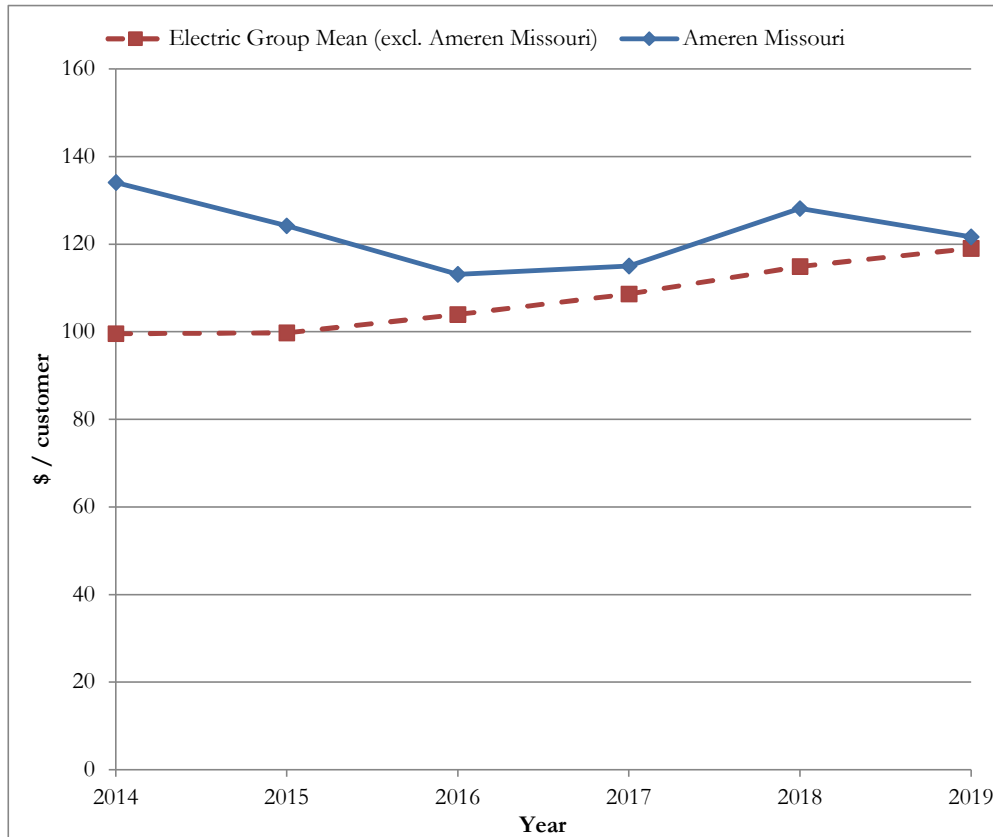


<b>Transmission O&amp;M per Mile of Transmission Line</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	23.0	26.7	30.4	36.4	37.0	41.0
Electric Group Mean (excl. Ameren Missouri)	19.4	19.4	22.0	24.7	25.8	25.1
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	17	18	16	17	17	16
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp (\$000); Length of Transmission Lines (Miles)



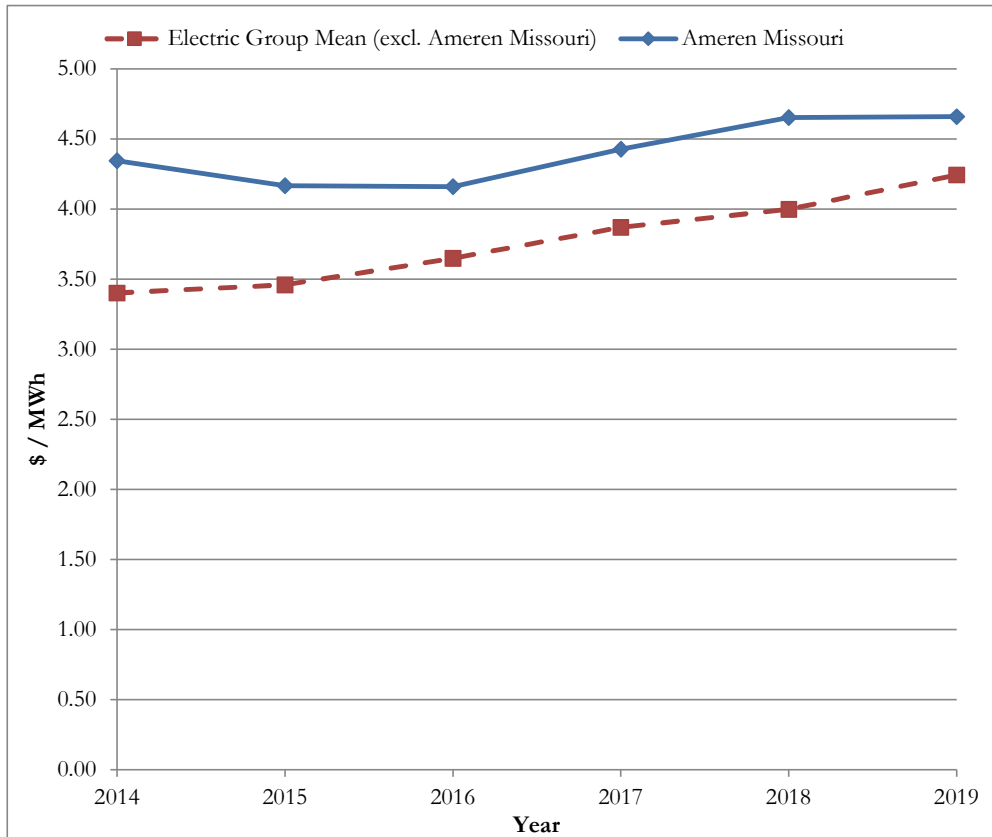
## Distribution O&M per Customer Cost Efficiency



<b>Distribution O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	134	124	113	115	128	122
Electric Group Mean (excl. Ameren Missouri)	100	100	104	109	115	119
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	20	18	14	13	14	12
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Ult Consumer Electric Customers

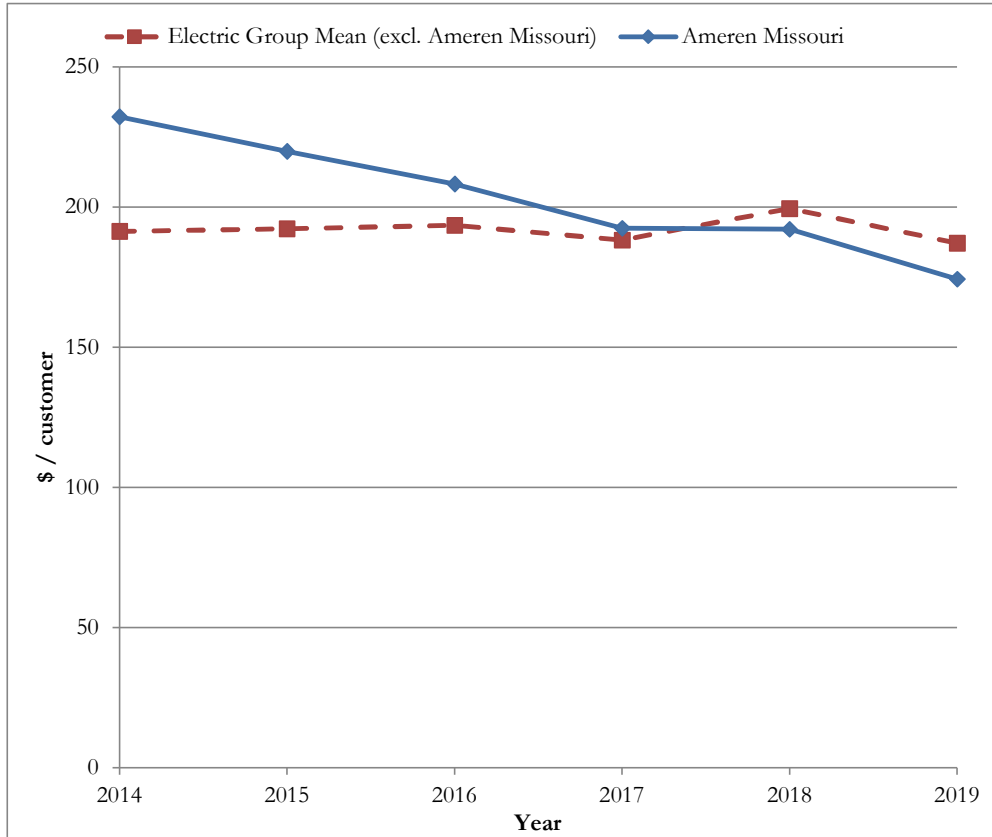
### Distribution O&M per MWh Cost Efficiency



<b>Distribution O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	4.35	4.17	4.16	4.43	4.65	4.66
Electric Group Mean (excl. Ameren Missouri)	3.40	3.46	3.65	3.87	4.00	4.24
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	20	18	17	16	18	15
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

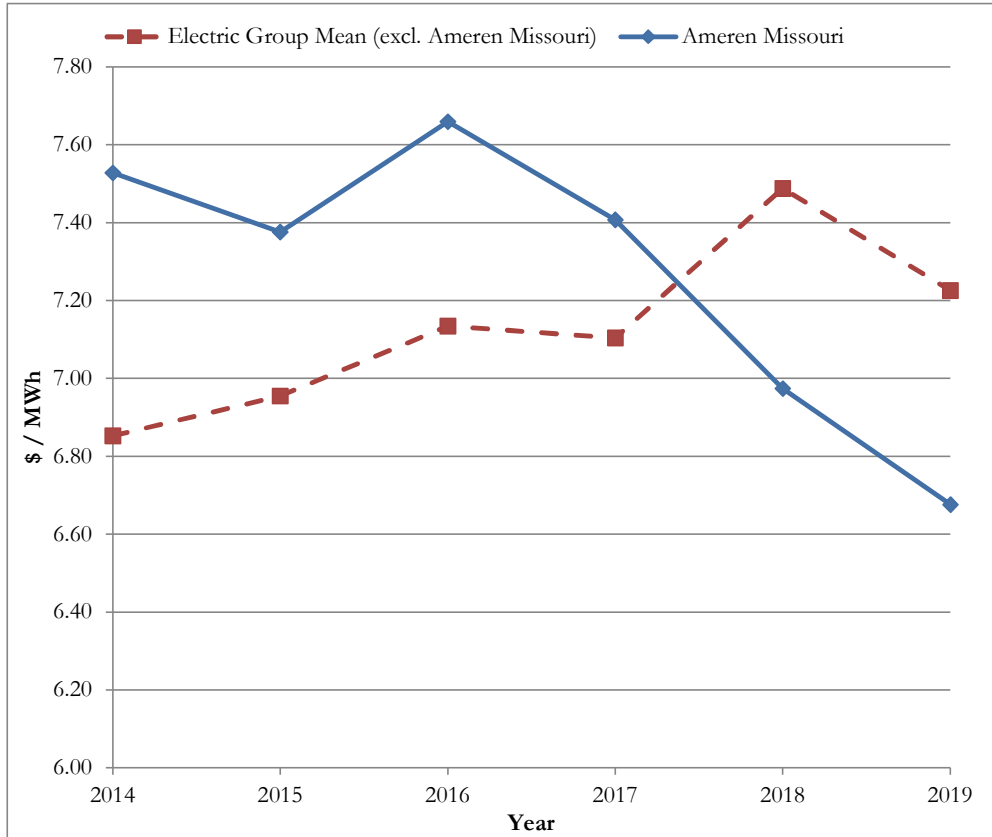
## A&G Expense per Customer Cost Efficiency



<b>A&amp;G Expense per Customer</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	232	220	208	193	192	174
Electric Group Mean (excl. Ameren Missouri)	191	192	193	188	199	187
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	15	14	14	12	10	10
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Ult Consumer Electric Customers

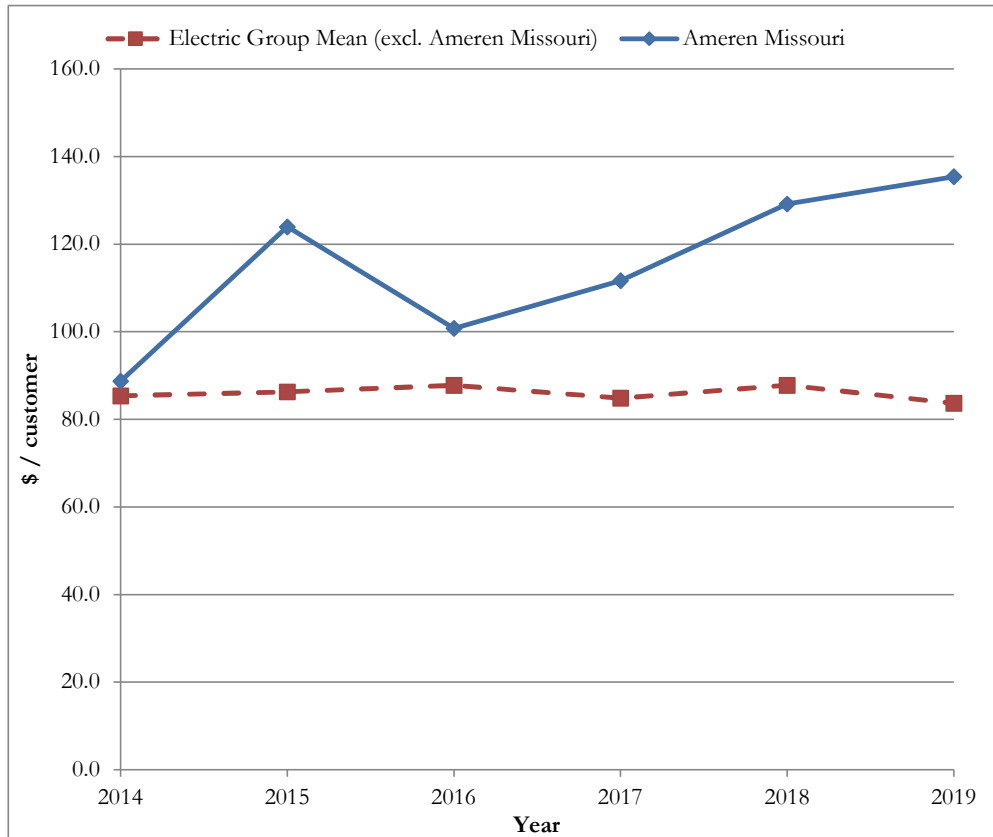
### A&G Expense per MWh Cost Efficiency



<b>A&amp;G Expense per MWh</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	7.53	7.38	7.66	7.41	6.97	6.68
Electric Group Mean (excl. Ameren Missouri)	6.85	6.96	7.13	7.10	7.49	7.23
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	15	14	14	14	12	12
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## Customer Expense per Customer Cost Efficiency

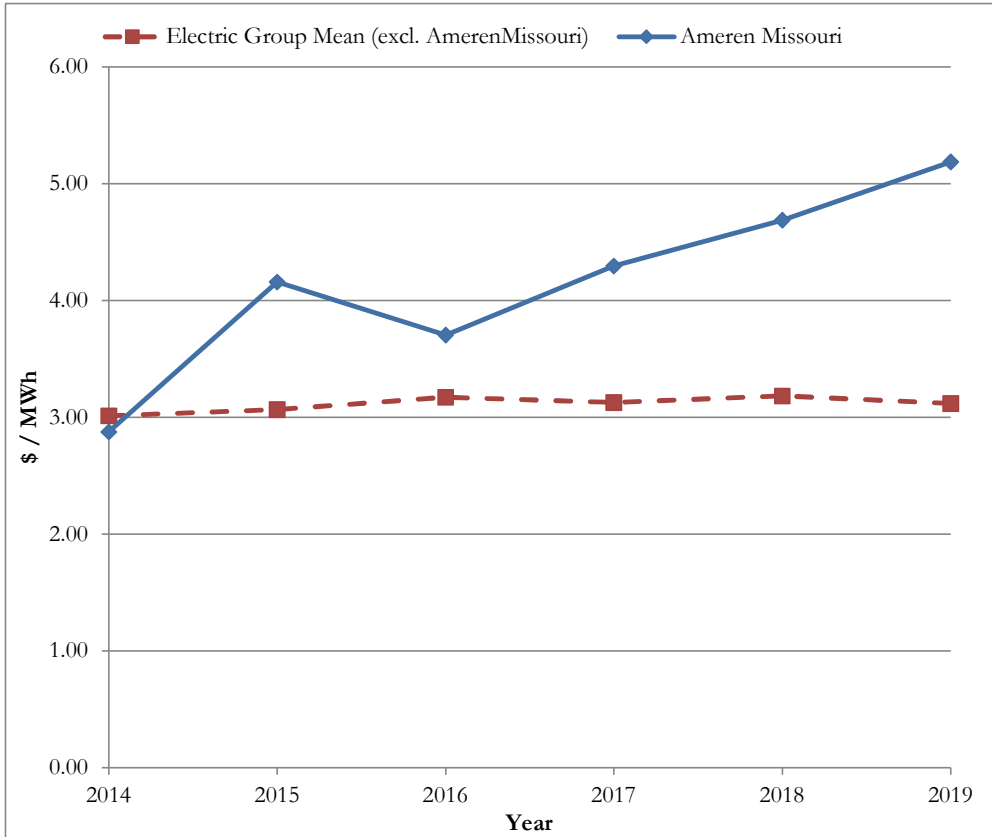


Customer Expense per Customer						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	88.7	124.0	100.8	111.7	129.1	135.4
Electric Group Mean (excl. Ameren Missouri)	85.4	86.2	87.8	84.8	87.8	83.7
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	11	20	15	18	20	20
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Ult Consumer Electric Customers

## Customer Expense per MWh Cost Efficiency



<b>Customer Expense per MWh</b>						
<i>Annual Values</i>						
	2014	2015	2016	2017	2018	2019
Ameren Missouri	2.88	4.16	3.71	4.30	4.69	5.19
Electric Group Mean (excl. Ameren Missouri)	3.01	3.07	3.17	3.13	3.18	3.12
<i>Rankings</i>						
	2014	2015	2016	2017	2018	2019
Electric Group:						
Ameren Missouri	13	17	12	17	19	21
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

Exhibit No.:  
Issue(s): Affiliate Transactions  
Witness: John J. Reed  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric  
Company  
File No.: ER-2022-0337  
Date Testimony Prepared: August 1, 2022

**DIRECT TESTIMONY**  
**OF**  
**JOHN J. REED**  
**ON BEHALF OF**  
**UNION ELECTRIC COMPANY**  
**d/b/a AMEREN MISSOURI**

**August 1, 2022**

**EXHIBIT C**

- 1           • AMS provides these services on a zero-profit basis which no other provider could do  
2           on a sustainable basis;
- 3           • AMS provides these services to all of Ameren Missouri’s regulated affiliates and no  
4           regulator has, to date, found these costs to be unreasonable or imprudently incurred;
- 5           • AMS uses benchmarking to ensure that its costs are market-based and uses competitive  
6           bidding in accordance with corporate policies for procurement; and
- 7           • Ameren Missouri can, if it so chooses, reduce the services it takes from AMS in given  
8           areas and either self-provide a service or obtain it elsewhere.

9       Simply put, these facts provide a very compelling case that selecting AMS as the service provider  
10      is not only a reasonable decision, but also the best decision that the Company can make. This  
11      decision by Ameren Missouri is unquestionably prudent.

12                                   **VI.     HISTORICAL COST ANALYSIS**

13      **Q.     Have you prepared an analysis of how Ameren Missouri’s customers have benefited**  
14      **from the formation of AMS?**

15      A.     Yes. An analysis of Ameren Missouri’s administrative and general (“A&G”) expense  
16      levels from 1999 to 2021 was prepared to determine if its customers have benefited from  
17      the formation of AMS concurrent with the merger of CIPS, CILCO and IP. In 2021, 92%  
18      of the operation and maintenance expense dollars allocated to the Ameren Missouri electric  
19      distribution business from AMS included within revenue requirement were booked to  
20      administrative and general expenses.

21      **Q.     Please explain the analysis.**

22      A.     Starting with data from 1990, the reported A&G expense levels were collected as reported  
23      in FERC Form 1s. As previously mentioned, UE & CIPS merged in 1997. From that point



1 forward, the historical actual expense levels were escalated using the gross domestic  
2 product implicit price deflator for each year through 2021.

3 The same analysis was performed for the acquisition of CILCO in 2003 and Illinois Power  
4 in 2004.

5 As shown in Schedule JJR-D3, the A&G cost levels for the merged companies are  
6 consistently lower than the sum of the individual stand-alone operating companies'  
7 escalated A&G expense levels. This indicates that the merged companies' costs, including  
8 AMS' allocated costs, are lower than they would likely have been absent the mergers.

9 **Q. Have you also performed an assessment of Ameren Missouri's costs compared to**  
10 **those of similar utilities?**

11 A. Yes. I updated the benchmarking analysis performed in File Nos. ER-2019-0335 and ER-  
12 2021-0240 to include an analysis through 2021. I compared Ameren Missouri's total non-  
13 fuel operations and maintenance ("O&M") expense and A&G expense against three peer  
14 groups:

15 1. National Electric Utilities with regulated generation and greater than 50,000  
16 customers;

17 2. Midwest Electric Utilities with regulated generation and greater than 50,000  
18 customers; and

19 3. National Electric Utilities with regulated generation and 500,000 to 2,000,000  
20 customers.

21 **Q. What years did the benchmarking analyses review?**

1 A. The six most recent years for which data were available (i.e., 2016-2021) were used to  
2 perform the analyses. This represents the years reviewed in File No. ER-2019-0335 and  
3 File No. ER-2021-0240 updated with current data and 2021 added to the analyses.

4 **Q. What was the source of the data used to perform the benchmarking analyses?**

5 A. The analyses utilized data obtained from the S&P Global Market Intelligence platform.  
6 The source of the data was the annual FERC Form 1 filings made by electric utilities.

