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

**August 1, 2022**

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1 DIRECT TESTIMONY

2 OF

3 JOHN J. REED

4 I. INTRODUCTION

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

6 A. My name is John J. Reed. I am President and Chief Executive Officer of Concentric Energy  
7 Advisors, Inc. ("Concentric") and CE Capital Advisors, Inc. ("CE Capital"), which has its  
8 headquarters at 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts  
9 01752.

10 **Q. On whose behalf are you submitting this testimony?**

11 A. I am testifying on behalf of Union Electric Company d/b/a Ameren Missouri ("Ameren  
12 Missouri" or the "Company").

13 **Q. Please describe your educational background and professional experience in the  
14 energy and utility industries.**

15 A. I have more than 40 years of experience in the energy industry and have worked as an  
16 executive in, and consultant and economist to, the energy industry. Over the past 33 years,  
17 I have directed the energy consulting services of Concentric, Navigant Consulting, and  
18 Reed Consulting Group. I have served as Vice Chairman and Co-CEO of the nation's  
19 largest publicly-traded consulting firm and as Corporate Economist for the nation's largest  
20 gas utility.

21 I have provided regulatory policy and regulatory economics support to more than  
22 100 energy and utility clients and have provided expert testimony on regulatory, economic,  
23 and financial matters on more than 200 occasions before the Federal Energy Regulatory

1 Commission (“FERC”), Canadian regulatory agencies, state regulatory agencies, various  
2 state and federal courts, and arbitration panels in the United States and Canada. I have also  
3 previously appeared several times before the Missouri Public Service Commission (the  
4 “Commission”) as an expert on regulation and ratemaking issues including on the topic of  
5 affiliate transactions. I am a graduate of the Wharton School of Business at the University  
6 of Pennsylvania, and previously attended the University of Kansas. My curriculum vitae,  
7 as well as a listing of my prior testimonies is provided in Schedule JJR-D1.

8 **Q. Please describe Concentric's activities in energy and utility engagements.**

9 A. Concentric provides financial, regulatory and economic advisory services to many energy  
10 and utility clients across North America. Our regulatory, economic, and market analysis  
11 services include utility ratemaking and regulatory advisory services, energy market  
12 assessments, market entry and exit analysis, corporate and business unit strategy  
13 development, demand forecasting, resource planning, and energy contract negotiations.  
14 Our financial advisory activities include both buy and sell side merger, acquisition and  
15 divestiture assignments, due diligence and valuation assignments, project and corporate  
16 finance services, and transaction support services. In addition, Concentric provides  
17 litigation support services on a wide range of financial and economic issues on behalf of  
18 clients throughout North America.

## 19 II. PURPOSE OF TESTIMONY

20 **Q. What is the purpose of your direct testimony?**

21 A. The purpose of my direct testimony is to provide my assessment and recommendation  
22 pertaining to the reasonableness of Ameren Service Company’s (“AMS”) services and  
23 associated costs billed to Ameren Missouri during calendar year 2021. I will also address

1 the information Ameren Missouri is continuing to provide in this docket as it did when  
2 required to do so in its last rate review by the terms of the Second Non-Unanimous  
3 Stipulation and Agreement, filed in that case (File No. ER-2019-0335).

4 **III. OVERVIEW OF AMEREN MISSOURI AND KEY AFFILIATES FROM**  
5 **WHICH IT RECEIVES OR TO WHICH IT PROVIDES SERVICES**

6 **Q. Please provide an overview of Ameren Missouri.**

7 A. Ameren Missouri is an operating energy company that is a subsidiary of Ameren  
8 Corporation. The Company provides energy to more than 1.2 million electric and 130,000  
9 natural gas customers in central and eastern Missouri. The Company's service area covers  
10 64 counties and more than 500 communities, including the greater St. Louis area.

11 **Q. Please describe Ameren Corporation.**

12 A. Ameren Corporation ("AMC") is the parent company of Ameren Missouri. AMC was  
13 formed in 1997 as a result of the merger of Union Electric Company and Central Illinois  
14 Public Service Company ("CIPS"). In its 1997 order approving the merger of Union  
15 Electric and CIPS, the Missouri Commission also approved the formation of AMS, which  
16 is a centralized service company that provides various corporate support services to AMC  
17 affiliates at cost.

18 In 2003, AMC acquired Cilcorp, and its operating utility Central Illinois Light  
19 Company. AMC acquired Illinois Power Company from Dynegy in 2004. AMC's Illinois  
20 utilities merged to become Ameren Illinois Company ("AIC") in 2010.

21 Presently, AMC's operations consist of rate regulated utilities operating in  
22 Missouri, Illinois, and in interstate commerce under the jurisdiction of the FERC.

1 **Q. Does Ameren Missouri receive services from AMC?**

2 A. No. AMC has no employees and provides no services to Ameren Missouri, but shares in  
3 certain costs and benefits due to owning 100% of Ameren Missouri's stock.

4 **IV. SERVICES PROVIDED BY AMS TO AMEREN MISSOURI**

5 **Q. Please describe AMS.**

6 A. AMS is a service company that was originally formed to take advantage of synergies  
7 gained by eliminating redundant functions at both Ameren Missouri and CIPS, subsequent  
8 to their merger that could more cost-effectively be combined into one service company.

9 **Q. Was the formation of the service company required by law?**

10 A. Yes. The Public Utility Holding Company Act of 1935 ("PUHCA") directed the United  
11 States Securities and Exchange Commission ("SEC") to flatten the corporate structure of  
12 utilities to remove unnecessary corporate layers. Individual operating utility companies  
13 were required to centralize certain business operations into central service companies, but  
14 all service companies would be subject to SEC and Federal Power Commission regulation.  
15 In 1977, the Federal Power Commission was replaced by the FERC.