7 **Q. Did you make any adjustments to the source data?**

8 A. No.

9 **Q. How did you normalize the benchmarking analyses to account for differences in the  
10 size of the utilities?**

11 A. To normalize issues related to the size of the companies in the comparison, all costs were  
12 evaluated on a per customer basis.

13 **Q. How did Ameren Missouri compare to its peers when reviewing total non-fuel O&M  
14 cost per customer of the national electric utilities with regulated generation peer  
15 group?<sup>4</sup>**

16 A. As shown on Schedule JJR-D4, Ameren Missouri has had below (i.e., better than) the  
17 national average non-fuel O&M costs in all six years analyzed. Ameren Missouri's total  
18 non-fuel O&M cost per customer was 10.8% below the national average in 2021.

19 **Q. How did Ameren Missouri compare to its peers when reviewing just the A&G portion  
20 of these O&M expenses on a per customer basis?**

21 A. As shown on Schedule JJR-D5, Ameren Missouri's A&G expense per customer has shown  
22 a dramatic improvement on both an absolute and relative basis over the past six years. In

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<sup>4</sup> Additionally, peer group included criteria that companies must have greater than 50,000 customers.

1 2016, Ameren Missouri's A&G cost per customer was 3.7% below the national average,  
2 and by 2021 they were 29.3% below the national average.

3 **Q. Is it possible that these results are biased by the inclusion of higher-cost utilities on**  
4 **the east and west coasts, as opposed to Midwestern utilities?**

5 A. No, in fact Ameren Missouri's costs are even more competitive when compared to Midwest  
6 utilities.<sup>5</sup> As shown on Schedule JJR-D6, Ameren Missouri posted results that were 24.8%  
7 below the average for Midwest utilities for total non-fuel O&M costs in 2021 and has been  
8 considerably below the regional average each year analyzed. On this basis of comparison,  
9 Ameren Missouri is a top performer.

10 **Q. How did Ameren Missouri compare to its Midwest peers when reviewing A&G**  
11 **expense per customer?**

12 A. As shown on Schedule JJR-D7, Ameren Missouri's A&G cost per customer was more than  
13 37% below the regional average in 2021, and its performance advantage over its peers had  
14 been widening over the past six years.

15 **Q. When the comparisons are limited to the larger utilities, which presumably have**  
16 **economies of scale as AMS has been able to achieve, how does Ameren Missouri**  
17 **compare to the national averages?**

18 A. As shown on Schedule JJR-D8, when compared to national electric utilities with regulated  
19 generation and between 500,000 and 2 million customers, Ameren Missouri achieved  
20 slightly lower-than-average cost levels for total non-fuel O&M in 2021 and has achieved  
21 lower-than-average cost levels for total non-fuel O&M each year since 2016. Even when

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<sup>5</sup> Additionally, peer group included criteria that companies must have greater than 50,000 customers.

1 compared to the smaller subset of 21 other large utilities, Ameren Missouri is performing  
2 well.

3 **Q. When compared to the larger companies, how did Ameren Missouri look for just the**  
4 **A&G portion of O&M expense?**

5 A. As shown on Schedule JJR-D9, Ameren Missouri improved its A&G cost per customer in  
6 each year examined, while the peer group average remained consistent during the same  
7 period. In 2021, Ameren Missouri's A&G cost per customer was below the large company  
8 peer group average by 17.3%.

9 **Q. What can be concluded from the results of these analyses?**

10 A. As a result of the mergers of Union Electric, CIPS, CILCO, and IP, the Company has been  
11 able to drive down costs of the businesses. The source of reduced costs is from the  
12 consolidation of common corporate and A&G functions which now reside at AMS. These  
13 savings result from the elimination of duplicative positions (e.g., a CEO and CFO and  
14 Treasurer at each operating company, multiple CIOs, multiple General Counsels, etc.) as  
15 well as economies of scale attributable to the provisioning of services by a smaller number  
16 of employees than the four individual companies could have achieved separately. In  
17 addition, AMS and Ameren Missouri engage in continuous improvement efforts that  
18 should be expected to contribute to bringing down Ameren Missouri's largest measure of  
19 controllable cost, Total Non-Fuel O&M per customer, which is in fact well below the peer  
20 group average levels for all three of the peer groups I have examined. The numbers indicate  
21 that these efforts have delivered significant savings for customers, while maintaining  
22 compensation at competitive levels for employees working at AMC subsidiaries.

23 **Q. Have you expanded the benchmarking?**

1 A. Yes. I have done some additional benchmarking to further assess Ameren Missouri's  
2 financial and operational performance.

3 **Q. In general, what steps did you take in constructing this additional benchmarking**  
4 **analysis?**

5 A. The first step of the benchmarking analysis was to define the timeframe over which the  
6 analysis was to be performed. The second step was to develop the composition of the peer  
7 group used to compare to Ameren Missouri. The third step was to define the financial and  
8 operational metrics to be used in the benchmarking and to collect the necessary data to  
9 evaluate these metrics.

10 **Q. How did you select the companies to include in your benchmarking peer group?**

11 A. My objective in determining the peer group was to achieve the largest group of companies  
12 for which consistent data were available and which were, broadly speaking, operationally  
13 similar to Ameren Missouri. Because Ameren Missouri is a large primarily electric utility  
14 with ownership in generating resources, I established a peer group of companies with  
15 electric-only utility operations that have between 500,000 and 2 million customers and own  
16 generating resources. This produced a peer group of 21 comparable companies.

17 **Q. What data sources did you rely on for the performance metrics that you developed?**

18 A. I obtained much of the data from FERC Form 1 and U.S. Securities and Exchange  
19 Commission ("SEC") Form 10-K reports (as reported by S&P Cap IQ Pro).

20 **Q. What metrics did you use to assess Ameren Missouri's financial and operational**  
21 **performance?**

22 A. I evaluated Ameren Missouri's performance across a variety of financial and operational  
23 metrics to evaluate the Company's cost efficiency.

1 Regarding cost efficiency – the ability to maximize output and minimize costs, I considered  
2 expense performance metrics:

- 3 • **Total Non-Fuel O&M expenses**
- 4 • **Non-Fuel Production O&M expenses**
- 5 • **Transmission O&M expenses**
- 6 • **Distribution O&M expenses**
- 7 • **Administrative and General (“A&G”) expenses**
- 8 • **Customer expenses**

9 **Q. Did the metrics account for companies of different sizes?**

10 A. Yes. Most metrics are calculated on an expense per customer or an expense per MWh sold  
11 basis.

12 **Q. Have you provided the results of the expense performance metrics?**

13 A. Yes. Schedule JJR-D10 thru Schedule JJR-D23 provides the results of each of the expense  
14 performance metrics listed above.

15 **Q. Overall how did Ameren Missouri compare to its peers in regards to the expense  
16 performance metrics?**

17 A. In reviewing the four primary operating functions (generation, transmission, distribution,  
18 and customer service), and administrative and general expenses, Ameren Missouri is a  
19 strong performer in controlling its expenses per customer. Ameren Missouri was below  
20 the peer group mean in every year of the analysis for Non-Fuel Production O&M expenses  
21 per customer and Transmission O&M expenses per customer. Ameren Missouri was below  
22 the peer group mean for the first 5 years of the analysis for Non-Fuel Nuclear Production  
23 O&M per Nuclear MWh Produced, but this expense was above the peer group mean in

1 2021. This atypical increase in 2021 was due to the shutdown of the Callaway Energy  
2 Center Nuclear Plant for several months.<sup>6</sup> While Ameren Missouri was above the group  
3 mean in every year of the analysis for Distribution O&M expenses per customer, its ranking  
4 has stayed relatively consistent over each year examined. Ameren Missouri was below the  
5 peer group mean in Administrative and General expenses per customer in 2018, 2019,  
6 2020, and 2021 and Ameren Missouri improved its A&G cost per customer in each year  
7 examined, while the peer group average remained consistent during the same period.

8 **Q. Which metrics provide the best indication of Ameren Missouri's overall performance**  
9 **relative to the peer groups?**

10 A. While each metric is significant and may help identify particular areas of strength or  
11 weakness, the best indication of Ameren Missouri's overall level of performance in terms  
12 of cost control, which also provides a good indication of the reasonableness of AMS costs  
13 since it provides significant services to Ameren Missouri, is Total Non-Fuel O&M  
14 expenses per customer. This category covers all four primary operating functions  
15 (generation, transmission, distribution, and customer service), and includes all  
16 administrative and general functions which, as noted, make up nearly all AMS costs.  
17 Further, this metric has the advantage of removing the effects of differences in fuel costs,  
18 which can vary due to availability, location, and state or local environmental policies.

19 **Q. Please discuss how Ameren Missouri compares to its peers in regards to the Total**  
20 **Non-Fuel O&M expense metric.**

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<sup>6</sup> Since the denominator of this metric is the annual nuclear MWh produced, the decrease in production caused by a plant shut down for part of the year causes this total metric to increase in that year. Ameren Missouri's Callaway Energy Center shut down in December 2020 as a result of an equipment failure. The plant was back online in August of 2021.

1 A. Ameren Missouri’s performance in controlling its non-fuel O&M expense per customer  
2 and per MWh sold is strong in each year of my analysis, coming in below the peer group  
3 average in each year examined in the per customer analysis and right around the peer group  
4 average for each year in the per MWh sold analysis.

5 **VII. ADDITIONAL INFORMATION BEING PROVIDED BY AMEREN**

6 **MISSOURI**

7 **Q. In your direct testimony in Ameren Missouri’s last electric rate case you summarized**  
8 **information concerning affiliate transactions that Ameren Missouri agreed to provide**  
9 **per the Second Stipulation in that case, File No. ER-2019-0335. Is Ameren Missouri**  
10 **submitting that information in this case?**

11 A. Yes. While the obligation under the Stipulation has been fulfilled, Ameren Missouri is  
12 again providing that information in this case. The information being provided is listed in  
13 Schedule JJR-D24, together with an explanation of how the information is being provided  
14 and my comments on some of the items, as appropriate.

15 **VIII. CONCLUSIONS**

16 **Q. Based upon your review of AMS and the services that it provides to its affiliated**  
17 **companies, what are your observations and conclusions?**

18 A. My observations and conclusions are as follows:

- 19 • The use of a shared services organizations, such as AMS, is reasonable and consistent  
20 with utility industry practices and its use by Ameren Missouri for the services provided  
21 in the test year was prudent and reasonable;
- 22 • The scope of services offered by AMS to its affiliated companies is consistent with  
23 other utility shared services companies with which I am familiar;



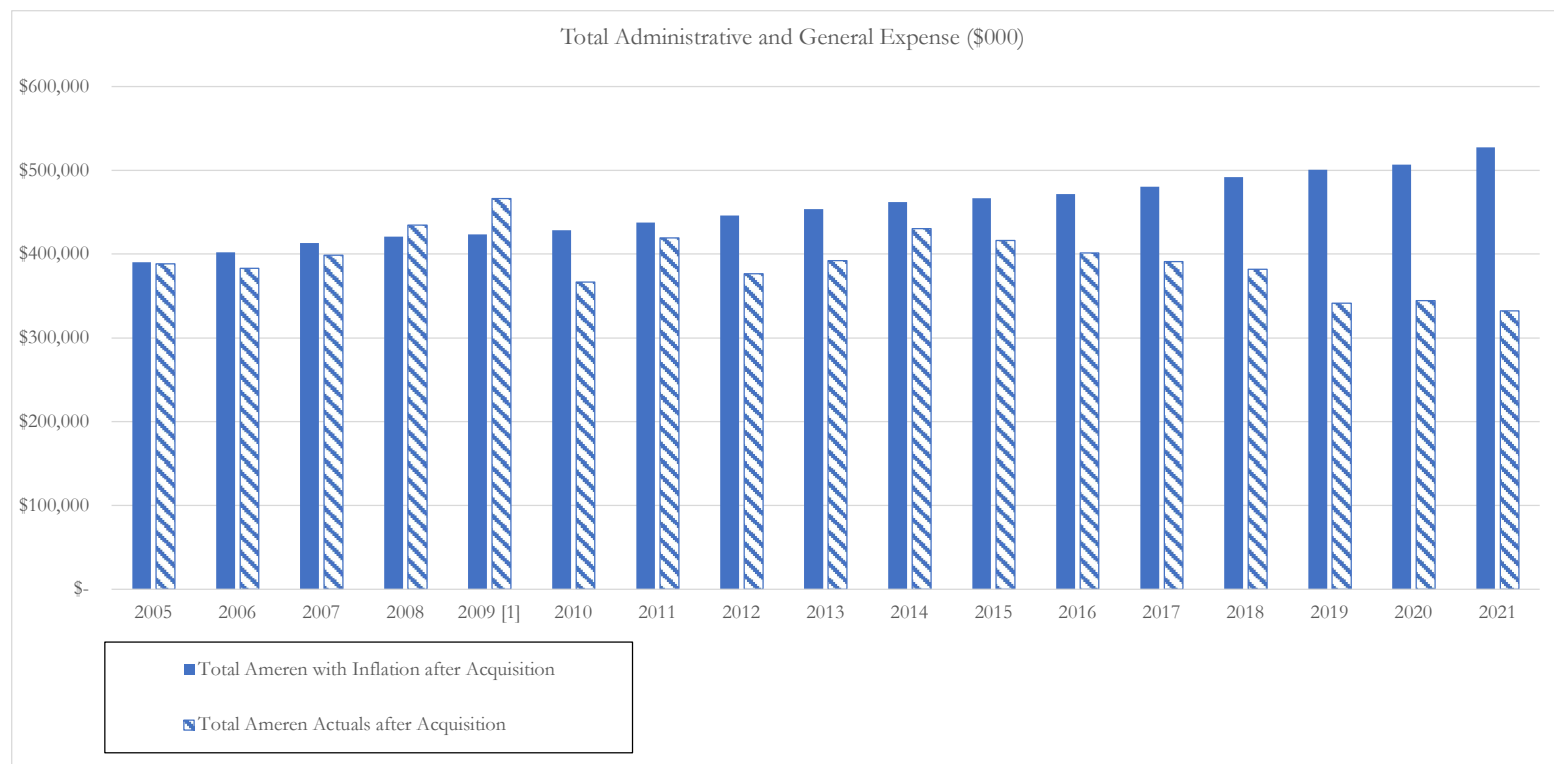
Administrative and General Expense Detailed Analysis

**Total Administrative and General (\$000)**

<b>Inflated after Acquisition</b>																	
	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Union Electric	234,223	241,457	247,981	252,758	254,365	257,413	262,765	267,684	272,366	277,455	280,241	283,045	288,412	295,305	300,588	304,182	316,788
CIPS (merger completed 12/31/1997)	77,672	80,071	82,234	83,819	84,351	85,362	87,137	88,768	90,321	92,008	92,933	93,862	95,642	97,928	99,680	100,872	105,052
CILCO (acquisition closed 1/31/2003)	27,078	27,914	28,668	29,220	29,406	29,758	30,377	30,946	31,487	32,075	32,398	32,722	33,342	34,139	34,750	35,165	36,622
IP (acquisition closed 9/30/2004)	51,155	52,735	54,160	55,203	55,554	56,220	57,389	58,463	59,486	60,597	61,206	61,818	62,990	64,496	65,650	66,435	69,188
<b>Total Ameren with Inflation after Acquisition</b>	<b>390,128</b>	<b>402,178</b>	<b>413,044</b>	<b>421,000</b>	<b>423,676</b>	<b>428,754</b>	<b>437,669</b>	<b>445,862</b>	<b>453,660</b>	<b>462,136</b>	<b>466,777</b>	<b>471,447</b>	<b>480,386</b>	<b>491,868</b>	<b>500,667</b>	<b>506,654</b>	<b>527,650</b>

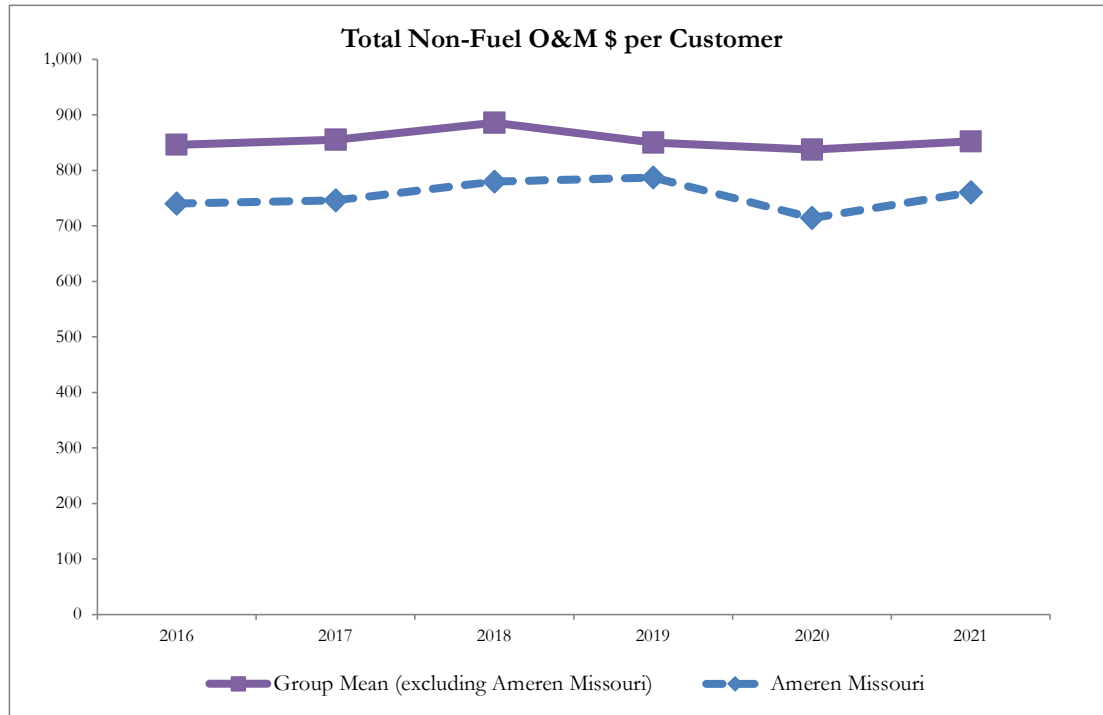
<b>Actuals</b>																	
	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Union Electric	243,224	245,282	265,020	272,687	250,628	240,384	275,201	236,903	251,904	278,701	264,623	251,783	234,050	235,012	214,437	204,068	192,583
CIPS (merger completed 12/31/1997)	41,305	39,765	39,944	47,871	40,468												
CILCO (acquisition closed 1/31/2003)	36,057	30,052	32,037	27,610	97,824												
IP (acquisition closed 9/30/2004)	67,543	67,716	61,571	86,449	77,172												
Ameren Illinois						126,171	143,958	139,418	140,454	151,672	151,661	149,707	157,181	146,610	126,801	140,380	139,515
<b>Total Ameren Actuals after Acquisition</b>	<b>388,129</b>	<b>382,815</b>	<b>398,572</b>	<b>434,617</b>	<b>466,092</b>	<b>366,555</b>	<b>419,159</b>	<b>376,321</b>	<b>392,358</b>	<b>430,373</b>	<b>416,284</b>	<b>401,490</b>	<b>391,231</b>	<b>381,622</b>	<b>341,238</b>	<b>344,448</b>	<b>332,099</b>



**NOTES**

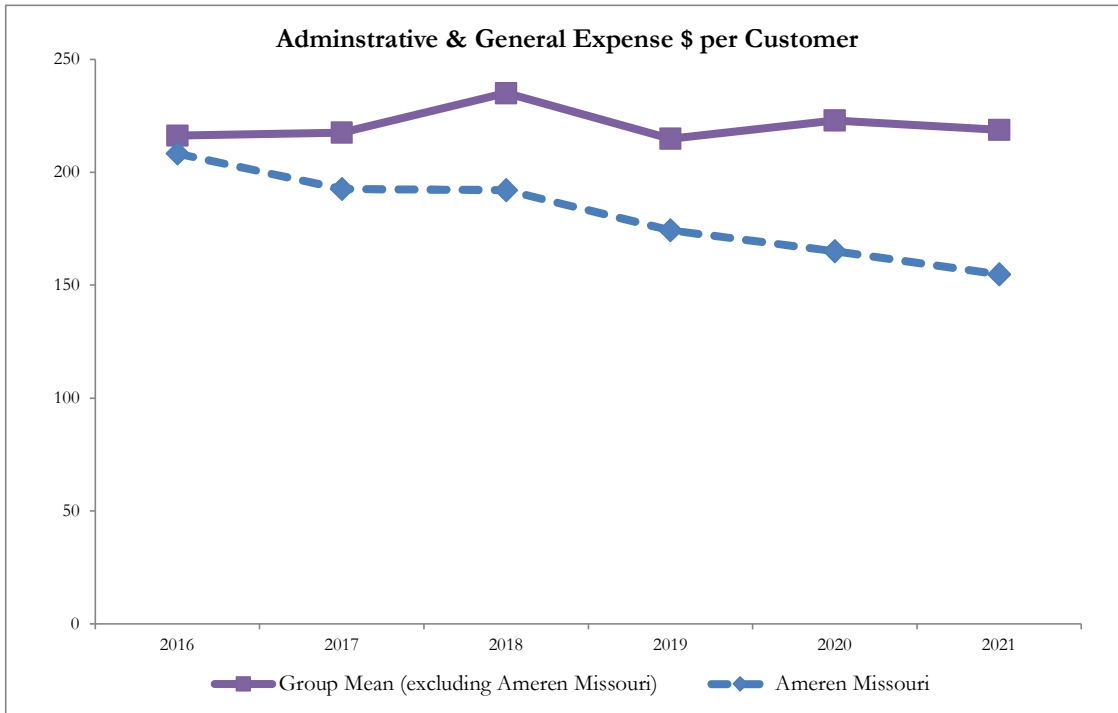
[1] Amount for CILCO in 2009 ties to the Form 1 which includes \$57,483 of intercompany billings recorded in account 921. In the Company's filing in Docket #12-0001, that amount was excluded.

**National Electric Utilities With Regulated Generation, >50k Customers**



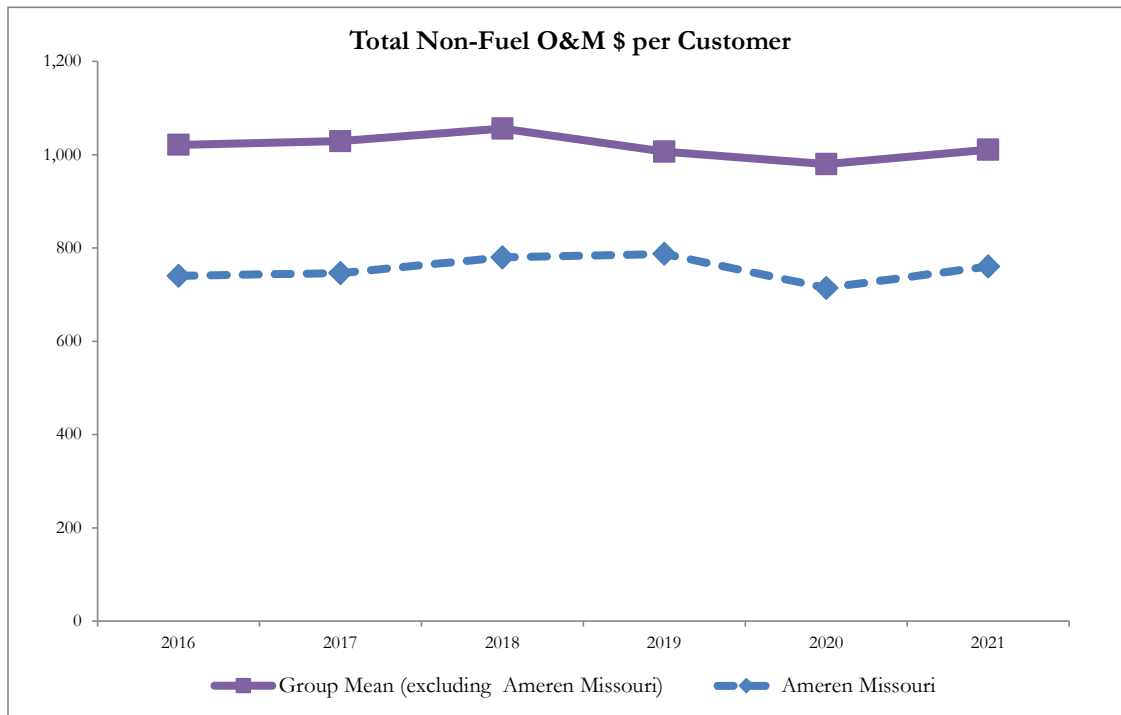
Total Non-Fuel O&M \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Group Mean (excluding Ameren Missouri)	846	855	886	850	837	852
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	16	17	19	21	17	18
Quartile	2	2	2	2	2	2
Total Ranked	47	47	47	47	47	47

**National Electric Utilities With Regulated Generation, >50k Customers**



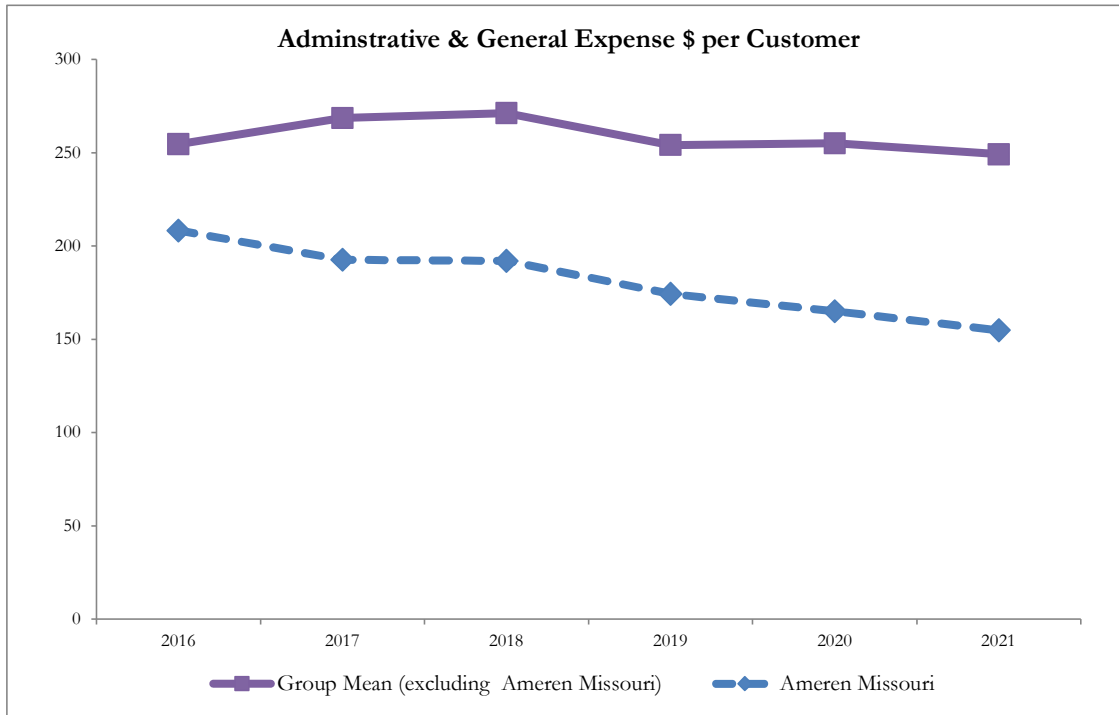
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Group Mean (excluding Ameren Missouri)	216	218	235	215	223	219
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	27	24	20	19	17	14
Quartile	3	3	2	2	2	2
Total Ranked	47	47	47	47	47	47

**Midwest Electric Utilities With Regulated Generation, >50k Customers**



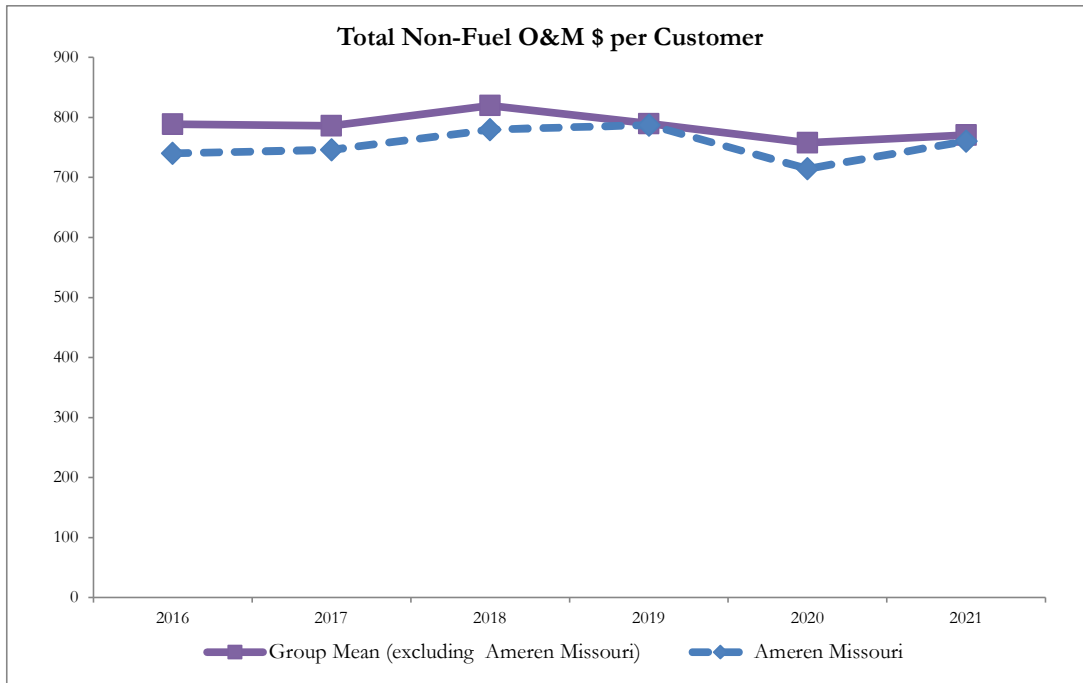
Total Non-Fuel O&M \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Group Mean (excluding Ameren Missouri)	1,021	1,029	1,056	1,006	980	1,010
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Midwest Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	1	1	3	3	2	3
Quartile	1	1	1	1	1	1
Total Ranked	16	17	17	17	17	17

**Midwest Electric Utilities With Regulated Generation, >50k Customers**



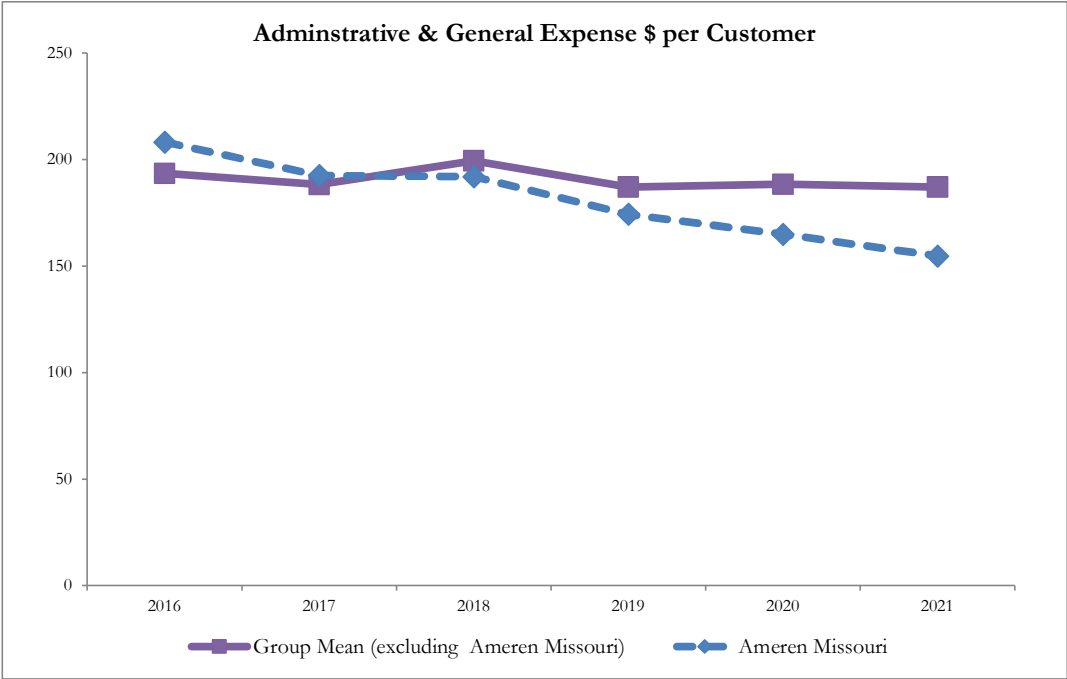
<b>Adminstrative &amp; General Expense \$ per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Group Mean (excluding Ameren Missouri)	255	269	271	254	255	249
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Midwest Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	7	5	5	5	5	3
Quartile	2	2	2	2	2	1
Total Ranked	16	17	17	17	17	17

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



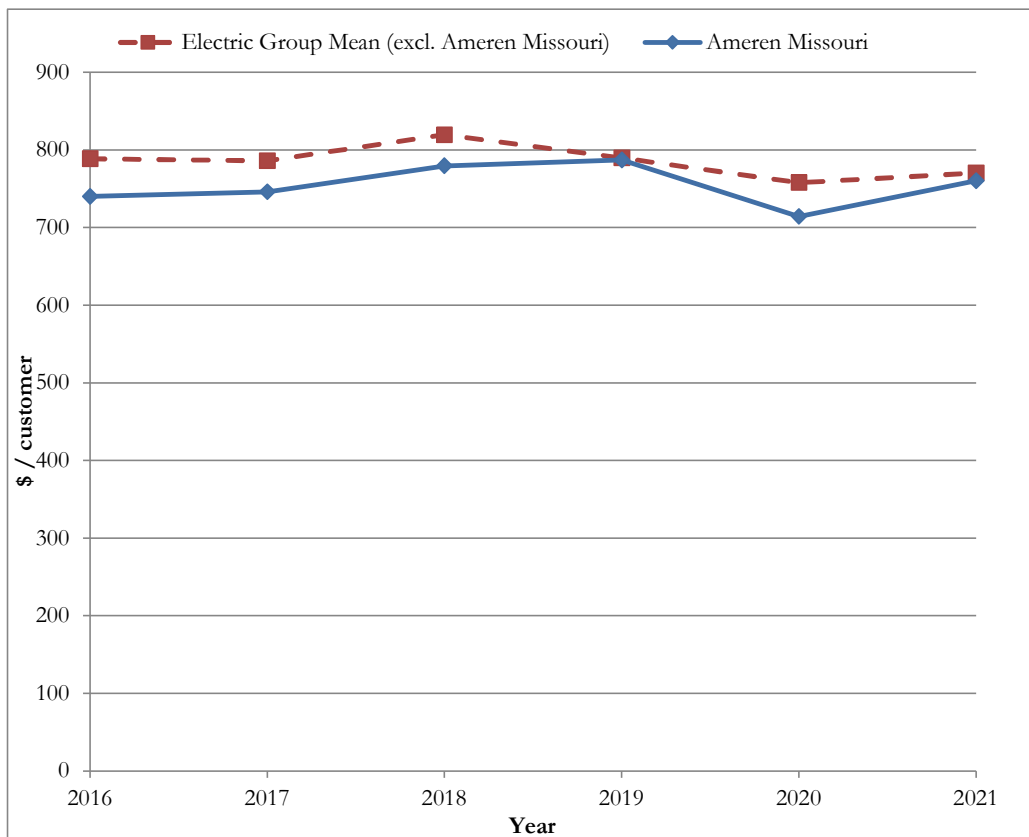
<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Group Mean (excluding Ameren Missouri)	789	786	820	790	758	770
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	9	8	10	11	9	9
Quartile	2	2	2	3	2	2
Total Ranked	21	21	21	21	21	21

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Group Mean (excluding Ameren Missouri)	193	188	199	187	188	187
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	14	12	10	10	10	8
Quartile	3	3	2	2	2	2
Total Ranked	21	21	21	21	21	21

## Total Non-Fuel O&M per Customer Cost Efficiency



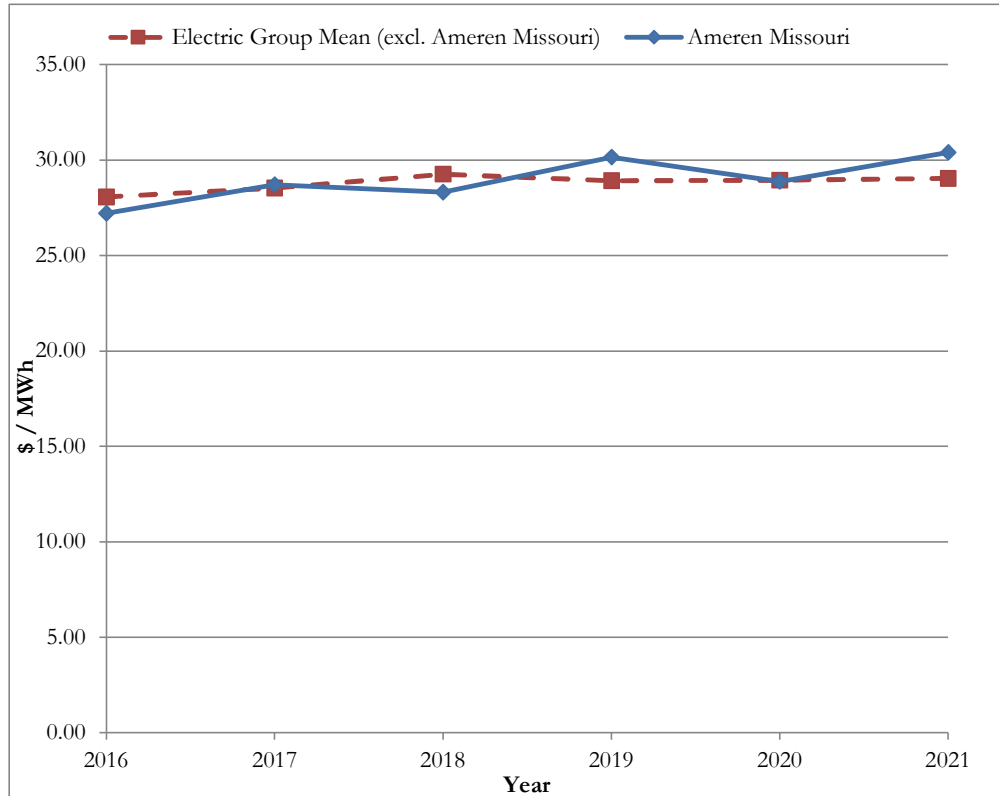
<b>Total Non-Fuel O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Electric Group Mean (excl. Ameren Missouri)	789	786	820	790	758	770
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	9	8	10	11	9	9
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Ult Consumer Electric Customers



## Total Non-Fuel O&M per MWh Sold Cost Efficiency

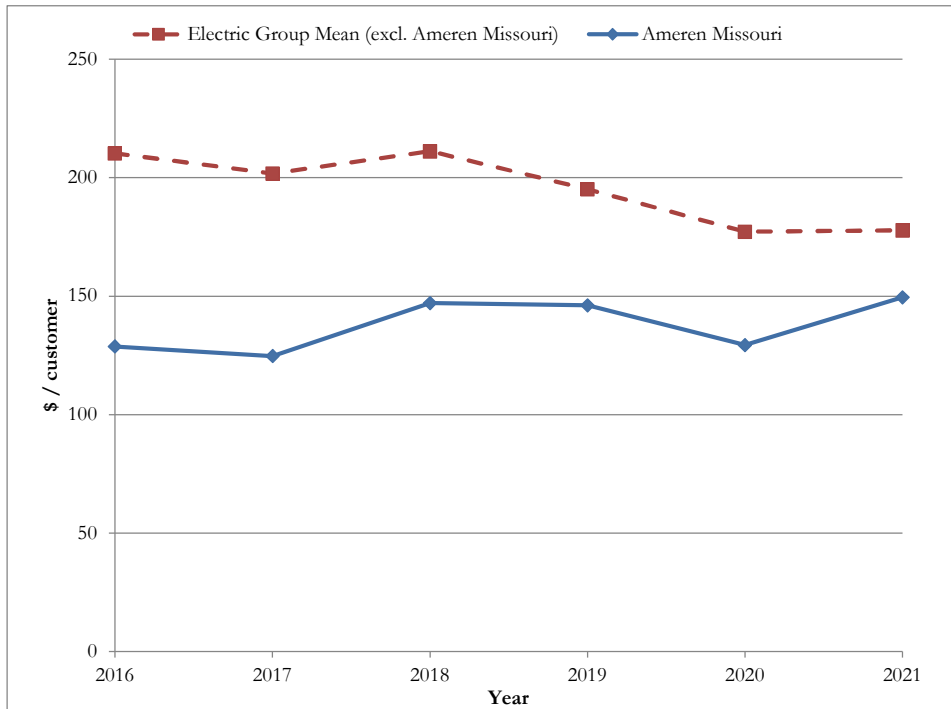


<b>Total Non-Fuel O&amp;M per MWh Sold</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	27.2	28.7	28.3	30.1	28.9	30.4
Electric Group Mean (excl. Ameren Missouri)	28.1	28.5	29.3	28.9	28.9	29.0
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	12	12	13	13	14	15
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

### Non-Fuel Production O&M (Excluding Nuclear) per Customer Cost Efficiency

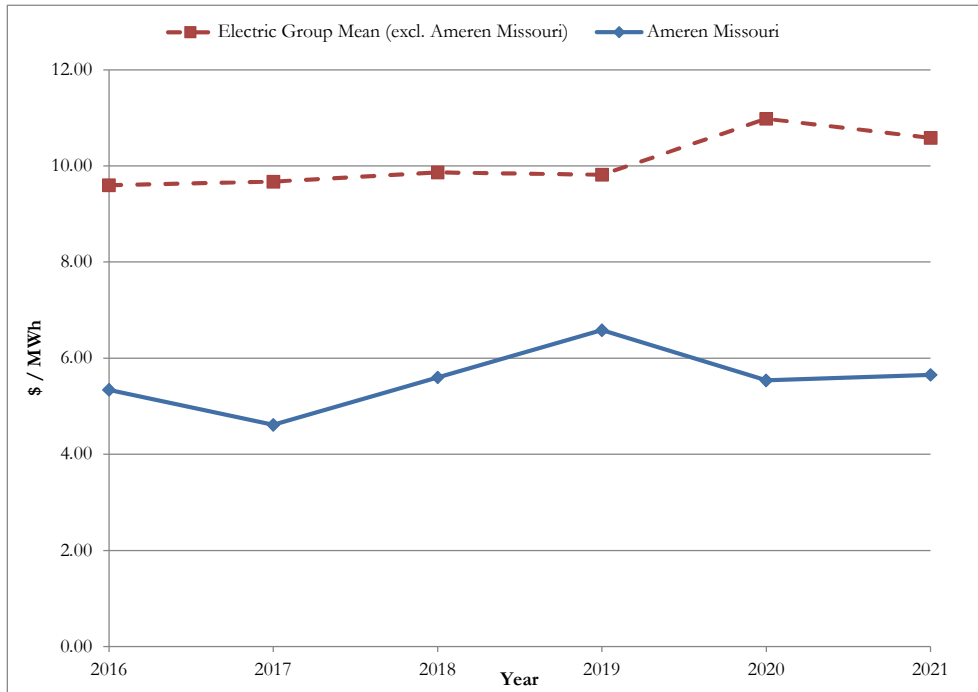


<b>Non-Fuel Production O&amp;M (Excluding Nuclear) per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	129	125	147	146	129	149
Electric Group Mean (excl. Ameren Missouri)	210	202	211	195	177	178
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	4	5	6	7	7	9
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Total Power Production O&M Expenses, excluding Nuclear less fuel, Purchased Power, and Other Expenses; Total Electric Customers