16 At the time of Ameren's formation, PUHCA required the utilization of such a  
17 service company and required that services be provided at cost. As a result, when a state  
18 utility commission regulated a utility in a particular state, the ratepayers of that state would  
19 pay only the share of any common service company expenses associated with that state's  
20 electric company allocated to it under SEC-approved formulas to prevent a holding  
21 company from double recovering its expenses when it operates in more than one state and  
22 to ensure each state paid its fair share of costs.

1           Although PUHCA has now been largely repealed, some functions formerly  
2 assigned to the SEC under PUHCA were transferred to the FERC at the time of the PUHCA  
3 repeal by Congress' adoption of the Energy Policy Act of 2005 ("Act"). FERC regulations  
4 adopted under that Act continue to require the use of cost-based pricing for service  
5 companies.<sup>1</sup>

6 **Q. Did the Commission approve the merger of Union Electric and CIPS, as well as the**  
7 **formation of AMS?**

8 A. Yes. In Case No. EM-96-149, the Commission approved the merger of Ameren Missouri  
9 (then doing business as Union Electric) and CIPS that resulted in the formation of AMS.

10 The Commission's order stated:

11           In addition, the Commission finds the proposed merger transaction,  
12 as reflected in the contractual agreement contained as a part of the  
13 Union Electric Company filing of November 7, 1995, and subject to  
14 the conditions and modifications as set out in the above Stipulation  
15 and Agreement, is not detrimental to the public interest.

16           The Stipulation and Agreement approved by the order specifically referenced the  
17 General Services Agreement ("GSA") under which AMS agreed to provide Ameren  
18 Missouri corporate support services at cost. The Stipulation states that a "Utility Service  
19 Company" will "provide administrative and general or operating services to UE and [its  
20 affiliates]" and defines "Service Agreement" as the GSA between AMS and its affiliates.  
21 That GSA was part of the record before the Commission in the merger case. While the  
22 Commission did not explicitly use the words "we hereby approve the formation of AMS,"  
23 the Commission approved the merger that created the corporate structure that included

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<sup>1</sup> 18 CFR § 35.44 – Protection against affiliate cross-subsidization. Section (b)(3) of the rule states: "A franchised public utility that has captive customers or that owns or provides transmission service over jurisdictional transmission facilities, may only purchase or receive non-power goods and services from a centralized service company at cost."

1 AMS and AMS's provision of services to Ameren Missouri and the other affiliates, and  
2 clearly understood that AMS would provide services under the GSA at cost.

3 **Q. What services does AMS provide to Ameren Missouri?**

4 A. AMS provides administrative support services. AMS' services include typical corporate  
5 functions such as accounting, legal, environmental, building management, information  
6 technology, etc. The preponderance of transactions from AMS to Ameren Missouri,  
7 pertain to corporate shared services provided by AMS.

8 **Q. How does Ameren Missouri determine both the services to procure from AMS, and  
9 the extent of the services it will receive from AMS?**

10 A. As discussed in the direct testimony of Ameren Missouri witness Laura M. Moore, Ameren  
11 Missouri and AMS follow, on an ongoing basis, a Joint Planning and Procurement process  
12 and a Demand Planning process. These processes, which are followed in concert with the  
13 other, are used during each budget cycle and include ongoing reviews of AMS services and  
14 spend as each budget year progresses. Under those processes, Ameren Missouri  
15 determines its need for various services, the value of those services, and the level of the  
16 services it will receive from AMS.

17 **Q. Does Ameren Missouri also have the option to self-provide or use a third-party to  
18 provide some or all of these services?**

19 A. Yes, except for those services that necessarily arise from AMC's status as a publicly traded  
20 company that owns 100% of Ameren Missouri's stock, Ameren Missouri has the option to  
21 self-provide a service, utilize the service of a non-affiliated service provider, or retain AMS  
22 to provide defined services.

23 **Q. Are the services provided by AMS to Ameren Missouri necessary and appropriate?**



1 A. Yes. The services that Ameren Missouri receives from AMS are both necessary and  
2 appropriate. The manner in which the services are provided to Ameren Missouri by AMS  
3 is consistent with how numerous other regulated utility companies obtain such services.

4 **Q. Are the services provided by AMS to Ameren Missouri covered by a Cost Allocation**  
5 **Manual (“CAM”)?**

6 A. Yes. The manner by which AMS’ services are provided and charged to Ameren Missouri  
7 is set forth in the GSA, which is also included as an appendix in the CAM. Among other  
8 things, the GSA or the CAM:

- 9 • Requires the services be provided at cost;
- 10 • Codifies recordkeeping and access to records requirements, including documentation  
11 of affiliate transactions, and the continued provision of detailed affiliate transaction  
12 reporting for all products and services provided by AMS (and other affiliates), not  
13 just to Ameren Missouri, but to all AMC affiliates;
- 14 • Codifies certain detailed reporting requirements;
- 15 • Requires that all affiliate transactions be conducted under a written contract between  
16 Ameren Missouri and AMS; and
- 17 • Requires the formation and implementation of an Ameren Missouri CAM Team to  
18 aid in Ameren Missouri’s compliance with the Affiliate Transactions Rules.

19 **Q. Are the services provided by AMS to Ameren Missouri the same as those which AMS**  
20 **provides to Ameren Illinois?**

21 A. Yes. The services provided by AMS to Ameren Missouri and Ameren Illinois are  
22 essentially the same.

23 **Q. Are service companies, such as AMS, common in the energy industry?**

1 A. Yes. As a result of industry mergers and acquisitions, many stand-alone, single  
2 jurisdictional energy companies have merged or been acquired. In an effort to increase  
3 efficiencies, ensure consistent practices throughout the organization, and reduce costs, the  
4 post-merger integration of common functions at an affiliated service company has been a  
5 common trend throughout the United States. Service companies similar to AMS file Form  
6 60 annual reports with the FERC. The Form 60 report is an annual regulatory support  
7 requirement under 18 CFR 369.1 for centralized service companies. The report is designed  
8 to collect financial information from centralized service companies subject to the  
9 jurisdiction of the FERC.