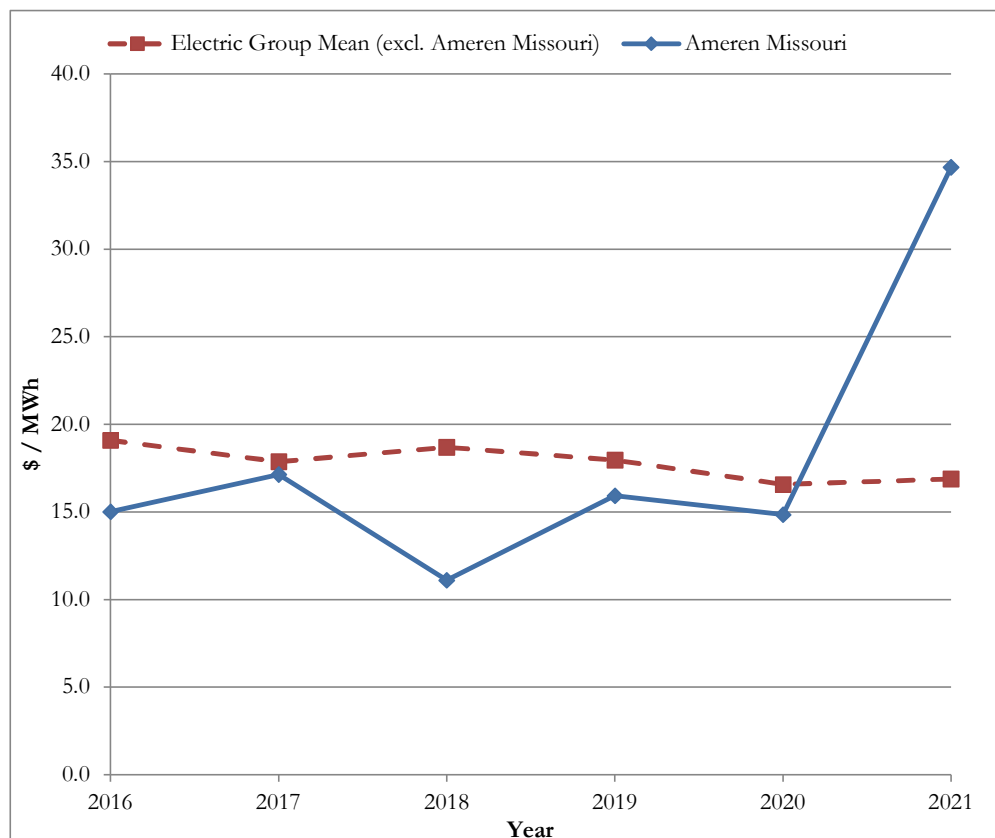
**Non-Fuel Production O&M per MWh Produced (Excluding Nuclear)  
Cost Efficiency**



<b>Non-Fuel Production O&amp;M per MWh Produced (Excluding Nuclear)</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	5.34	4.62	5.60	6.58	5.54	5.66
Electric Group Mean (excl. Ameren Missouri)	9.60	9.67	9.87	9.82	10.98	10.59
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	2	2	4	5	3	4
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Total Power Production O&M Expenses excluding Nuclear, less Fuel, Purchased Power, and Other Expenses; Total Net Generation excl Nuclear

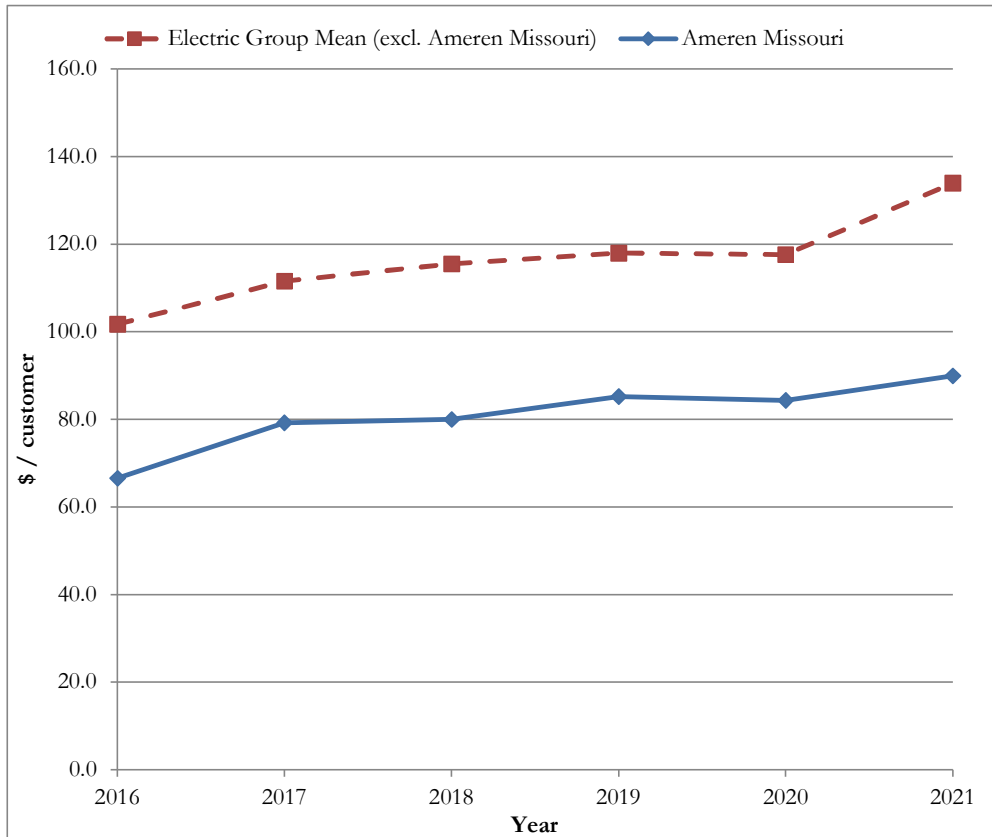
## Non-Fuel Nuclear Production O&M per Nuclear MWh Produced Cost Efficiency



Non-Fuel Nuclear Production O&M per Nuclear MWh Produced						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	15.0	17.1	11.1	15.9	14.8	34.7
Electric Group Mean (excl. Ameren Missouri)	19.1	17.9	18.7	18.0	16.6	16.9
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	1	4	1	2	3	8
Total Ranked	8	8	8	8	8	8

Source: SNL Interactive, FERC Form 1  
Non-Fuel Nuclear O&M less Fuel Expenses; Nuclear Generation (MWh)

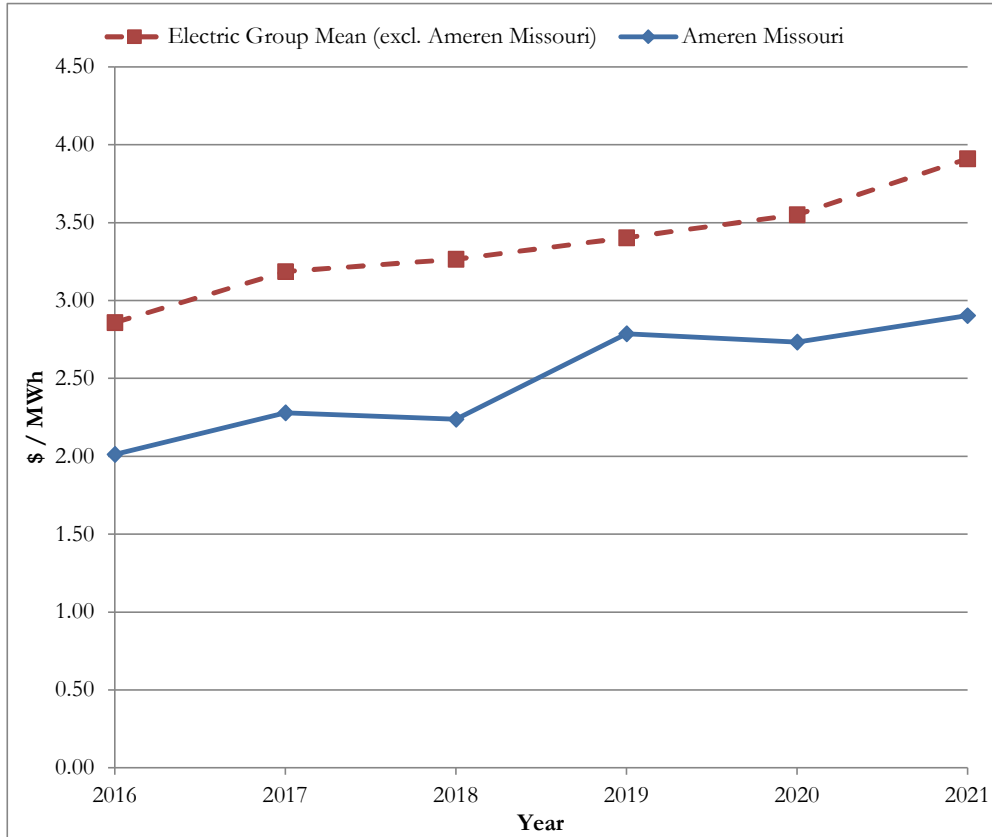
## Transmission O&M per Customer Cost Efficiency



<b>Transmission O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	66.6	79.2	80.0	85.2	84.4	90.0
Electric Group Mean (excl. Ameren Missouri)	101.7	111.5	115.5	118.0	117.6	133.9
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	10	11	10	10	11	11
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electric Customers

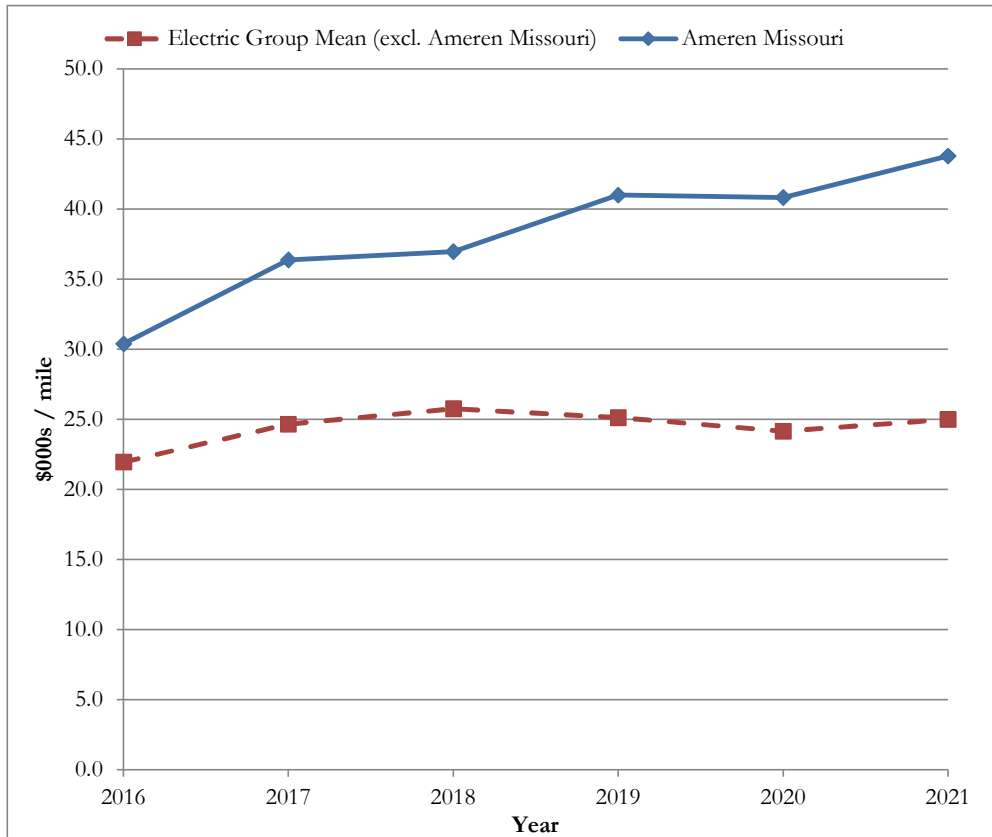
## Transmission O&M per MWh Cost Efficiency



<b>Transmission O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	2.01	2.28	2.24	2.79	2.73	2.90
Electric Group Mean (excl. Ameren Missouri)	2.86	3.19	3.27	3.40	3.55	3.91
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	9	8	8	10	9	10
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electricity Sales Vol

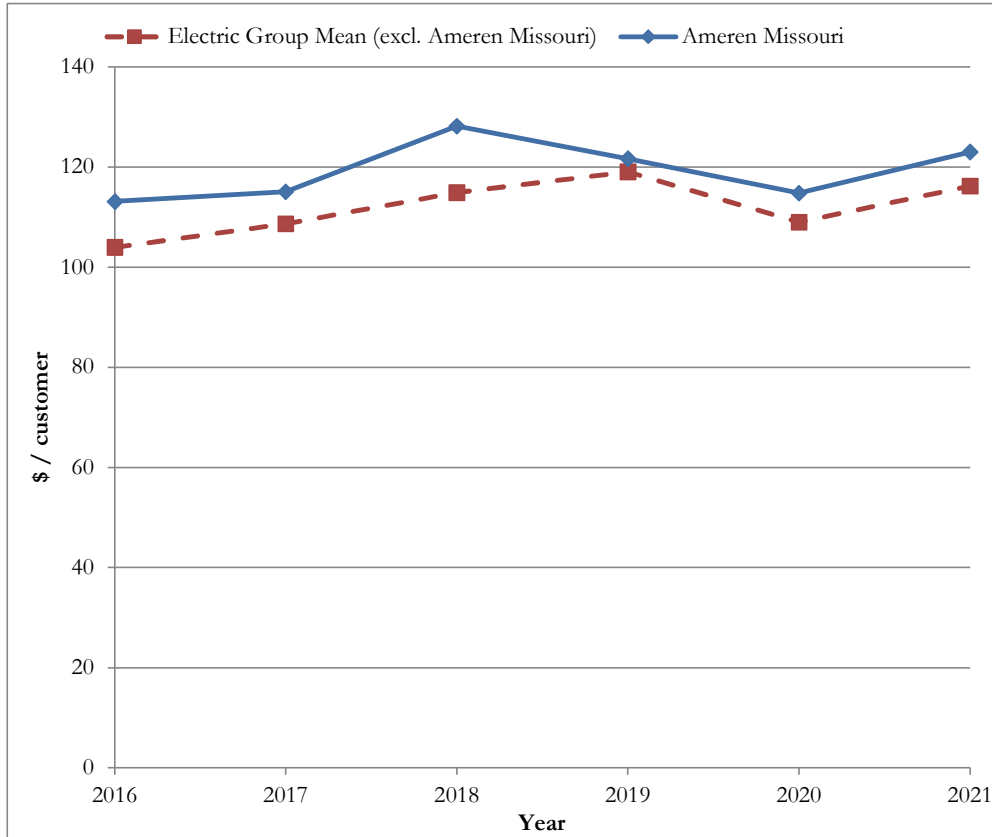
## Transmission O&M per Mile of Transmission Line Cost Efficiency



<b>Transmission O&amp;M per Mile of Transmission Line</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	30.4	36.4	37.0	41.0	40.8	43.8
Electric Group Mean (excl. Ameren Missouri)	22.0	24.7	25.8	25.1	24.1	25.0
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	16	17	17	16	17	17
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp (\$000); Length of Transmission Lines (Miles)

## Distribution O&M per Customer Cost Efficiency

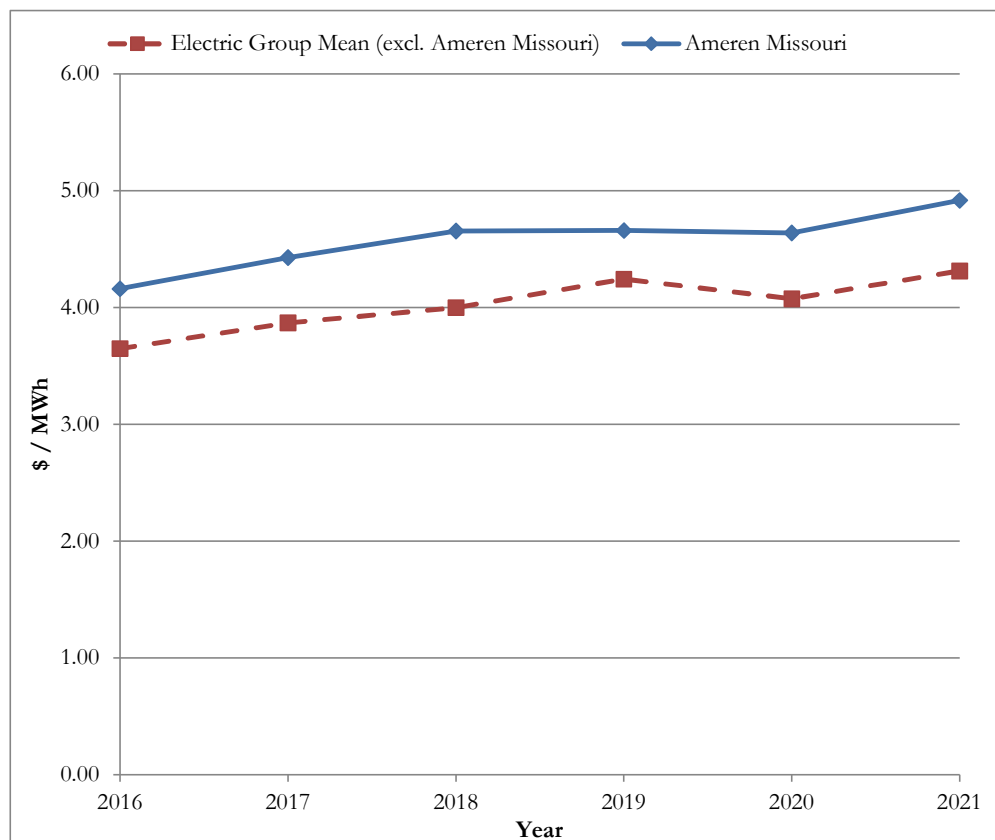


<b>Distribution O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	113	115	128	122	115	123
Electric Group Mean (excl. Ameren Missouri)	104	109	115	119	109	116
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	14	13	14	12	12	13
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Ult Consumer Electric Customers



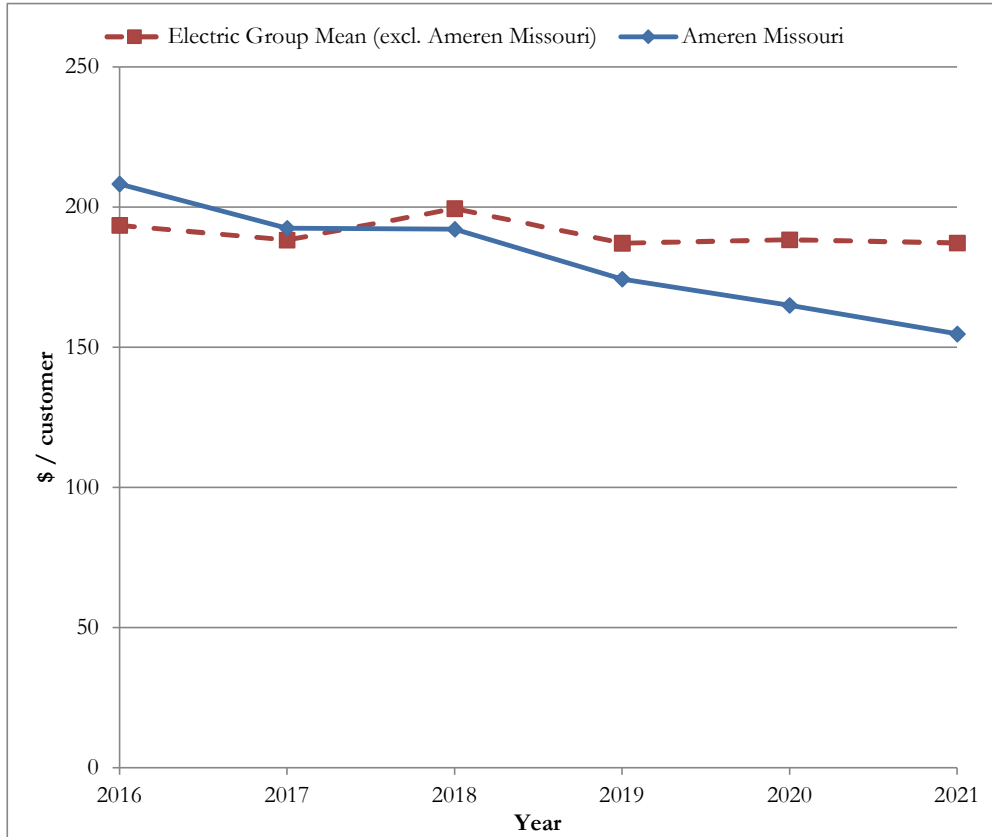
### Distribution O&M per MWh Cost Efficiency



<b>Distribution O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	4.16	4.43	4.65	4.66	4.64	4.92
Electric Group Mean (excl. Ameren Missouri)	3.65	3.87	4.00	4.24	4.08	4.31
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	17	16	18	15	15	16
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

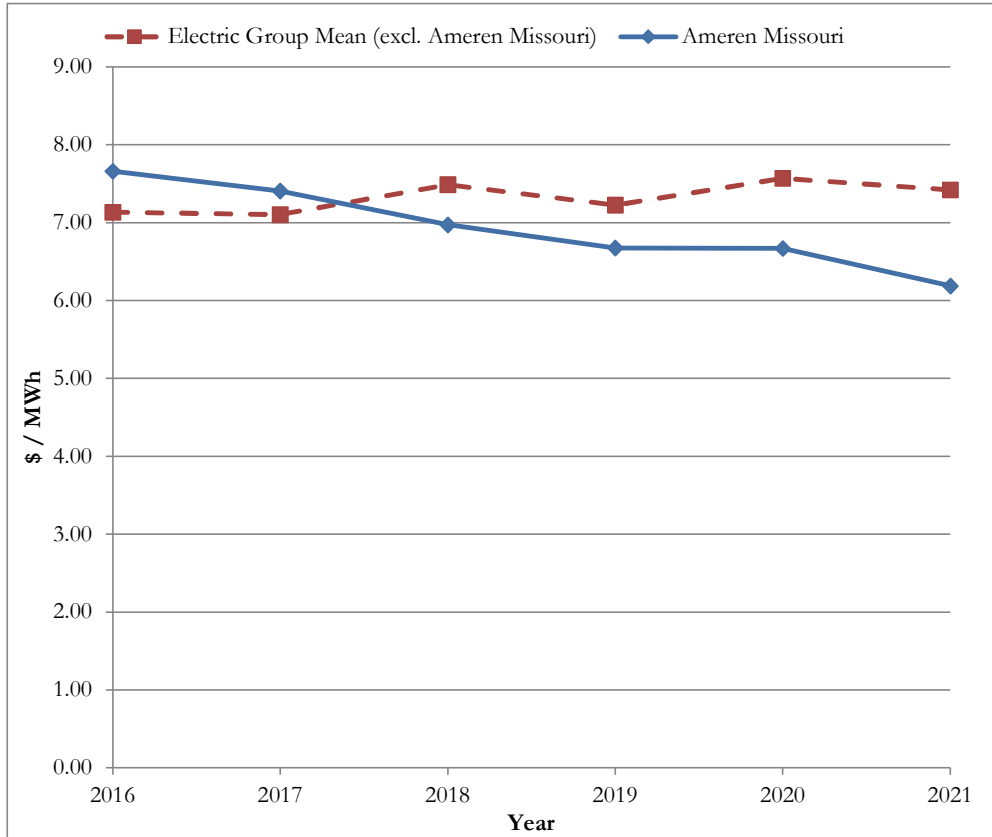
## A&G Expense per Customer Cost Efficiency



<b>A&amp;G Expense per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Electric Group Mean (excl. Ameren Missouri)	193	188	199	187	188	187
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	14	12	10	10	10	8
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Ult Consumer Electric Customers

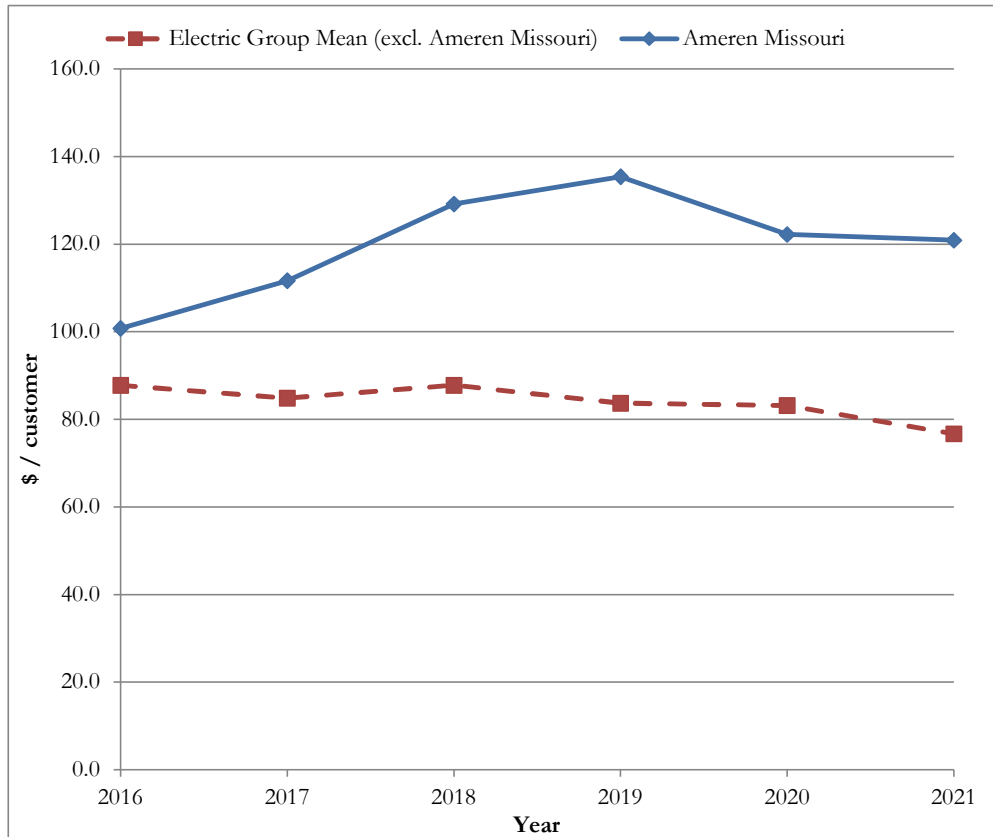
## A&G Expense per MWh Cost Efficiency



<b>A&amp;G Expense per MWh</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	7.66	7.41	6.97	6.68	6.67	6.19
Electric Group Mean (excl. Ameren Missouri)	7.13	7.10	7.49	7.23	7.57	7.42
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	14	14	12	12	13	11
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## Customer Expense per Customer Cost Efficiency

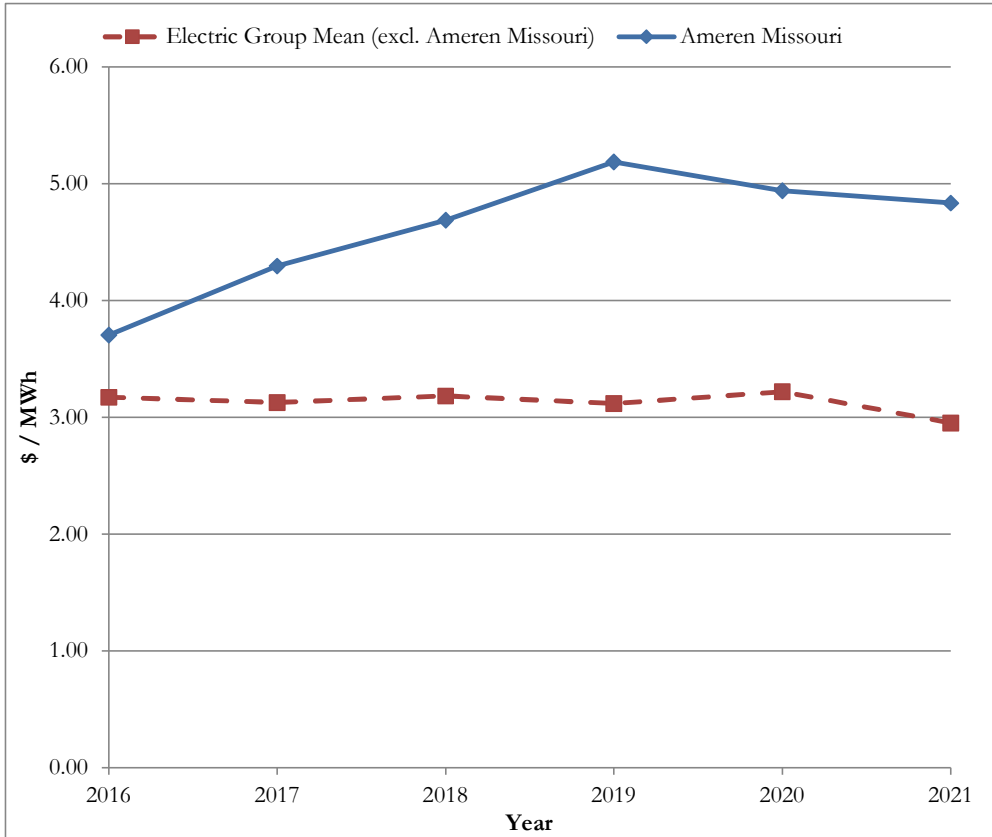


<b>Customer Expense per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	100.8	111.7	129.1	135.4	122.2	120.9
Electric Group Mean (excl. Ameren Missouri)	87.8	84.8	87.8	83.7	83.2	76.7
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	15	18	20	20	19	20
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Ult Consumer Electric Customers

## Customer Expense per MWh Cost Efficiency



<b>Customer Expense per MWh</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	3.71	4.30	4.69	5.19	4.94	4.83
Electric Group Mean (excl. Ameren Missouri)	3.17	3.13	3.18	3.12	3.22	2.95
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	12	17	19	21	19	19
Total Ranked	21	21	21	21	21	21

Source: SNL Interactive, FERC Form 1

Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

Exhibit No.:  
Issue(s): Affiliate Transactions  
Witness: Joseph S. Weiss  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric Company  
File No.: ER-2024-0319  
Date Testimony Prepared: June 28, 2024

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2024-0319**

**DIRECT TESTIMONY**

**OF**

**JOSEPH S. WEISS**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri  
June, 2024**

**EXHIBIT D**

- 1 • AMS from time-to-time engages in various exercises that include benchmarking itself  
2 to other companies to help ensure that its costs are market-based and uses competitive  
3 bidding in accordance with corporate policies for procurement; and
- 4 • Ameren Missouri can, if it so chooses, reduce the services it takes from AMS in given  
5 areas and either self-provide a service or obtain it elsewhere.

6 Simply put, these facts provide a very compelling case that selecting AMS as the service  
7 provider is not only a reasonable decision, but also the best decision that the Company can  
8 make. This decision by Ameren Missouri is unquestionably prudent.

## 9 VI. HISTORICAL COST ANALYSIS

10 **Q. Have you prepared an analysis of how Ameren Missouri's customers have benefited**  
11 **from the formation of AMS?**

12 A. Yes. An analysis of Ameren Missouri's administrative and general ("A&G") expense  
13 levels from 1999 to 2023 was prepared to determine if its customers have benefited from  
14 the formation of AMS concurrent with the merger with CIPS, CILCO and IP. In the twelve  
15 months ending March 31, 2024, 91% of the operation and maintenance expense dollars  
16 allocated to the Ameren Missouri electric distribution business from AMS included within  
17 the revenue requirement were booked to administrative and general expenses.

18 **Q. Please explain the analysis.**

19 A. Starting with data from 1990, the reported A&G expense levels were collected as reported  
20 in FERC Form 1s. As previously mentioned, UE & CIPS merged in 1997. From that point  
21 forward, the historical actual expense levels were escalated using the gross domestic  
22 product implicit price deflator for each year through 2023.

1           The same analysis was performed for the acquisition of CILCO in 2003 and Illinois Power  
2           in 2004.

3           As shown in Schedule JSW-D3, the A&G cost levels for the merged companies are  
4           consistently lower than the sum of the individual stand-alone operating companies'  
5           escalated A&G expense levels. This indicates that the merged companies' costs, including  
6           AMS' allocated costs, are lower than they would likely have been absent the mergers.

7   **Q.   Have you also performed an assessment of Ameren Missouri's costs compared to**  
8   **those of similar utilities?**

9   A.   Yes. I updated the benchmarking analysis performed in File Nos. ER-2019-0335, ER-  
10       2021-0240, and ER-2022-0337 to include an analysis through 2023. I compared Ameren  
11       Missouri's total non-fuel O&M expense and A&G expense against three peer groups:

- 12       1. National Electric Utilities with regulated generation and greater than 50,000  
13       customers;<sup>5</sup>
- 14       2. Midwest Electric Utilities with regulated generation and greater than 50,000 customers;  
15       and
- 16       3. National Electric Utilities with regulated generation and 500,000 to 2,000,000  
17       customers.

18   **Q.   What years did the benchmarking analyses review?**

19   A.   The six most recent years for which data were available (i.e., 2018-2023) were used to  
20       perform the analyses. This represents the years reviewed in File No. ER-2019-0335, File

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<sup>5</sup> Hawaii Electric Light Company, Hawaiian Electric Company, and Maui Electric Company do not file their Electric Financials and Operating data with FERC, but to the Public Utilities Commission of Hawaii. The Public Utilities Commission of Hawaii has different deadlines than FERC and then that data is manually processed by S&P. As of the completion of this analysis the data had not been processed by S&P, so these three companies are not included in the peer group.



1 No. ER-2021-0240, and File No. ER-2022-0337 updated with current data and 2022 and  
2 2023 added to the analyses.

3 **Q. What was the source of the data used to perform the benchmarking analyses?**

4 A. The analyses utilized data obtained from the S&P Global Market Intelligence platform.  
5 The source of the data was the annual FERC Form 1 filings made by electric utilities.

6 **Q. Did you make any adjustments to the source data?**

7 A. No.

8 **Q. How did you normalize the benchmarking analyses to account for differences in the  
9 size of the utilities?**

10 A. To normalize issues related to the size of the companies in the comparison, all costs were  
11 evaluated on a per customer basis.

12 **Q. How did Ameren Missouri compare to its peers when reviewing total non-fuel O&M  
13 cost per customer of the national electric utilities with regulated generation peer  
14 group<sup>6</sup>?**

15 A. As shown on Schedule JSW-D4, Ameren Missouri has had below (i.e., better than) the  
16 national average non-fuel O&M costs in all six years analyzed. Ameren Missouri's total  
17 non-fuel O&M cost per customer was 14.75% below the national average in 2023.

18 **Q. How did Ameren Missouri compare to its peers when reviewing just the A&G portion  
19 of these O&M expenses on a per customer basis?**

20 A. As shown on Schedule JSW-D5, Ameren Missouri's A&G expense per customer has been  
21 below the national average A&G expense in all six years analyzed. In 2023, Ameren  
22 Missouri's A&G cost per customer was 35.73% below the national average.

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<sup>6</sup> Additionally, the peer group included criteria that companies must have greater than 50,000 customers.

1 **Q. Is it possible that these results are biased by the inclusion of higher-cost utilities on**  
2 **the east and west coasts, as opposed to Midwestern utilities?**

3 A. No, in fact Ameren Missouri's costs are even more competitive when compared to Midwest  
4 utilities.<sup>7</sup> As shown on Schedule JSW-D6, Ameren Missouri posted results that were  
5 25.65% below the average for Midwest utilities for total non-fuel O&M costs in 2023 and  
6 has been considerably below the regional average each year analyzed. On this basis of  
7 comparison, Ameren Missouri is a top performer.

8 **Q. How did Ameren Missouri compare to its Midwest peers when reviewing A&G**  
9 **expense per customer?**

10 A. As shown on Schedule JSW-D7, Ameren Missouri's A&G cost per customer was more  
11 than 36% below the regional average in 2023.

12 **Q. When the comparisons are limited to the larger utilities, which presumably have**  
13 **economies of scale as AMS has been able to achieve, how does Ameren Missouri**  
14 **compare to the national averages?**

15 A. As shown on Schedule JSW-D8, when compared to national electric utilities with regulated  
16 generation and between 500,000 and 2 million customers, Ameren Missouri achieved  
17 slightly lower-than-average cost levels for total non-fuel O&M in 2023, 4.38% below the  
18 large utility peer group average, and has achieved lower-than-average cost levels for total  
19 non-fuel O&M each year of the analysis. Even when compared to the smaller subset of 20  
20 other large utilities, Ameren Missouri is performing well.

21 **Q. When compared to the larger companies, how did Ameren Missouri look for just the**  
22 **A&G portion of O&M expense?**

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<sup>7</sup> Additionally, the peer group included criteria that companies must have greater than 50,000 customers.

1 A. As shown on Schedule JSW-D9, Ameren Missouri's A&G cost per customer was below  
2 the large company peer group average by 21.78% in 2023 and has achieved lower-than-  
3 average cost levels for A&G each year of the analysis.

4 **Q. What can be concluded from the results of these analyses?**

5 A. As a result of the mergers of Union Electric, CIPS, CILCO, and IP, the Company has been  
6 able to drive down costs of the businesses. The source of reduced costs is from the  
7 consolidation of common corporate and A&G functions which now reside at AMS. These  
8 savings result from the elimination of duplicative positions (e.g., a CEO and CFO and  
9 Treasurer at each operating company, multiple CIOs, multiple General Counsels, etc.) as  
10 well as economies of scale attributable to the provisioning of services by a smaller number  
11 of employees than the four individual companies could have achieved separately. In  
12 addition, AMS and Ameren Missouri engage in continuous improvement and customer  
13 affordability efforts that should be expected to contribute to bringing down Ameren  
14 Missouri's largest measure of controllable cost, Total Non-Fuel O&M per customer, which  
15 is in fact below the peer group average levels for all three of the peer groups I have  
16 examined. The numbers indicate that these efforts have delivered significant savings for  
17 customers, while maintaining compensation at competitive levels for employees working  
18 at AMC subsidiaries.

19 **Q. Have you expanded the benchmarking?**

20 A. Yes. I have done some additional benchmarking to further assess Ameren Missouri's  
21 financial and operational performance.

22 **Q. In general, what steps did you take in constructing this additional benchmarking**  
23 **analysis?**

1 A. The first step of the benchmarking analysis was to define the timeframe over which the  
2 analysis was to be performed. The second step was to develop the composition of the peer  
3 group used to compare to Ameren Missouri. The third step was to define the financial and  
4 operational metrics to be used in the benchmarking and to collect the necessary data to  
5 evaluate these metrics.

6 **Q. How did you select the companies to include in your benchmarking peer group?**

7 A. My objective in determining the peer group was to achieve the largest group of companies  
8 for which consistent data were available and which were, broadly speaking, operationally  
9 similar to Ameren Missouri. Because Ameren Missouri is a large primarily electric utility  
10 with ownership in generating resources, I established a peer group of companies with  
11 electric-only utility operations that have between 500,000 and 2 million customers and own  
12 generating resources. This produced a peer group of 20 comparable companies.

13 **Q. What data sources did you rely on for the performance metrics that you developed?**

14 A. I obtained much of the data from FERC Form 1 and U.S. Securities and Exchange  
15 Commission (“SEC”) Form 10-K reports (as reported by S&P Cap IQ Pro).

16 **Q. What metrics did you use to assess Ameren Missouri’s financial and operational  
17 performance?**

18 A. I evaluated Ameren Missouri’s performance across a variety of financial and operational  
19 metrics to evaluate the Company’s cost efficiency. Regarding cost efficiency – the ability  
20 to maximize output and minimize costs, I considered expense performance metrics:

- 21 • **Total Non-Fuel O&M expenses**
- 22 • **Non-Fuel Production O&M expenses**
- 23 • **Transmission O&M expenses**

- 1           • **Distribution O&M expenses**
- 2           • **Administrative and General (“A&G”) expenses**
- 3           • **Customer expenses**

4 **Q. Did the metrics account for companies of different sizes?**

5 A. Yes. Most metrics are calculated on an expense per customer or an expense per MWh sold  
6 basis.

7 **Q. Have you provided the results of the expense performance metrics?**

8 A. Yes. Schedule JSW-D10 thru Schedule JSW-D23 provides the results of each of the  
9 expense performance metrics listed above.

10 **Q. Overall, how did Ameren Missouri compare to its peers in regards to the expense  
11 performance metrics?**

12 A. In reviewing the four primary operating functions (generation, transmission, distribution,  
13 and customer service), and administrative and general expenses, Ameren Missouri is a  
14 strong performer in controlling its expenses per customer. Ameren Missouri was below  
15 the peer group mean in every year of the analysis for Non-Fuel Production O&M expenses  
16 per customer and Transmission O&M expenses per customer. Ameren Missouri was below  
17 the peer group mean for 4 of the 6 years of the analysis for Non-Fuel Nuclear Production  
18 O&M per Nuclear MWh Produced, but this expense was above the peer group mean in  
19 2021 and just above the peer group mean in 2023. This atypical increase in 2021 was due  
20 to the shutdown of the Callaway Energy Center Nuclear Plant for several months.<sup>8</sup> While  
21 Ameren Missouri was above the group mean in 5 of the 6 years of the analysis for

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<sup>8</sup> Since the denominator of this metric is the annual nuclear MWh produced, the decrease in production caused by a plant shut down for part of the year causes this total metric to increase in that year. Ameren Missouri’s Callaway Energy Center shut down in December 2020 as a result of an equipment failure. The plant was back online in August of 2021.

1 Distribution O&M expenses per customer, its ranking has stayed relatively consistent over  
2 each year examined and was below the peer group mean in 2022. Ameren Missouri was  
3 below the peer group mean in Administrative and General expenses per customer in every  
4 year of the analysis.

5 **Q. Which metrics provide the best indication of Ameren Missouri's overall performance**  
6 **relative to the peer groups?**

7 A. While each metric is significant and may help identify particular areas of strength or  
8 weakness, the best indication of Ameren Missouri's overall level of performance in terms  
9 of cost control, which also provides a good indication of the reasonableness of AMS costs  
10 since it provides significant services to Ameren Missouri, is Total Non-Fuel O&M  
11 expenses per customer. This category covers all four primary operating functions  
12 (generation, transmission, distribution, and customer service), and includes all  
13 administrative and general functions which, as noted, make up nearly all AMS O&M costs.  
14 Further, this metric has the advantage of removing the effects of differences in fuel costs,  
15 which can vary due to availability, location, and state or local environmental policies.