10 **Q. Have you prepared a Schedule identifying the service companies which filed a Form**  
11 **60 annual report, and the affiliated companies to which the service companies**  
12 **provided services, and the services provided?**

13 A. Yes, I have included this information in Schedule JJR-D2.

14 **Q. Please describe what Schedule JJR-D2 shows.**

15 A. Schedule JJR-D2 identifies the service companies and affiliated companies to which  
16 services are provided, as well as the services provided to the affiliated companies.  
17 Schedule JJR-D2 shows that 40 utility service companies filed FERC Form 60 annual  
18 reports in 2021. Reviewing these reports, the service companies provided services to 816  
19 affiliated companies, including many regulated utilities.

20 **Q. Based upon your review of the scope of services offered by AMS to Ameren Missouri,**  
21 **are the services provided consistent with those of other service companies in the**  
22 **energy industry?**

1 A. Yes. In my experience, the services provided by AMS to Ameren Missouri are consistent  
2 with those provided by other service companies to affiliated regulated utilities. Schedule  
3 JJR-D2 further supports my experience and conclusion.

4 **Q. Based upon your experience, is the use of the shared services model prevalent today**  
5 **in the energy industry?**

6 A. Yes. Based upon both my personal knowledge of the energy industry, as well as the  
7 number of Form 60 reports filed with the FERC, service companies continue to be widely  
8 used throughout the energy industry in the United States.

9 **Q. To what do you attribute the extensive use of service companies?**

10 A. Beyond the fact that the PUHCA required the use of service companies, many of the  
11 mergers that have been consummated in the energy industry have been premised, in part,  
12 upon the realization that the combined companies could produce savings from the  
13 elimination of duplication in public company functions and “back room”, non-customer-  
14 facing corporate functions. There are economies of scale that can be achieved by  
15 eliminating duplicative roles and functions when two companies merge (e.g., one  
16 accounting, human resources, information technology, procurement, etc. function).  
17 Further, the merged companies would most likely be able to perform required tasks with  
18 fewer staff than the individual operating companies were able to achieve. This approach  
19 benefits the holding company (here AMC) and the customers of its operating utilities  
20 (including Ameren Missouri) alike because between rate reviews the lower overall costs  
21 the service company delivers inures to the benefit of shareholders and ultimately to the  
22 benefit of customers in the form of lower cost of service and rates.

1 V. COST OF AMS' SERVICES

2 Q. Does AMS direct charge for its services when the service is only to one affiliate?

3 A. Yes, it does.

4 Q. When the direct assignment of costs is not possible, are AMS' services provided to  
5 Ameren Missouri and its other affiliated companies at the fully distributed cost of  
6 providing those services?

7 A. Yes, they are (and that is true for directly charged services as well). All costs incurred by  
8 AMS are either directly charged (when the cost applies only to one affiliate) or allocated  
9 using a service request system, but regardless of how the cost of the services are charged,  
10 they are always priced at AMS's fully distributed cost with no mark-up or profit  
11 component.

12 Q. How does the Commission's affiliate transaction rule, 20 CSR 4240-20.015, define  
13 "fully distributed cost" or "FDC"?

14 A. Section (1)(F) of the Rule defines fully distributed cost as "a methodology that examines  
15 all costs of an enterprise in relation to all the goods and services that are produced. FDC  
16 requires recognition of all costs incurred directly or indirectly used to produce a good or  
17 service. Costs are assigned either through a direct or allocated approach. Costs that cannot  
18 be directly assigned or indirectly allocated (e.g., general and administrative) must also be  
19 included in the FDC calculation through a general allocation."

20 Q. Does Ameren Services Company profit from the services provided to its affiliated  
21 companies?

22 A. No. All AMS charges reflect the direct cost of providing that service or product. There is  
23 no profit margin built into the charges, and AMS operates on a zero-profit basis.

1 **Q. Are the costs of AMS's services the same as if Ameren Missouri were to self- provide**  
2 **the services?**

3 A. The services are, at worst, the same as if Ameren Missouri were to self-provide the services.  
4 It is more likely, however, that due to the economies of scale realized by centralizing the  
5 shared services at AMS, the services are provided at a cost lower than if Ameren Missouri  
6 were to self-provide the services on a stand-alone basis.

7 **Q. Please explain.**

8 A. There are inherent efficiencies realized by consolidating common functions at one  
9 company, as opposed to requiring each operating company to individually perform each  
10 service. Given that AMS provides similar services to Ameren Missouri, AIC, and other  
11 affiliated companies, AMS is likely able to perform the required services with fewer  
12 personnel, and thus at a lower cost, than if each AMC subsidiary were to be individually  
13 fully staffed to provide all services. In other words, there are economies of scale realized  
14 by consolidating similar functions across the AMC companies.

15 **Q. Based upon your review of the manner by which AMS charges Ameren Missouri for**  
16 **its services, can you conclude that AMS's costs are market based?**

17 A. Yes. AMS is a large scale, efficient organization which provides services at cost, without  
18 mark-up or profit, where the costs consist primarily of the wages, salaries and benefits of  
19 AMS employees. The wages, salaries and benefits AMS pays and provides are market  
20 based. Therefore, it is reasonable to conclude that AMS's costs are market based.

21 **Q. Please explain.**

1 A. The cost of goods and services provided by AMS to its affiliated companies consists of  
2 two primary cost components – (1) wages and benefits of AMS employees and (2) goods  
3 and materials.

4 With regard to wages and benefits, employees of AMC subsidiaries receive  
5 market-based wages and benefits. To ensure that the employees are provided a  
6 reasonable compensation package, the AMS Human Resources Department routinely  
7 benchmarks total compensation packages (i.e., wages and benefits) against local, regional  
8 and national companies. Its goal is to provide a total compensation package that  
9 represents the median of the market (i.e., 50<sup>th</sup> percentile). Therefore, the total cost of  
10 Ameren Missouri's and AMS' total wages and benefits are reflective of the market.  
11 Ameren witness Kelly Hasenfratz discussed how the Company establishes market-based  
12 total compensation and benefits in her direct testimony filed in File No. ER-2019-0335  
13 and has confirmed that the testimony in that proceeding still holds true today.

14 Further, AMS provides its goods and services to Ameren Missouri at cost (i.e.,  
15 without mark-up or profit). All other non-affiliated service providers' services would  
16 include a mark-up and/or profit component in the pricing of their goods and services.  
17 In addition, AMS' procurement of labor and other goods and services at market prices  
18 and its subsequent charging for its services at cost means that the cost of goods and  
19 services provided to Ameren Missouri by AMS can reasonably be concluded to be both  
20 priced at or below market and priced at cost. This is because the wages and benefits paid  
21 to all employees of the Ameren companies are benchmarked at the 50<sup>th</sup> percentile of  
22 market and, similarly, AMS uses procurement procedures and policies for non-employee-  
23 related costs also designed to ensure that good and services are obtained at market prices.

1 **Q. What additional steps has Ameren Missouri taken to ensure the reasonableness of the**  
2 **cost of services provided to it by AMS?**

3 A. Ameren Missouri has formed a CAM team and meets extensive reporting and  
4 recordkeeping requirements, going well beyond existing legislative and regulatory  
5 requirements, to continually oversee the dealings between AMS and Ameren Missouri. In  
6 my experience, Ameren Missouri is going beyond typical practices in overseeing such  
7 dealings including by use of a dedicated team to oversee CAM compliance, as well as with  
8 its reporting activities to monitor and enforce compliance with the requirements set forth  
9 in the CAM.

10 **Q. Do you believe that Ameren Missouri would be able to procure the services provided**  
11 **by AMS from an unaffiliated company at a lower cost?**

12 A. No. AMS follows well-established and well-designed procurement policies and procedures  
13 that provide for solicitation of competitive bids when appropriate so that it is obtaining  
14 qualified service providers and other goods it needs to provide its services at reasonable,  
15 market-based prices. Given that AMS provides its services to Ameren Missouri at cost,  
16 and that it benchmarks its wages, salaries and benefits to the market, I do not believe that  
17 Ameren Missouri could procure its services at a lower cost from a non-affiliated service  
18 provider.

19 **Q. Are there examples of services that AMS has outsourced, on behalf of Ameren**  
20 **Missouri, to a non-affiliated service provider?**

21 A. Yes. Examples of services outsourced by AMS, on behalf of Ameren Missouri, include  
22 lock box services, administrative work involving buying, selling, and registering shares of  
23 Ameren stock, printing and distribution of customer bills, certain vegetation management

1 services, and janitorial services. AMS also uses outside services and suppliers in some  
2 instances as it provides its services to the affiliates when specialized knowledge or  
3 expertise is needed, or to supplement AMS employee resources when appropriate.

4 **Q. Are there Missouri legal requirements that govern a utility's transactions with**  
5 **affiliated companies?**

6 A. Yes, 20 CSR 4240-20.015 and 20 CSR 4240-40.015 set out the Commission's rules for  
7 affiliated transactions for electric and gas utilities, respectively. Ameren Missouri is both  
8 an electric and gas utility, and the Company's CAM applies to both electric and gas utility  
9 affiliate transactions. The rules are intended to prevent regulated utilities from subsidizing  
10 their nonregulated operations. Put another way and as I discuss below, the regulations are  
11 designed to prevent unfair preferential treatment of affiliates to the detriment of the  
12 Company's customers. In order to accomplish this objective, the rule sets forth financial  
13 and evidentiary standards and recordkeeping requirements applicable to any Commission-  
14 regulated electrical corporation whenever such corporation participates in transactions with  
15 any affiliated entity (except with regard to HVAC services as defined in section 386.754,  
16 RSMo.). The rule and its effective enforcement are intended to provide the public with the  
17 assurance that their rates are not adversely impacted by the utilities' nonregulated activities.

18 **Q. Has the Commission described the intent of the affiliate transaction rules in prior**  
19 **orders?**

20 A. Yes, on at least two occasions in recent years. In its July 1, 2008 Report and Order in File  
21 No. EM-2007-0374, the Commission granted KCPL - Greater Missouri Operations  
22 ("GMO") (now Evergy Missouri West) and KCP&L (now Evergy Missouri Metro) a  
23 variance to the Affiliate Transactions Rule for all transactions between GMO and KCP&L,



1 except for wholesale power transactions, which would be based on rates approved by the  
2 FERC. At page 264, of the Commission’s Report and Order, it noted that “the purpose of  
3 the Commission’s Affiliate Transactions Rule is to prevent cross-subsidization of regulated  
4 utility’s non-regulated operations, not to prevent transactions at cost between two regulated  
5 affiliates.” In 2018 when the Commission approved the merger of Great Plains Energy  
6 (KCP&L’s and GMO’s parent) and Westar Energy, it essentially extended that variance to  
7 Westar Energy, KCP&L and GMO’s affiliated utility in Kansas operating under the  
8 supervision of the Kansas Corporation Commission.<sup>2</sup>

9 **Q. Is it possible that by centralizing the shared services Ameren Missouri could**  
10 **potentially be subsidizing non-regulated affiliates?**

11 A. No. First, AMC has no material non-regulated operations. Second, as previously  
12 mentioned, AMS’ services are provided at cost, which is determined by prevailing  
13 wages/benefits and actual incurred expenses. Therefore, there is no issue of potential  
14 subsidies from ratepayers to unregulated affiliates. The pricing of affiliated services only  
15 has a material effect on which jurisdiction’s customers are responsible for, and benefit  
16 from, the cost of providing a service. Essentially, all costs are attributable to one set of  
17 regulated customers or the other (i.e., Ameren Missouri versus AIC versus ATXI). Put  
18 another way, the cost standard for affiliate transactions is appropriate because the question  
19 being addressed is what costs (which are in any event consistent with the market) should  
20 be included in the rates for each set of customers in the AMC utility family.