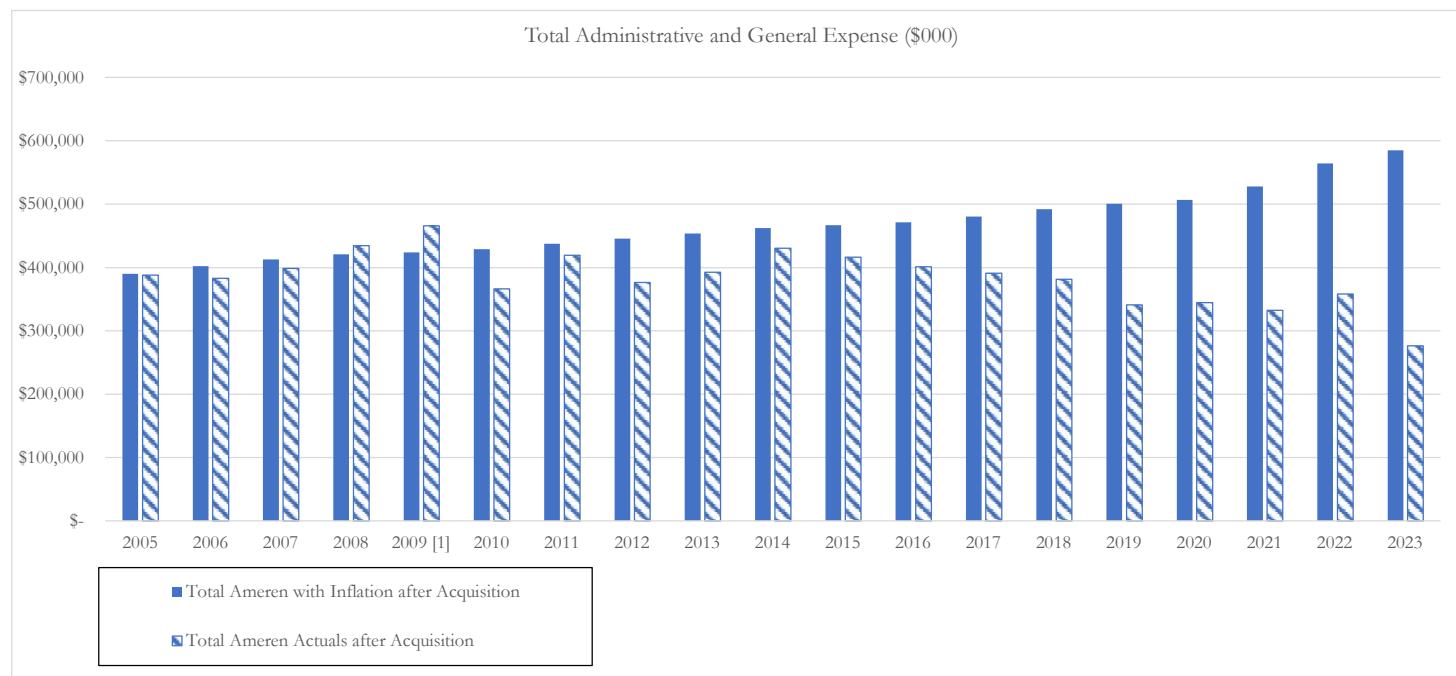
16 **Q. Please discuss how Ameren Missouri compares to its peers in regards to the Total**  
17 **Non-Fuel O&M expense metric.**

18 A. Ameren Missouri's performance controlling its non-fuel O&M expense per customer and  
19 per MWh sold is strong in each year of my analysis coming in below the peer group average  
20 in each year examined in the per customer analysis and right around the peer group average  
21 for each year in the per MWh sold analysis.

Administrative and General Expense Detailed Analysis

**Total Administrative and General (\$000)**

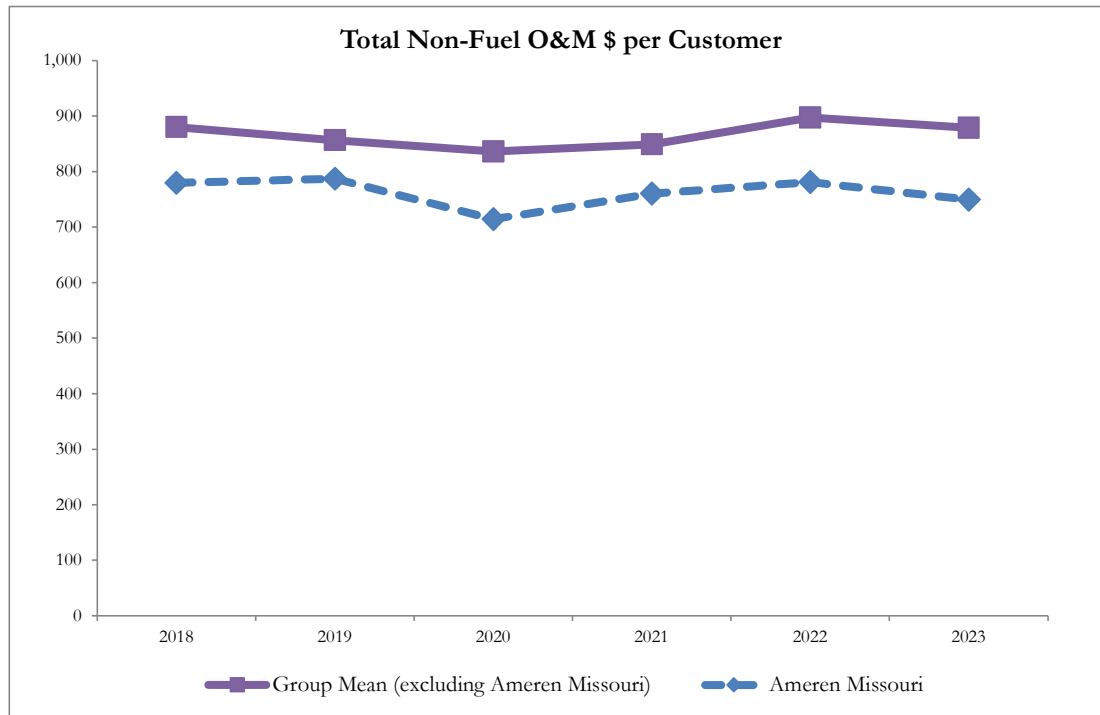
<b>Inflated after Acquisition</b>																			
	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Union Electric	234,223	241,457	247,981	252,758	254,365	257,413	262,765	267,684	272,366	277,455	280,241	283,045	288,412	295,305	300,588	304,182	316,788	338,816	351,165
CIPS (merger completed 12/31/1997)	77,672	80,071	82,234	83,819	84,351	85,362	87,137	88,768	90,321	92,008	92,933	93,862	95,642	97,928	99,680	100,872	105,052	112,357	116,452
CILCO (acquisition closed 1/31/2003)	27,078	27,914	28,668	29,220	29,406	29,758	30,377	30,946	31,487	32,075	32,398	32,722	33,342	34,139	34,750	35,165	36,622	39,170	40,598
IP (acquisition closed 9/30/2004)	51,155	52,735	54,160	55,203	55,554	56,220	57,389	58,463	59,486	60,597	61,206	61,818	62,990	64,496	65,650	66,435	69,188	73,997	76,694
<b>Total Ameren with Inflation after Acquisition</b>	<b>390,128</b>	<b>402,178</b>	<b>413,044</b>	<b>421,000</b>	<b>423,676</b>	<b>428,754</b>	<b>437,669</b>	<b>445,862</b>	<b>453,660</b>	<b>462,136</b>	<b>466,777</b>	<b>471,447</b>	<b>480,386</b>	<b>491,868</b>	<b>500,667</b>	<b>506,654</b>	<b>527,650</b>	<b>564,340</b>	<b>584,909</b>
<b>Actuals</b>																			
Union Electric	243,224	245,282	265,020	272,687	250,628	240,384	275,201	236,903	251,904	278,701	264,623	251,783	234,050	235,012	214,437	204,068	192,583	230,619	188,547
CIPS (merger completed 12/31/1997)	41,305	39,765	39,944	47,871	40,468														
CILCO (acquisition closed 1/31/2003)	36,057	30,052	32,037	27,610	97,824														
IP (acquisition closed 9/30/2004)	67,543	67,716	61,571	86,449	77,172														
Ameren Illinois						126,171	143,958	139,418	140,454	151,672	151,661	149,707	157,181	146,610	126,801	140,380	139,515	127,478	88,022
<b>Total Ameren Actuals after Acquisition</b>	<b>388,129</b>	<b>382,815</b>	<b>398,572</b>	<b>434,617</b>	<b>466,092</b>	<b>366,555</b>	<b>419,159</b>	<b>376,321</b>	<b>392,358</b>	<b>430,373</b>	<b>416,284</b>	<b>401,490</b>	<b>391,231</b>	<b>381,622</b>	<b>341,238</b>	<b>344,448</b>	<b>332,099</b>	<b>358,097</b>	<b>276,569</b>



**NOTES**

[1] Amount for CILCO in 2009 ties to the Form 1 which includes \$57,483 of intercompany billings recorded in account 921. In the Company's filing in Docket #12-0001, that amount was excluded.

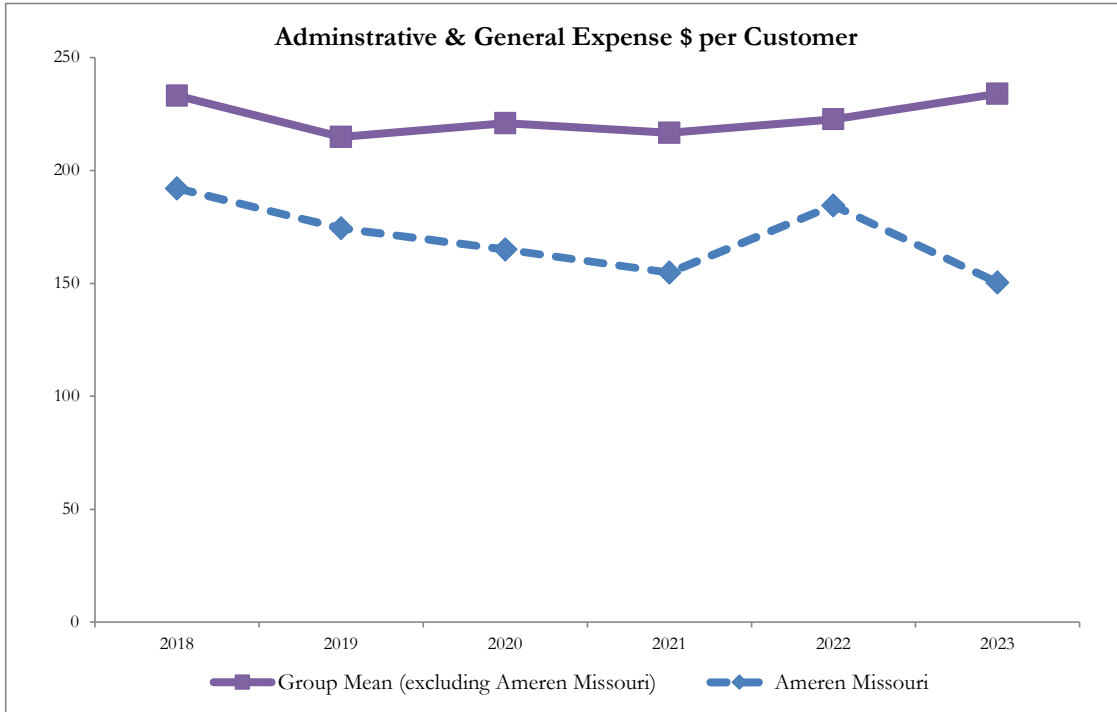
**National Electric Utilities With Regulated Generation, >50k Customers**



Total Non-Fuel O&M \$ per Customer						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	779	787	714	760	781	749
Group Mean (excluding Ameren Missouri)	880	857	836	849	897	879
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
National Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	20	21	17	19	19	20
Quartile	2	2	2	2	2	2
Total Ranked	48	48	48	48	48	48

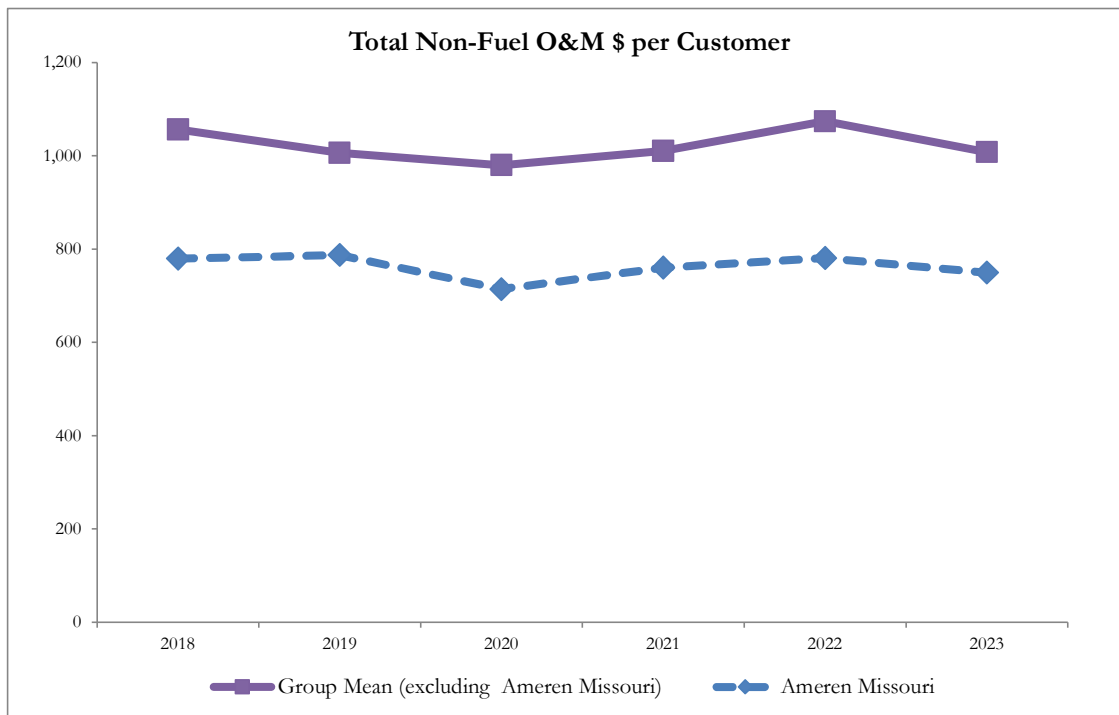


**National Electric Utilities With Regulated Generation, >50k Customers**



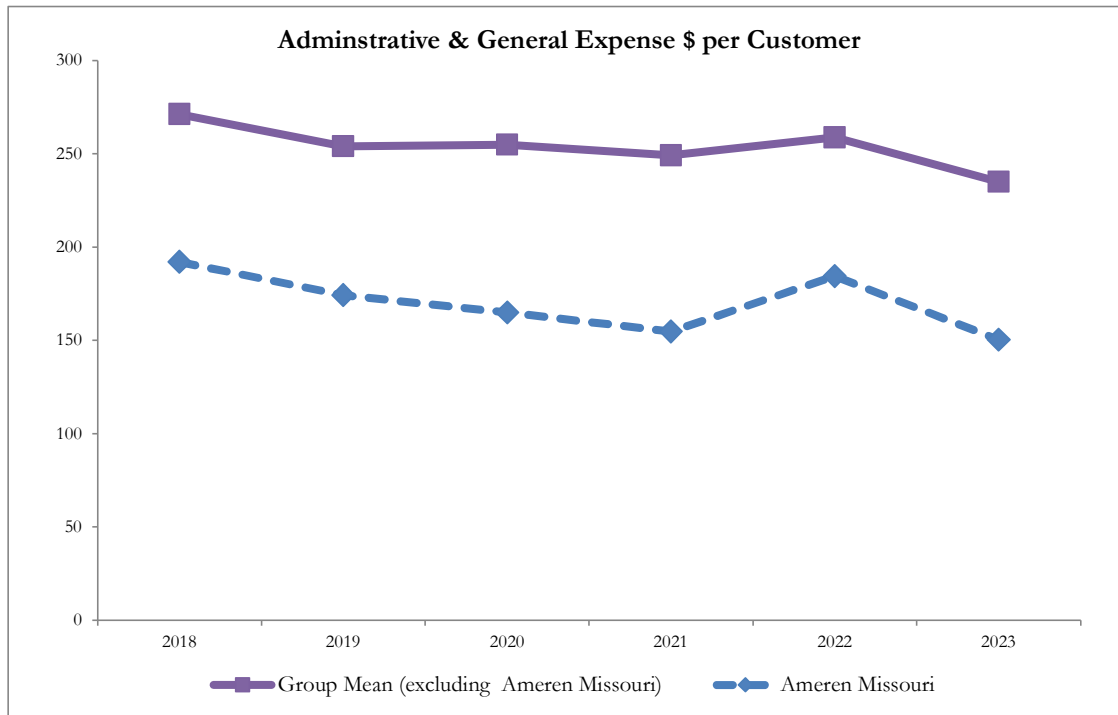
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	192	174	165	155	184	150
Group Mean (excluding Ameren Missouri)	233	215	221	217	223	234
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
National Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	21	19	18	15	22	18
Quartile	2	2	2	2	2	2
Total Ranked	48	48	48	48	48	48

**Midwest Electric Utilities With Regulated Generation, >50k Customers**



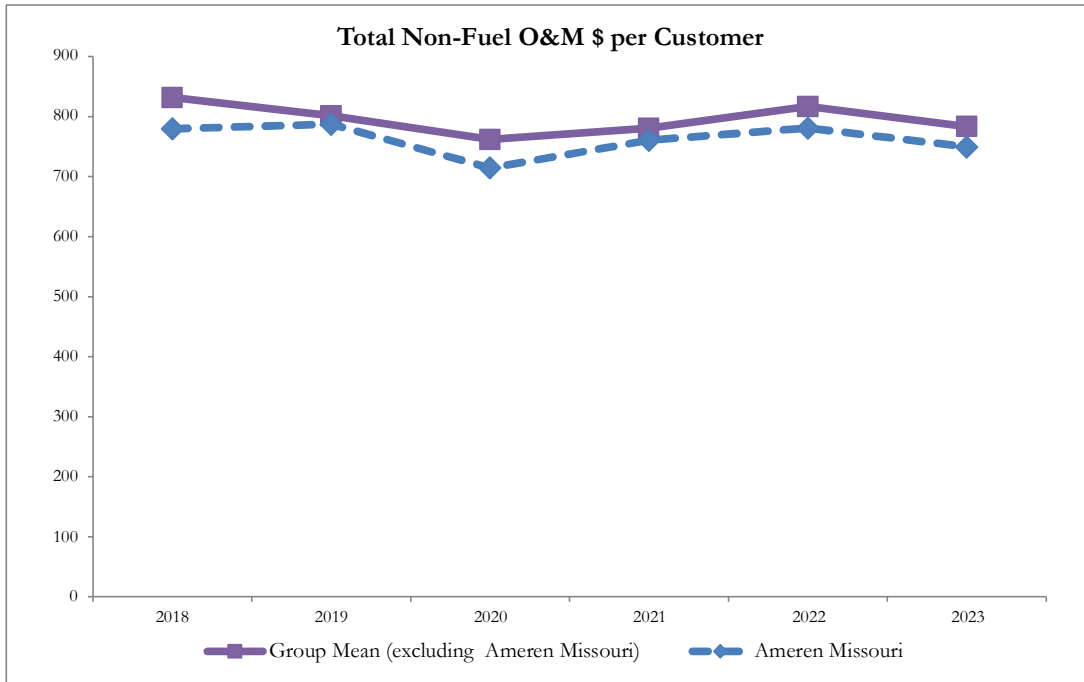
Total Non-Fuel O&M \$ per Customer						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	779	787	714	760	781	749
Group Mean (excluding Ameren Missouri)	1,056	1,006	980	1,010	1,074	1,008
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Midwest Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	3	3	2	3	4	5
Quartile	1	1	1	1	1	2
Total Ranked	17	17	17	17	17	17

**Midwest Electric Utilities With Regulated Generation, >50k Customers**



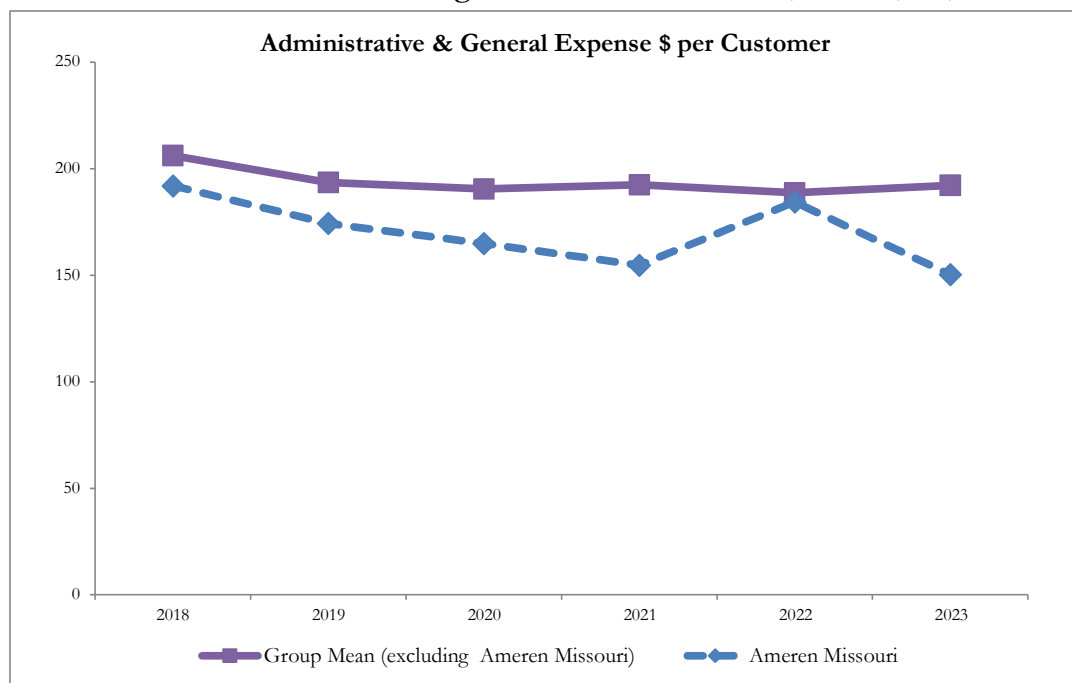
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	192	174	165	155	184	150
Group Mean (excluding Ameren Missouri)	271	254	255	249	259	235
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Midwest Electric Utilities With Regulated Generation, >50k Customers						
Ameren Missouri	5	5	5	3	7	7
Quartile	2	2	2	1	2	2
Total Ranked	17	17	17	17	17	17