21 **Q. Are AMS’ costs billed to affiliated companies subject to regulatory review other than**  
22 **by the Missouri Commission?**

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<sup>2</sup> File No. EM-2018-0012

1 A. Yes. AMS' costs billed to its affiliated FERC rate regulated subsidiaries have been, and  
2 continue to be, reviewed by the FERC. The FERC audit staff has not found any significant  
3 deficiencies in in its most recent audit and the FERC has never disallowed any of AMS'  
4 charges to the Company's transmission customers.<sup>3</sup>

5 The Illinois Commerce Commission ("ICC") also reviews AMS' charges to AIC  
6 during rate proceedings. The ICC has approved AMS' charges, as well as the allocation  
7 methodology, which reflects fully distributed cost.

8 **Q. What do AMS' costs consist of?**

9 A. The majority of AMS costs are non-fuel operations and maintenance ("O&M") costs, with  
10 more than 92% of those costs consisting of administrative and general ("A&G") costs.  
11 AMS also performs services, the cost of which is capitalized on the receiving affiliates'  
12 books.

13 **Q. In your opinion, would a reasonable manager, in possession of and with regard for  
14 the relevant facts, select AMS to provide these services?**

15 A. Yes. In reaching that conclusion, the facts that would influence the decision maker are:  
16 • AMS has provided these services every year for approximately 25 years and is uniquely  
17 qualified to provide continuity of accounting, human resources, legal, payroll,  
18 information technology and other services that if Ameren Missouri were a standalone  
19 company, Ameren Missouri would have to provide for/or obtain for itself;  
20 • As explained in the next section of my testimony, AMS has achieved significant  
21 reductions (in real terms) in the cost of providing these services;

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<sup>3</sup> The audit in Docket No. FA10-3-000 identified two immaterial AMS accounting items affecting the Company's tariff billings. The costs disallowed were for lobbying and charitable contributions recorded to O&M accounts that should have been recorded to account 426.1, a below-the-line accounts, which is not an includible account in the Midwest ISO Attachment O template.



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;

1 • Customers of Ameren Missouri have benefited from the existence of, and services  
2 provided by, AMS.

3 **Q. Please summarize what information was relied upon to form the basis of your**  
4 **opinions on prudence and reasonableness.**

5 A. The support I have relied on in arriving at my opinions in this case includes:

6 • My own analysis of utility holding companies, service companies, Ameren Missouri's  
7 A&G costs over time, and my benchmarking of Ameren Missouri's non-fuel O&M and  
8 A&G costs versus national averages and Midwest utilities presented in my direct  
9 testimony.

10 • Multiple versions of Ameren Missouri's Cost Allocation Manual.

11 • Documentation pertinent to the Joint Planning and Procurement and Demand Planning  
12 Processes for 2020 and 2021, and Ms. Moore's direct testimony in this case discussing  
13 those processes.

14 • All the testimony submitted in Ameren Missouri's recent electric rate cases (File  
15 No. ER-2019-0335 and ER-2021-0240) on affiliate transactions, including Ameren  
16 Missouri's filed testimony of Mr. Tom Byrne, Ms. Laura Moore, Mr. Ben Hasse,  
17 Ms. Kelly Hasenfratz and Mr. Mitchell Lansford, Staff testimony of Mr. Mark  
18 Oligshlaeger and Ms. Kimberly K. Bolin, and the testimony of the Office of Public  
19 Counsel witness Mr. Schallenberg.

20 • All of the data request responses provided on the topic of affiliate transaction costs and  
21 compliance in the electric rate case, which includes a very large volume of material on  
22 the following topics:

23 ○ Details of numerous affiliate transactions

- 1                   ○ Ameren Missouri’s corporate policies and procedures for purchasing such
- 2                   services
- 3                   ○ Ameren Missouri’s and AMS’s bidding procedures
- 4                   ○ Organization charts for Ameren Missouri and its affiliates
- 5                   ○ Information on shared employees
- 6                   ○ Ameren Missouri’s Joint Planning and Procurement procedure
- 7                   ○ Vendor lists and information for Ameren Missouri and AMS
- 8                   ○ Details of corporate contracts for AMS
- 9                   ○ Details of real estate transactions and costs for Ameren Missouri
- 10                  ○ Cost allocation methodologies
- 11                  ○ Compensation studies
- 12                  ○ Tax allocation agreements
- 13                  ○ Employee training processes
- 14                  ○ Audits of affiliate transactions
- 15                  ○ Determinations of the fair market price
- 16                  ○ AMS’s and Ameren Missouri’s budgeting processes
- 17                  ● All of the testimony submitted in the CAM docket (File No. EO-2017-0176) including
- 18                  the testimony of Mr. Hasse, Ms. Moore and Mr. Byrne
- 19                  ● All of the data requests responses provided in the CAM docket, which represent another
- 20                  very large volume of information on affiliate transactions, compliance procedures, cost
- 21                  benchmarking and many other topics
- 22                  ● All of the similar material filed in Ameren Missouri’s recent gas rate case (File No.
- 23                  GR-2021-0241)

- 1 • All of the filings in the Commission’s recent affiliate transactions rule workshop (File  
2 No. AW-2018-0394)
- 3 • Regulatory actions for past Ameren Missouri rate cases and in past rate cases for its  
4 utility affiliates, all of which provided for cost recovery for affiliate provided A&G  
5 services (e.g., File No. ER-2016-0179 and Illinois Commerce Commission Docket No.  
6 16-0262))
- 7 • The Commission’s decisions in similar cases for other Missouri utilities, including  
8 cases for KCP&L (File Nos. EM-2007-0374 and EE-2017-0113), Laclede Gas (File  
9 No. GR-2017-0215), and Empire District Electric (File No. AO-2012-0062)
- 10 • Missouri and federal statutes relating to the treatment of costs of affiliate transactions

11 In aggregate, my testimony reflects my review of thousands of pages of material in  
12 preparing the opinions expressed in my testimony, and my 44 years of experience in utility  
13 regulation.