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



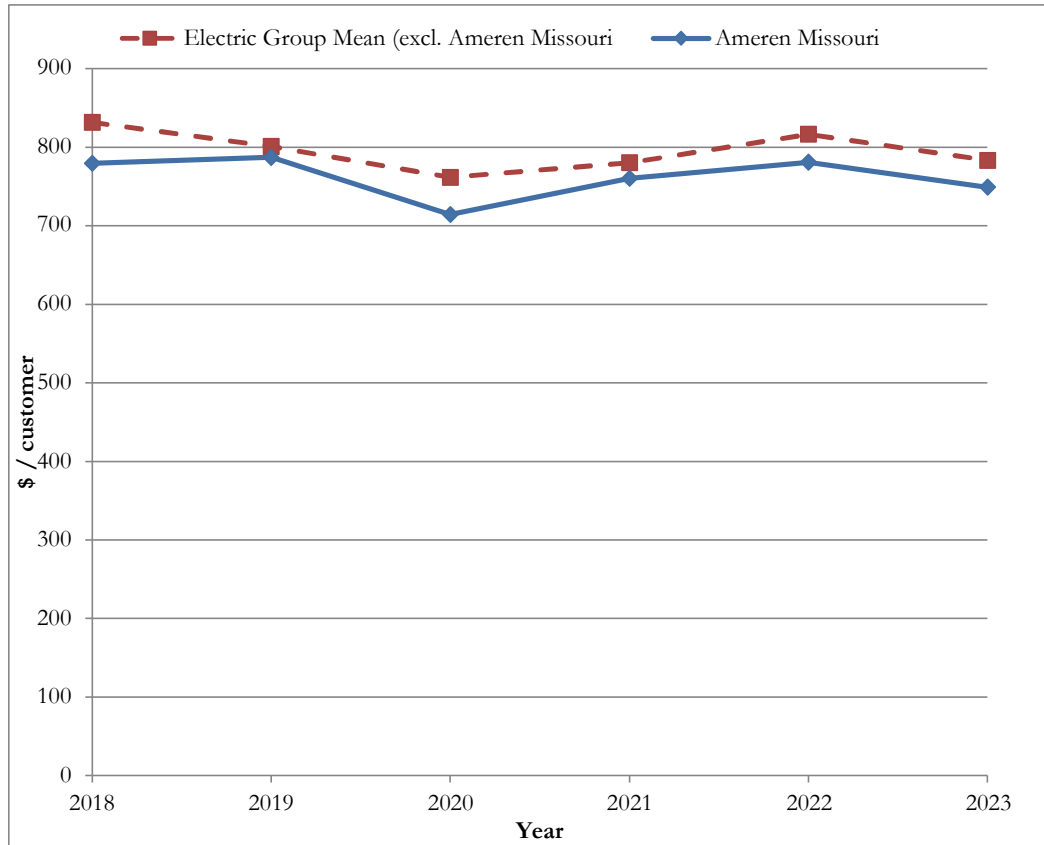
<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Ameren Missouri	779	787	714	760	781	749
Group Mean (excluding Ameren Missouri)	832	801	762	780	816	783
<i>Rankings</i>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	9	10	8	8	9	10
Quartile	2	2	2	2	2	2
Total Ranked	20	20	20	20	20	20

**National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers**



<b>Administrative &amp; General Expense \$ per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	192	174	165	155	184	150
Group Mean (excluding Ameren Missouri)	206	194	190	192	189	192
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
National Electric Utilities With Regulated Generation & 500,000 to 2,000,000 Customers						
Ameren Missouri	9	9	9	7	12	8
Quartile	2	2	2	2	3	2
Total Ranked	20	20	20	20	20	20

## Total Non-Fuel O&M per Customer Cost Efficiency

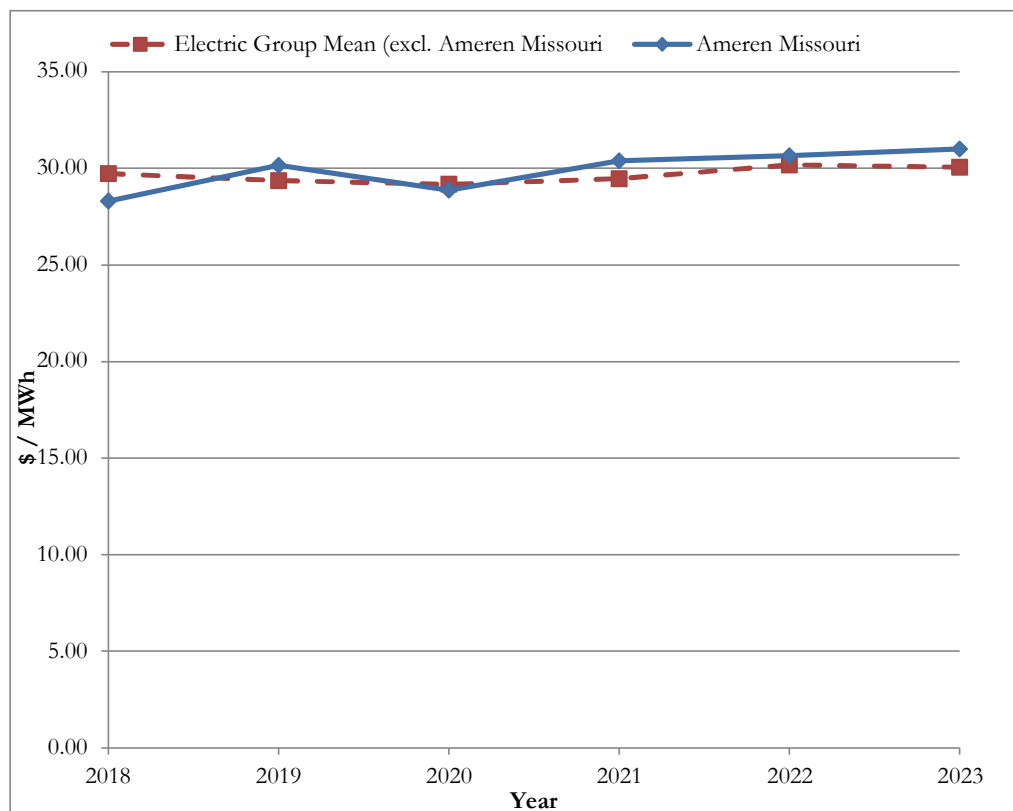


<b>Total Non-Fuel O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	779	787	714	760	781	749
Electric Group Mean (excl. Ameren Missouri)	832	801	762	780	816	783
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	9	10	8	8	9	10
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Ult Consumer Electric Customers

## Total Non-Fuel O&M per MWh Sold Cost Efficiency

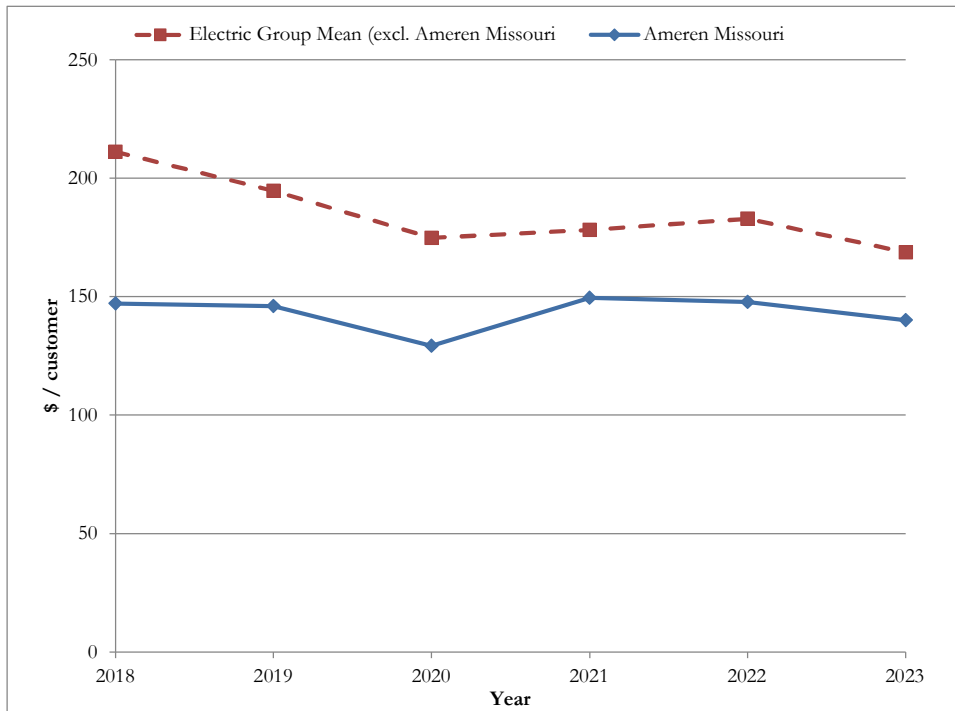


<b>Total Non-Fuel O&amp;M per MWh Sold</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	28.3	30.1	28.9	30.4	30.6	31.0
Electric Group Mean (excl. Ameren Missouri)	29.7	29.4	29.2	29.5	30.2	30.1
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	12	12	13	14	13	13
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1

Total O&M Expenses less Fuel, Purchased Power, and Other Expenses; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## Non-Fuel Production O&M (Excluding Nuclear) per Customer Cost Efficiency



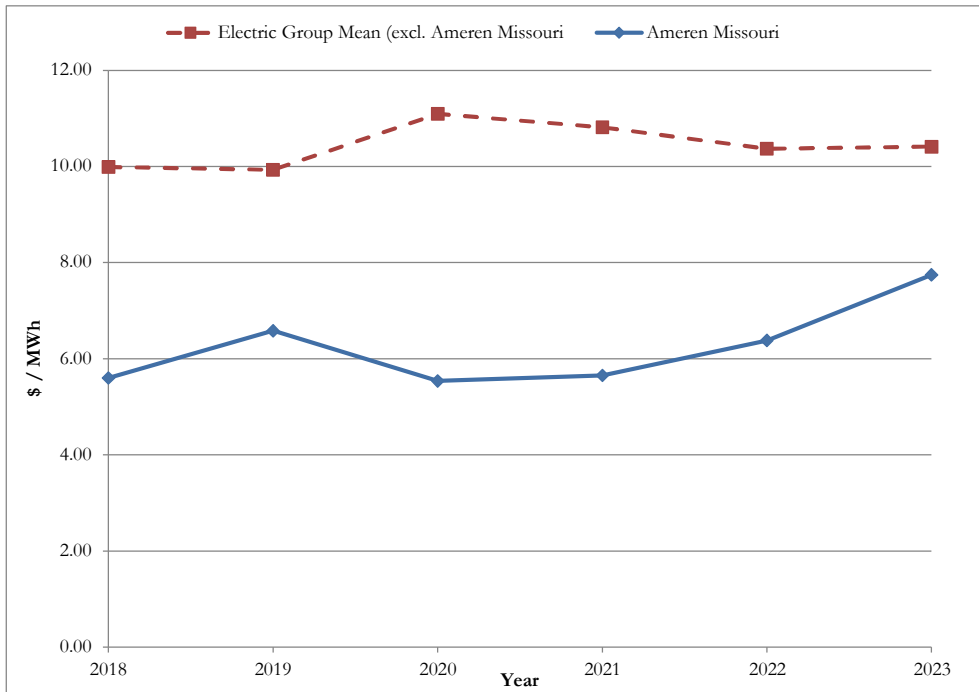
Non-Fuel Production O&M (Excluding Nuclear) per Customer						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	147	146	129	149	148	140
Electric Group Mean (excl. Ameren Missouri)	211	195	175	178	183	169
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	6	7	7	9	9	10
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1

Total Power Production O&M Expenses, excluding Nuclear less fuel, Purchased Power, and Other Expenses; Total Electric Customers



**Non-Fuel Production O&M per MWh Produced (Excluding Nuclear)  
Cost Efficiency**

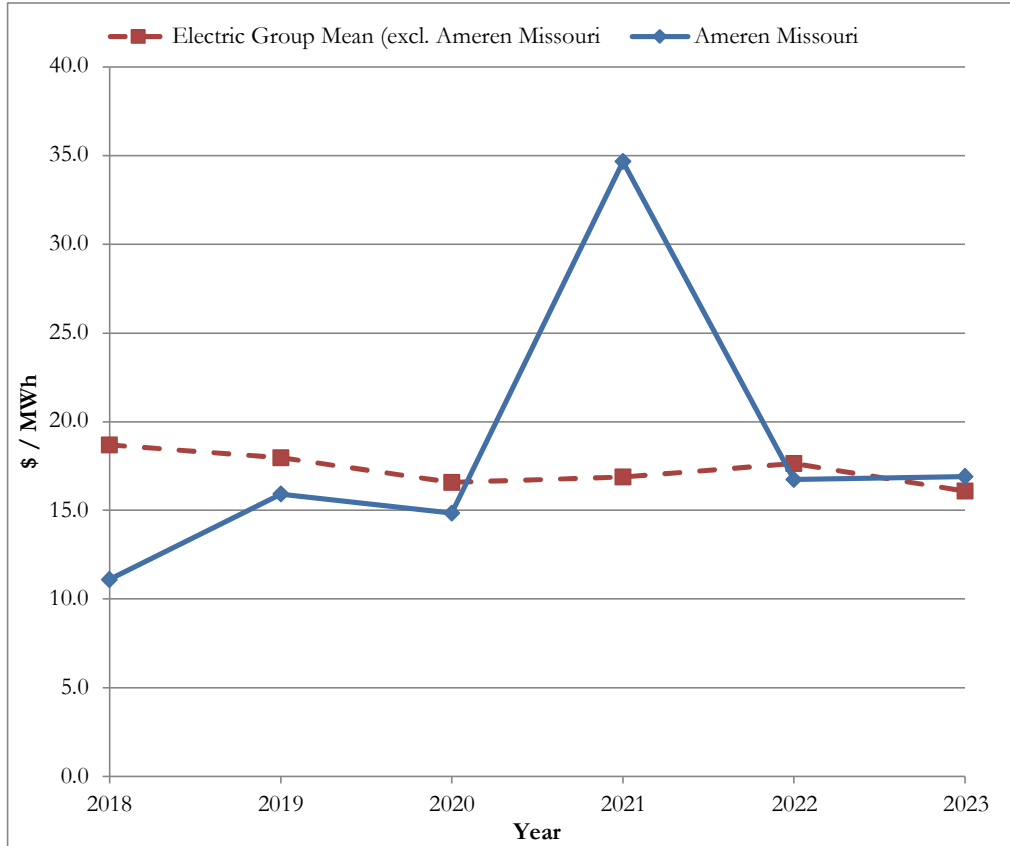


<b>Non-Fuel Production O&amp;M per MWh Produced (Excluding Nuclear)</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	5.60	6.58	5.54	5.66	6.38	7.75
Electric Group Mean (excl. Ameren Missouri)	9.99	9.93	11.10	10.81	10.37	10.42
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	4	5	3	4	7	8
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1

Total Power Production O&M Expenses excluding Nuclear, less Fuel, Purchased Power, and Other Expenses; Total Net Generation excl Nuclear

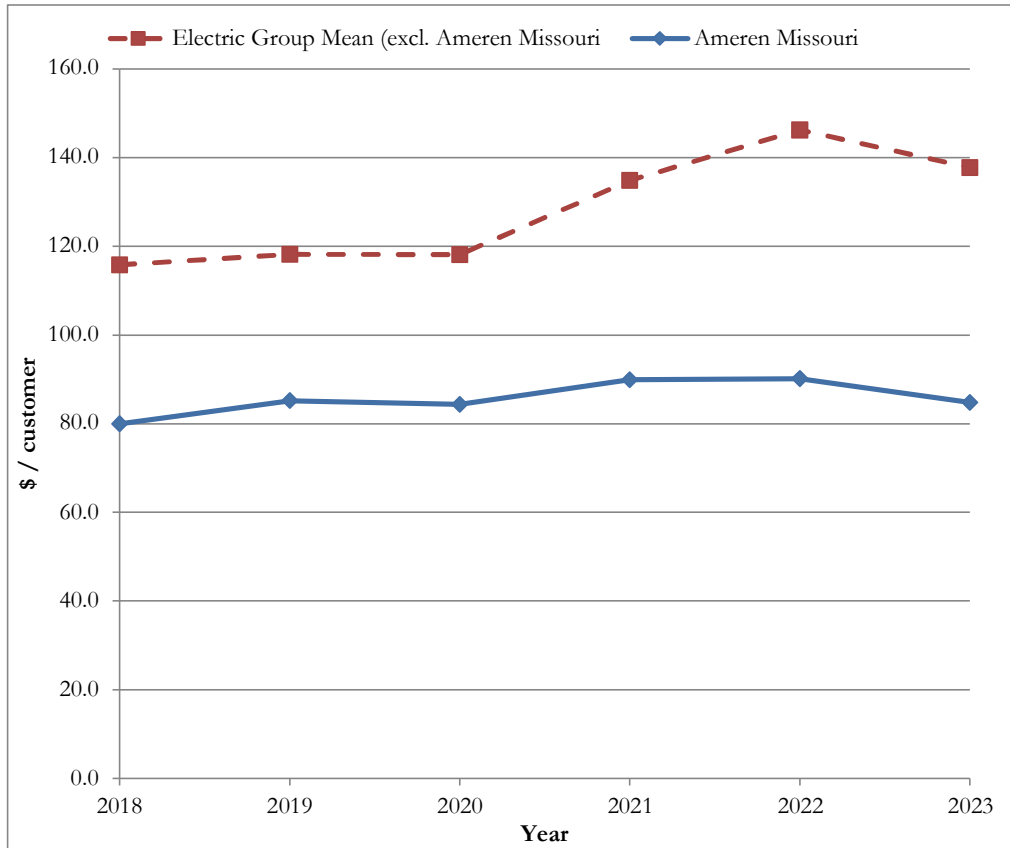
## Non-Fuel Nuclear Production O&M per Nuclear MWh Produced Cost Efficiency



Non-Fuel Nuclear Production O&M per Nuclear MWh Produced						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	11.1	15.9	14.8	34.7	16.8	16.9
Electric Group Mean (excl. Ameren Missouri)	18.7	18.0	16.6	16.9	17.7	16.1
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	1	2	3	8	5	5
Total Ranked	8	8	8	8	8	8

Source: SNL Interactive, FERC Form 1  
Non-Fuel Nuclear O&M less Fuel Expenses; Nuclear Generation (MWh)

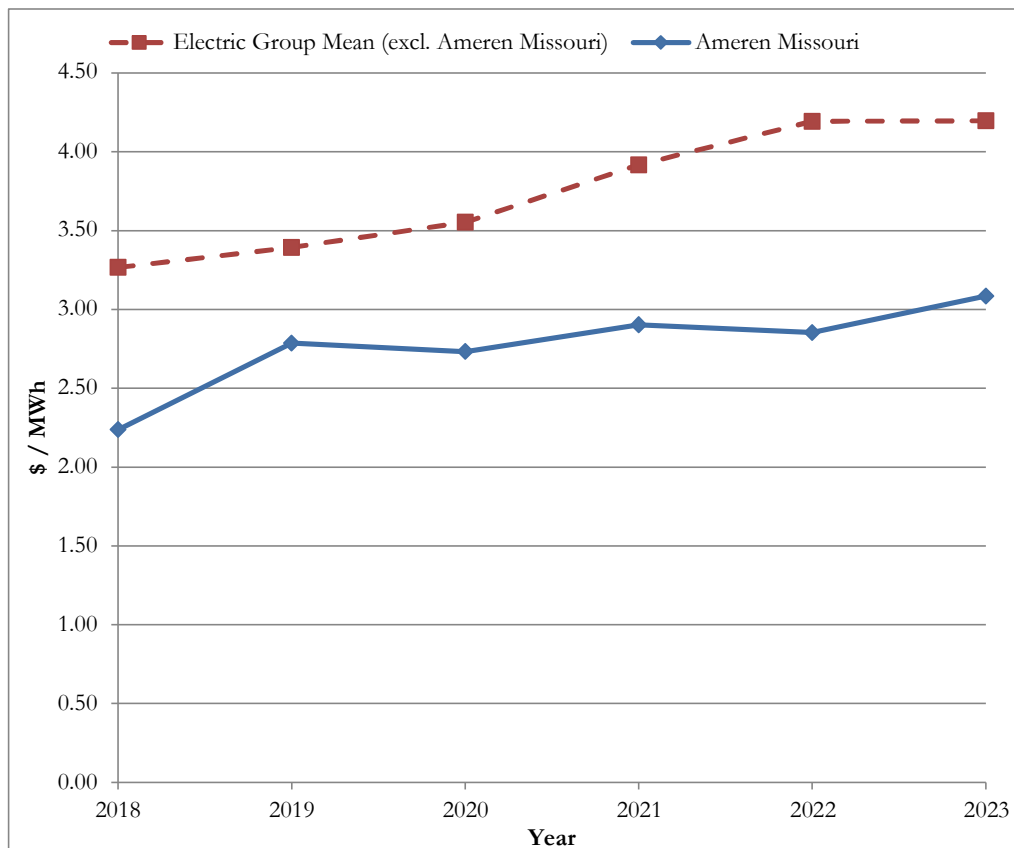
## Transmission O&M per Customer Cost Efficiency



<b>Transmission O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	80.0	85.2	84.4	90.0	90.2	84.8
Electric Group Mean (excl. Ameren Missouri)	115.8	118.2	118.2	134.9	146.3	137.8
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	10	10	11	11	10	10
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electric Customers