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

15 **A.** Yes, it does.

## **JOHN J. REED**

Chairman and Chief Executive Officer

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Mr. Reed is a financial and economic consultant with more than 44 years of experience in the energy industry. Mr. Reed has also been the CEO of an NASD member securities firm, and Co-CEO of the nation's largest publicly traded management consulting firm (NYSE: NCI). He has provided advisory services in the areas of mergers and acquisitions, asset divestitures and purchases, strategic planning, project finance, corporate valuation, energy market analysis, rate and regulatory matters and energy contract negotiations to clients across North and Central America. Mr. Reed's comprehensive experience includes the development and implementation of nuclear, fossil, and hydroelectric generation divestiture programs with an aggregate valuation in excess of \$20 billion. Mr. Reed has also provided expert testimony on financial and economic matters on more than 400 occasions before the FERC, Canadian regulatory agencies, state utility regulatory agencies, various state and federal courts, and before arbitration panels in the United States and Canada. After graduation from the Wharton School of the University of Pennsylvania, Mr. Reed joined Southern California Gas Company, where he worked in the regulatory and financial groups, leaving the firm as Chief Economist in 1981. He served as an executive and consultant with Stone & Webster Management Consulting and R.J. Rudden Associates prior to forming REED Consulting Group (RCG) in 1988. RCG was acquired by Navigant Consulting in 1997, where Mr. Reed served as an executive until leaving Navigant to join Concentric as Chairman and Chief Executive Officer.

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## **REPRESENTATIVE PROJECT EXPERIENCE**

### Executive Management

- As an executive-level consultant, worked with CEOs, CFOs, other senior officers, and Boards of Directors of many of North America's top electric and gas utilities, as well as with senior political leaders of the U.S. and Canada on numerous engagements over the past 25 years. Directed merger, acquisition, divestiture, and project development engagements for utilities, pipelines and electric generation companies, repositioned several electric and gas utilities as pure distributors through a series of regulatory, financial, and legislative initiatives, and helped to develop and execute several "roll-up" or market aggregation strategies for companies seeking to achieve substantial scale in energy distribution, generation, transmission, and marketing.

### Financial and Economic Advisory Services

- Retained by many of the nation's leading energy companies and financial institutions for services relating to the purchase, sale or development of new enterprises. These projects included major new gas pipeline projects, gas storage projects, several non-utility generation projects, the purchase and sale of project development and gas marketing firms, and utility acquisitions. Specific services provided include the development of corporate expansion plans, review of acquisition candidates, establishment of divestiture standards, due diligence on



acquisitions or financing, market entry or expansion studies, competitive assessments, project financing studies, and negotiations relating to these transactions.

#### Litigation Support and Expert Testimony

- Provided expert testimony on more than 400 occasions in administrative and civil proceedings on a wide range of energy and economic issues. Clients in these matters have included gas distribution utilities, gas pipelines, gas producers, oil producers, electric utilities, large energy consumers, governmental and regulatory agencies, trade associations, independent energy project developers, engineering firms, and gas and power marketers. Testimony has focused on issues ranging from broad regulatory and economic policy to virtually all elements of the utility ratemaking process. Also frequently testified regarding energy contract interpretation, accepted energy industry practices, horizontal and vertical market power, quantification of damages, and management prudence. Has been active in regulatory contract and litigation matters on virtually all interstate pipeline systems serving the U.S. Northeast, Mid-Atlantic, Midwest, and Pacific regions.
- Also served on FERC Commissioner Terzic's Task Force on Competition, which conducted an industry-wide investigation into the levels of and means of encouraging competition in U.S. natural gas markets and served on a "Blue Ribbon" panel established by the Province of New Brunswick regarding the future of natural gas distribution service in that province.

#### Resource Procurement, Contracting and Analysis

- On behalf of gas distributors, gas pipelines, gas producers, electric utilities, and independent energy project developers, personally managed or participated in the negotiation, drafting, and regulatory support of hundreds of energy contracts, including the largest gas contracts in North America, electric contracts representing billions of dollars, pipeline and storage contracts, and facility leases.
- These efforts have resulted in bringing large new energy projects to market across North America, the creation of hundreds of millions of dollars in savings through contract renegotiation, and the regulatory approval of a number of highly contested energy contracts.

#### Strategic Planning and Utility Restructuring

- Acted as a leading participant in the restructuring of the natural gas and electric utility industries over the past fifteen years, as an adviser to local distribution companies, pipelines, electric utilities, and independent energy project developers. In the recent past, provided services to most of the top 50 utilities and energy marketers across North America. Managed projects that frequently included the redevelopment of strategic plans, corporate reorganizations, the development of multi-year regulatory and legislative agendas, merger, acquisition and divestiture strategies, and the development of market entry strategies. Developed and supported merchant function exit strategies, marketing affiliate strategies, and detailed plans for the functional business units of many of North America's leading utilities.





## **PROFESSIONAL HISTORY**

### **Concentric Energy Advisors, Inc. (2002 – Present)**

Chairman and Chief Executive Officer

### **CE Capital Advisors (2004 – Present)**

Chairman, President, and Chief Executive Officer

### **Navigant Consulting, Inc. (1997 – 2002)**

President, Navigant Energy Capital (2000 – 2002)

Executive Director (2000 – 2002)

Co-Chief Executive Officer, Vice Chairman (1999 – 2000)

Executive Managing Director (1998 – 1999)

President, REED Consulting Group, Inc. (1997 – 1998)

### **REED Consulting Group (1988 – 1997)**

Chairman, President and Chief Executive Officer

### **R.J. Rudden Associates, Inc. (1983 – 1988)**

Vice President

### **Stone & Webster Management Consultants, Inc. (1981 – 1983)**

Senior Consultant

Consultant

### **Southern California Gas Company (1976 – 1981)**

Corporate Economist

Financial Analyst

Treasury Analyst

## **EDUCATION**

### **Wharton School, University of Pennsylvania**

B.S., Economics and Finance, 1976

Licensed Securities Professional: NASD Series 7, 63, 24, 79 and 99 Licenses

## **BOARDS OF DIRECTORS (PAST AND PRESENT)**

Concentric Energy Advisors, Inc.