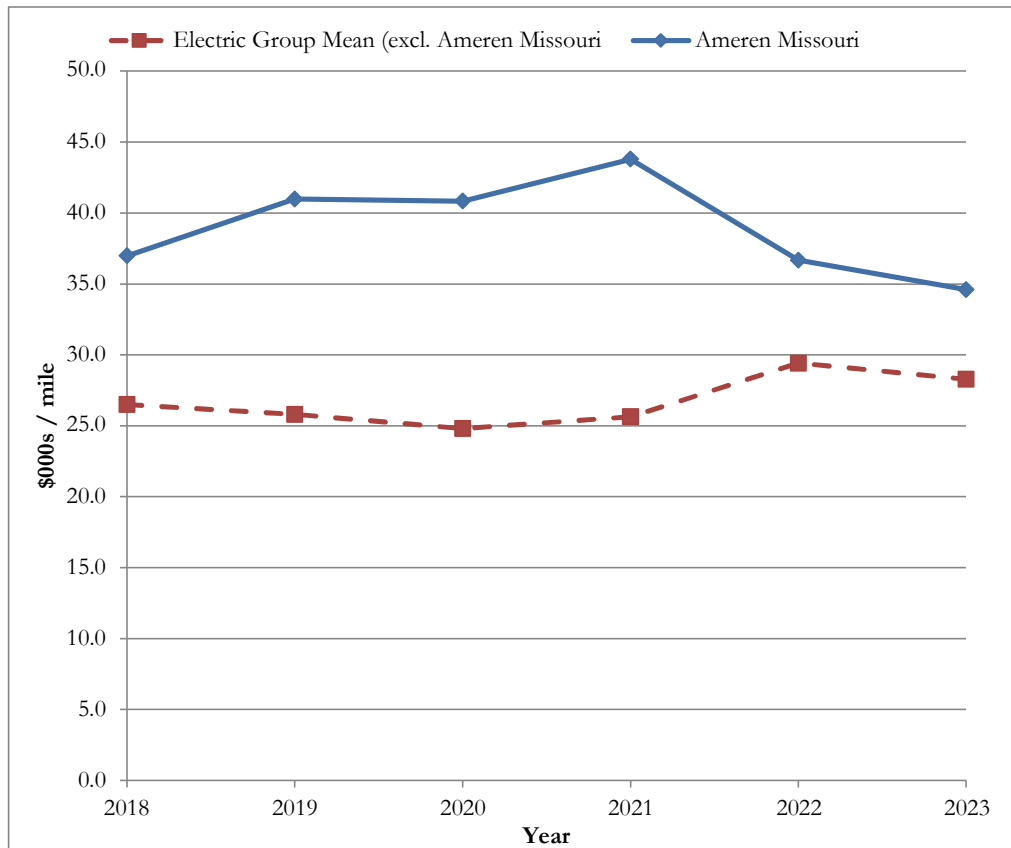
## Transmission O&M per MWh Cost Efficiency



<b>Transmission O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	2.24	2.79	2.73	2.90	2.85	3.09
Electric Group Mean (excl. Ameren Missouri)	3.27	3.39	3.55	3.92	4.19	4.20
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	8	10	9	10	8	12
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp; Total Electricity Sales Vol

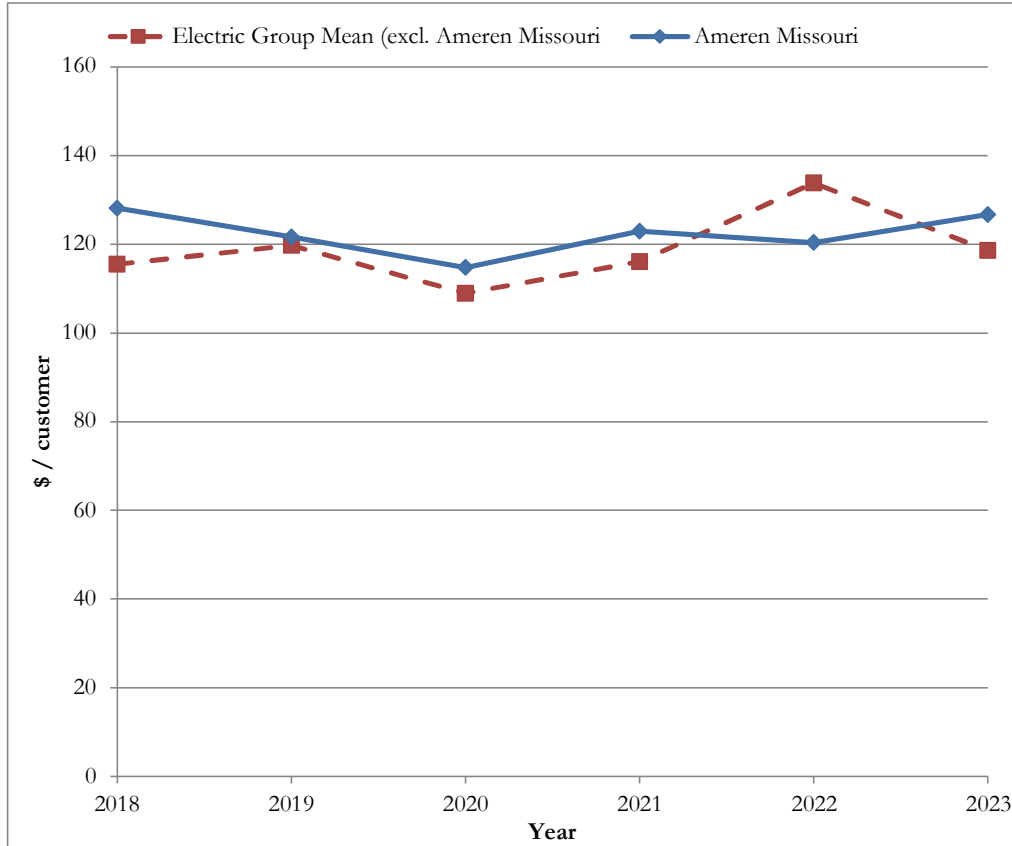
## Transmission O&M per Mile of Transmission Line Cost Efficiency



Transmission O&M per Mile of Transmission Line						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	37.0	41.0	40.8	43.8	36.7	34.6
Electric Group Mean (excl. Ameren Missouri)	26.5	25.8	24.8	25.6	29.4	28.3
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	16	15	16	16	15	15
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Transmiss-O&M Exp (\$000); Length of Transmission Lines (Miles)

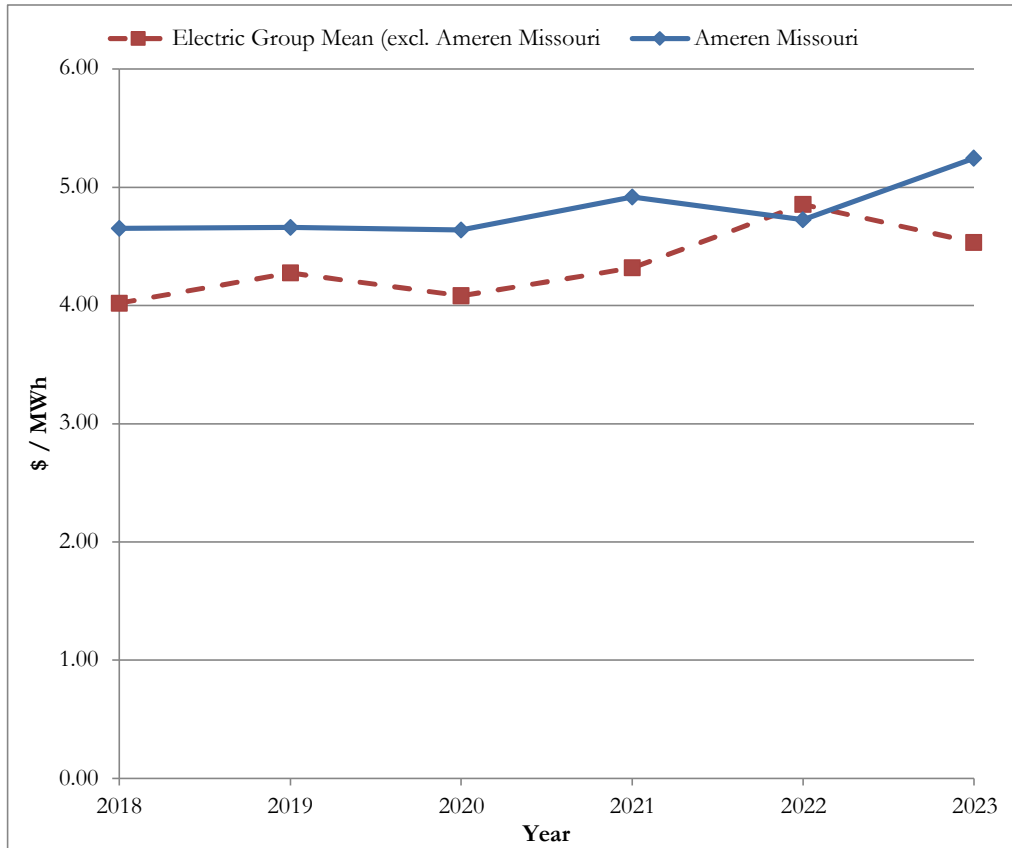
## Distribution O&M per Customer Cost Efficiency



<b>Distribution O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	128	122	115	123	120	127
Electric Group Mean (excl. Ameren Missouri)	116	120	109	116	134	119
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	13	11	11	12	9	12
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Ult Consumer Electric Customers

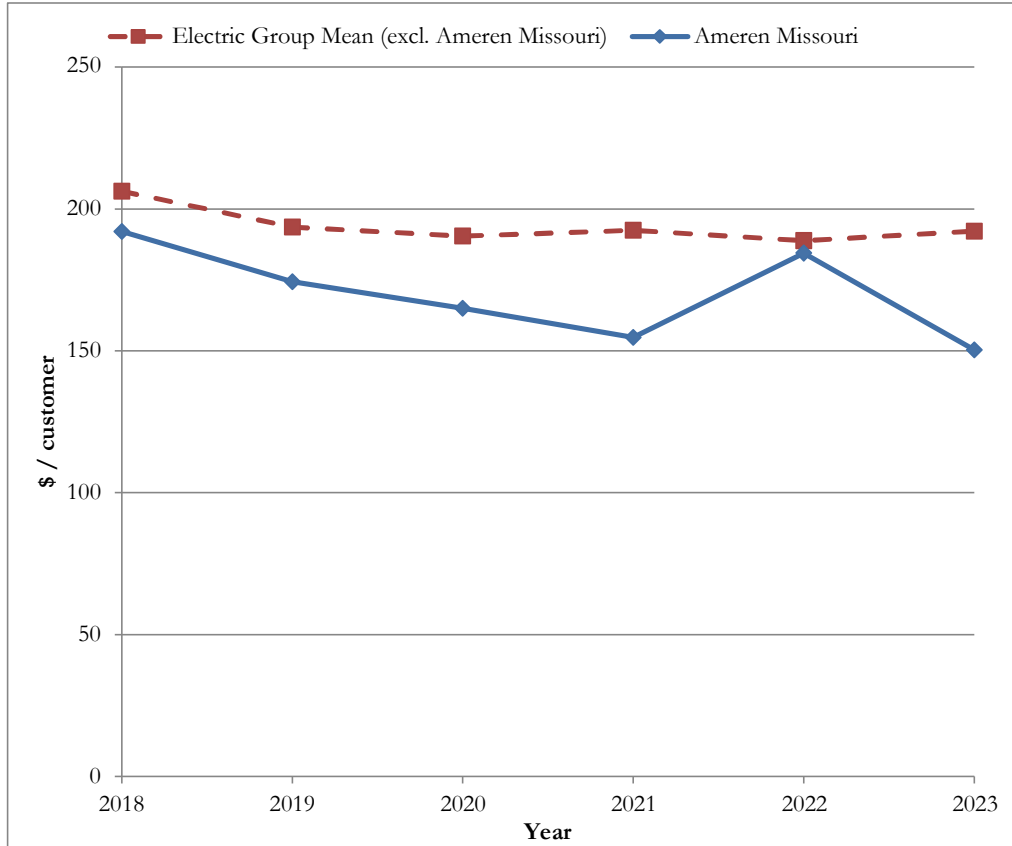
## Distribution O&M per MWh Cost Efficiency



<b>Distribution O&amp;M per MWh</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	4.65	4.66	4.64	4.92	4.73	5.25
Electric Group Mean (excl. Ameren Missouri)	4.02	4.27	4.08	4.32	4.85	4.53
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	17	14	14	15	12	16
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Distr-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## A&G Expense per Customer Cost Efficiency

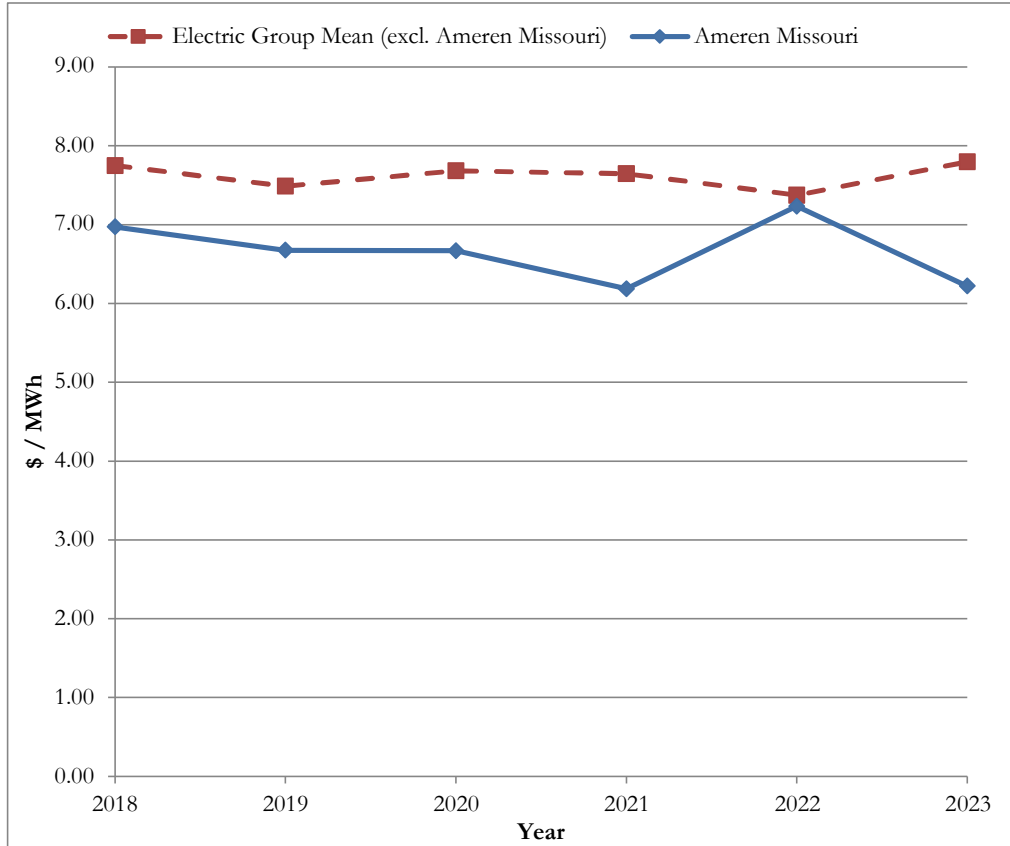


<b>A&amp;G Expense per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	192	174	165	155	184	150
Electric Group Mean (excl. Ameren Missouri)	206	194	190	192	189	192
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	9	9	9	7	12	8
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Ult Consumer Electric Customers



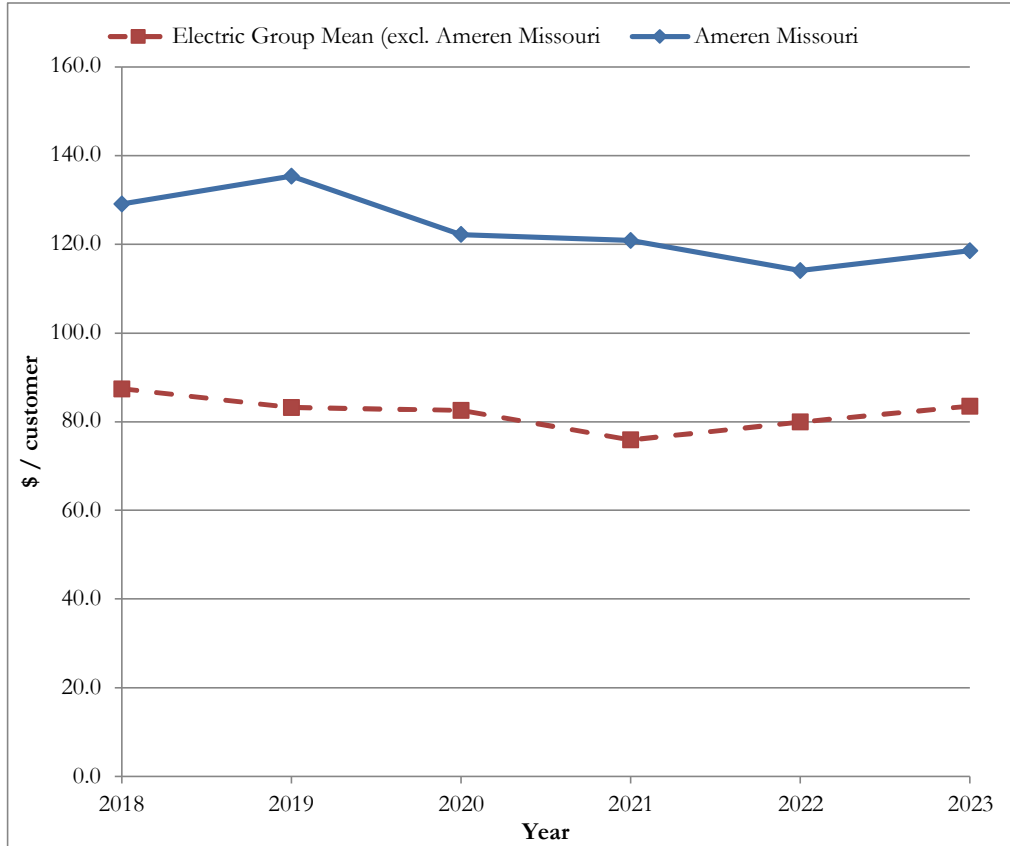
## A&G Expense per MWh Cost Efficiency



<b>A&amp;G Expense per MWh</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	6.97	6.68	6.67	6.19	7.24	6.22
Electric Group Mean (excl. Ameren Missouri)	7.75	7.49	7.69	7.65	7.38	7.80
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	11	11	12	10	11	10
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
A&G-O&M Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)

## Customer Expense per Customer Cost Efficiency

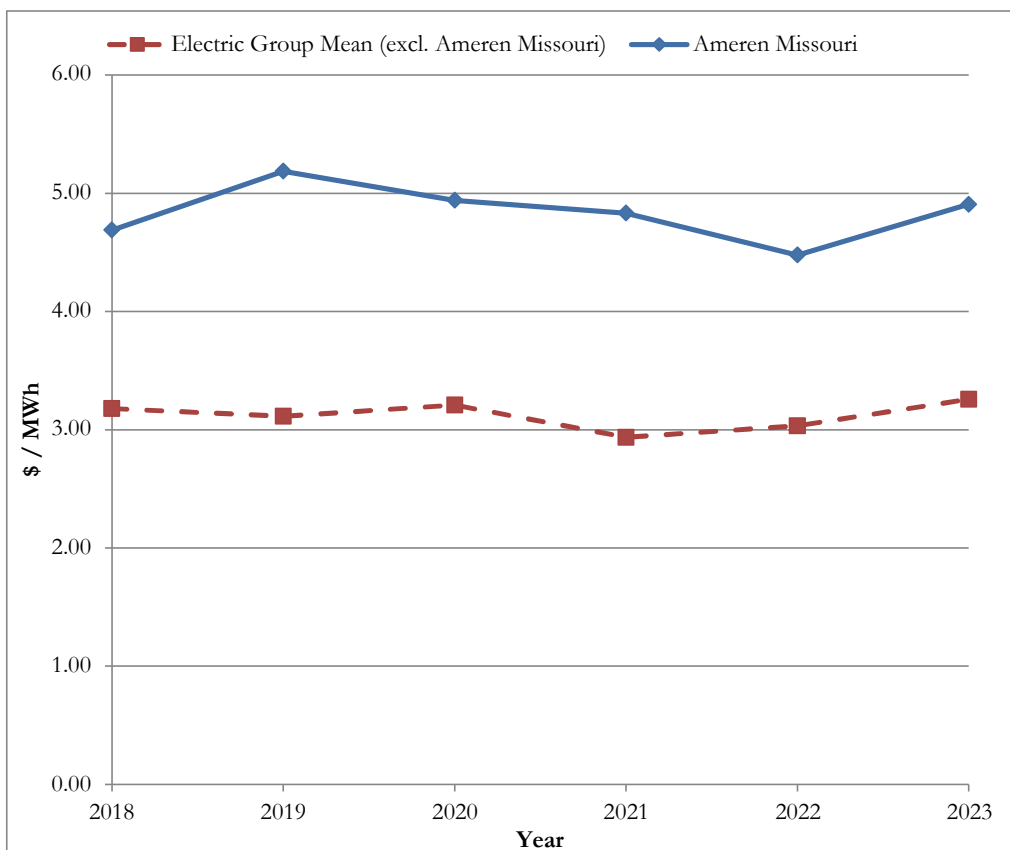


<b>Customer Expense per Customer</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	129.1	135.4	122.2	120.9	114.1	118.6
Electric Group Mean (excl. Ameren Missouri)	87.4	83.2	82.6	75.9	79.9	83.5
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	19	19	18	19	18	18
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1

Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Ult Consumer Electric Customers

## Customer Expense per MWh Cost Efficiency



<b>Customer Expense per MWh</b>						
<i>Annual Values</i>						
	2018	2019	2020	2021	2022	2023
Ameren Missouri	4.69	5.19	4.94	4.83	4.48	4.91
Electric Group Mean (excl. Ameren Missouri)	3.18	3.11	3.21	2.94	3.03	3.26
<i>Rankings</i>						
	2018	2019	2020	2021	2022	2023
Electric Group:						
Ameren Missouri	18	20	18	18	16	16
Total Ranked	20	20	20	20	20	20

Source: SNL Interactive, FERC Form 1  
Customer Accounts Exp; Customer Service and Info Exp; Sales Exp; Tot Sales: Ult Cnsmr-Mwhrs Sold (MWh)