Navigant Consulting, Inc.

Navigant Energy Capital

Nukem, Inc.

New England Gas Association

R. J. Rudden Associates

REED Consulting Group



## **AFFILIATIONS**

American Gas Association  
Energy Bar Association  
Guild of Gas Managers  
International Association of Energy Economists  
Northeast Gas Association  
Society of Gas Lighters  
Society of Utility and Regulatory Financial Analysts

## **ARTICLES AND PUBLICATIONS**

“Maximizing U.S. federal loan guarantees for new nuclear energy,” Bulletin of the Atomic Scientists  
(with John C. Slocum), July 29, 2009

“Smart Decoupling – Dealing with unfunded mandates in performance-based ratemaking,” Public  
Utilities Fortnightly, May 2012



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>Alaska Regulatory Commission</b>				
Chugach Electric	12/86	Chugach Electric	U-86-11	Cost Allocation
Chugach Electric	5/87	Enstar Natural Gas Company	U-87-2	Tariff Design
Chugach Electric	12/87	Enstar Natural Gas Company	U-87-42	Gas Transportation
Chugach Electric	11/87 2/88	Chugach Electric	U-87-35	Cost of Capital
Anchorage Municipal Light & Power	9/17	Anchorage Municipal Light & Power	U-16-094 U-17-008	Project Prudence
Municipality of Anchorage ("MOA") d/b/a Municipal Light and Power	8/19 10/19	Municipality of Anchorage ("MOA") d/b/a Municipal Light and Power	U-18-102 U-19-020 U-19-021	Merger Standard for Approval
<b>Alberta Utilities Commission</b>				
Alberta Utilities (AltaLink, EPCOR, ATCO, ENMAX, FortisAlberta, AltaGas)	1/13	Alberta Utilities	Application 1566373, Proceeding ID 20	Stranded Costs
<b>Arizona Corporation Commission</b>				
Tucson Electric Power	7/12	Tucson Electric Power	E-01933A-12-0291	Cost of Capital
UNS Energy and Fortis Inc.	1/14	UNS Energy, Fortis Inc.	E-04230A-00011 E-01933A-14-0011	Merger
<b>California Energy Commission</b>				
Southern California Gas Co.	8/80	Southern California Gas Co.	80-BR-3	Gas Price Forecasting



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>California Public Utility Commission</b>				
Southern California Gas Co.	3/80	Southern California Gas Co.	TY 1981 G.R.C.	Cost of Service, Inflation
Pacific Gas Transmission Co.	10/91 11/91	Pacific Gas & Electric Co.	App. 89-04-033	Rate Design
Pacific Gas Transmission Co.	7/92	Southern California Gas Co.	A. 92-04-031	Rate Design
San Diego Gas & Electric Company	4/19 8/19	San Diego Gas & Electric Company	A. 19-04-017	Risk Premium, Return on Equity
<b>Colorado Public Utilities Commission</b>				
AMAX Molybdenum	2/90	Commission Rulemaking	89R-702G	Gas Transportation
AMAX Molybdenum	11/90	Commission Rulemaking	90R-508G	Gas Transportation
Xcel Energy	8/04	Xcel Energy	031-134E	Cost of Debt
Public Service Company of Colorado	6/17	Public Service Company of Colorado	17AL-0363G	Return on Equity (Gas)
<b>Connecticut Public Utilities Regulatory Authority</b>				
Connecticut Natural Gas	12/88	Connecticut Natural Gas	88-08-15	Gas Purchasing Practices
United Illuminating	3/99	United Illuminating	99-03-04	Nuclear Plant Valuation
Southern Connecticut Gas	2/04	Southern Connecticut Gas	00-12-08	Gas Purchasing Practices
Southern Connecticut Gas	4/05	Southern Connecticut Gas	05-03-17	LNG/Trunkline
Southern Connecticut Gas	5/06	Southern Connecticut Gas	05-03-17PH01	LNG/Trunkline



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Southern Connecticut Gas	8/08	Southern Connecticut Gas	06-05-04	Peaking Service Agreement
SJW Group and Connecticut Water Service	4/19	SJW Group and Connecticut Water Service	19-04-02	Customer Benefits, Public Interest
<b>District of Columbia PSC</b>				
Potomac Electric Power Company	3/99 5/99 7/99	Potomac Electric Power Company	945	Divestiture of Gen. Assets & Purchase Power Contracts
AltaGas Ltd./WGL Holdings	4/17 8/17 10/17	AltaGas Ltd./WGL Holdings	1142	Merger Standards, Public Interest Standard
<b>Federal Energy Regulatory Commission</b>				
Safe Harbor Water Power Corp.	8/82	Safe Harbor Water Power Corp.	-	Wholesale Electric Rate Increase
Western Gas Interstate Company	5/84	Western Gas Interstate Company	RP84-77	Load Forecast Working Capital
Southern Union Gas	4/87 5/87	El Paso Natural Gas Company	RP87-16-000	Take-or-Pay Costs
Connecticut Natural Gas	11/87	Penn-York Energy Corporation	RP87-78-000	Cost Allocation/Rate Design
AMAX Magnesium	12/88 1/89	Questar Pipeline Company	RP88-93-000	Cost Allocation/Rate Design
Western Gas Interstate Company	6/89	Western Gas Interstate Company	RP89-179-000	Cost Allocation/Rate Design, Open-Access Transportation
Associated CD Customers	12/89	CNG Transmission	RP88-211-000	Cost Allocation/Rate Design



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Utah Industrial Group	9/90	Questar Pipeline Company	RP88-93-000, Phase II	Cost Allocation/Rate Design
Iroquois Gas Trans. System	8/90	Iroquois Gas Transmission System	CP89-634-000/001 CP89-815-000	Gas Markets, Rate Design, Cost of Capital, Capital Structure
Boston Edison Company	1/91	Boston Edison Company	ER91-243-000	Electric Generation Markets
Cincinnati Gas and Electric Co., Union Light, Heat and Power Company, Lawrenceburg Gas Company	7/91	Texas Gas Transmission Corp.	RP90-104-000 RP88-115-000 RP90-192-000	Cost Allocation, Rate Design, Comparability of Service
Ocean State Power II	7/91	Ocean State Power II	ER89-563-000	Competitive Market Analysis, Self-dealing
Brooklyn Union/PSE&G	7/91	Texas Eastern	RP88-67, et al	Market Power, Comparability of Service
Northern Distributor Group	9/92 11/92	Northern Natural Gas Company	RP92-1-000, et al	Cost of Service
Canadian Association of Petroleum Producers and Alberta Pet. Marketing Comm.	10/92 7/97	Lakehead Pipeline Co. L.P.	IS92-27-000	Cost Allocation, Rate Design
Colonial Gas, Providence Gas	7/93 8/93	Algonquin Gas Transmission	RP93-14	Cost Allocation, Rate Design
Iroquois Gas Transmission	94	Iroquois Gas Transmission	RP94-72-000	Cost of Service, Rate Design
Transco Customer Group	1/94	Transcontinental Gas Pipeline Corporation	RP92-137-000	Rate Design, Firm to Wellhead
Pacific Gas Transmission	2/94 3/95	Pacific Gas Transmission	RP94-149-000	Rolled-In vs. Incremental Rates, Rate Design



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Tennessee GSR Group	1/95 3/95 1/96	Tennessee Gas Pipeline Company	RP93-151-000 RP94-39-000 RP94-197-000 RP94-309-000	GSR Costs
PG&E and SoCal Gas	8/96 9/96	El Paso Natural Gas Company	RP92-18-000	Stranded Costs
Iroquois Gas Transmission System, L.P.	97	Iroquois Gas Transmission System, L.P.	RP97-126-000	Cost of Service, Rate Design
BEC Energy - Commonwealth Energy System	2/99	Boston Edison Company/ Commonwealth Energy System	EC99-33-000	Market Power Analysis – Merger
Central Hudson Gas & Electric, Consolidated Co. of New York, Niagara Mohawk Power Corporation, Dynegy Power Inc.	10/00	Central Hudson Gas & Electric, Consolidated Co. of New York, Niagara Mohawk Power Corporation, Dynegy Power Inc.	EC01-7-000	Market Power 203/205 Filing
Wyckoff Gas Storage	12/02	Wyckoff Gas Storage	CP03-33-000	Need for Storage Project
Indicated Shippers/Producers	10/03	Northern Natural Gas	RP98-39-029	Ad Valorem Tax Treatment
Maritimes & Northeast Pipeline	6/04	Maritimes & Northeast Pipeline	RP04-360-000	Rolled-In Rates
ISO New England	8/04 2/05	ISO New England	ER03-563-030	Cost of New Entry
Transwestern Pipeline Company, LLC	9/06	Transwestern Pipeline Company, LLC	RP06-614-000	Business Risk



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Portland Natural Gas Transmission System	6/08	Portland Natural Gas Transmission System	RP08-306-000	Market Assessment, Natural Gas Transportation, Rate Setting
Portland Natural Gas Transmission System	5/10 3/11 4/11	Portland Natural Gas Transmission System	RP10-729-000	Business Risks, Extraordinary and Non-recurring Events  Pertaining to Discretionary Revenues
Morris Energy	7/10	Morris Energy	RP10-79-000	Impact of Preferential Rate
Gulf South Pipeline	10/14	Gulf South Pipeline	RP15-65-000	Business Risk, Rate Design
BNP Paribas Energy Trading, GP  South Jersey Resource Group, LLC	2/15	Transcontinental Gas Pipeline Corporation	RP06-569-008 RP07-376-005	Regulatory Policy, Incremental Rates, Stacked Rate
Tallgrass Interstate Gas Transmission, LLC	10/15 12/15	Tallgrass Interstate Gas Transmission, LLC	RP16-137-000	Market Assessment, Rate Design, Rolled-in Rate Treatment
Tennessee Valley Authority	2/21 3/21	Athens Utility Board, Gibson Electric Membership Corp., Joe Wheeler Electric Membership Corp., and Volunteer Energy Cooperative v. Tennessee Valley Authority	EL21-40-000 TX21-01-000	Public Policy, Competition, Economic Harm





SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>Florida Impact Estimating Conference</b>				
Florida Power and Light Co. on behalf of the Florida Investor-Owned Utilities	2/19 3/19	Florida Power and Light Co. on behalf of the Florida Investor-Owned Utilities	Right to Competitive Energy Market for Customers of Investor-Owned Utilities; Allowing Energy Choice	Economic and Financial Impact of Deregulation on Customers and Market Design and Function
<b>Florida Public Service Commission</b>				
Florida Power and Light Co.	10/07	Florida Power & Light Co.	070650-EI	Need for New Nuclear Plant
Florida Power and Light Co.	5/08	Florida Power & Light Co.	080009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/09 8/09	Florida Power & Light Co.	080677-EI	Benchmarking in Support of ROE
Florida Power and Light Co.	3/09 5/09 8/09	Florida Power & Light Co.	090009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/10 5/10 8/10	Florida Power & Light Co.	100009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/11 7/11	Florida Power & Light Co.	110009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/12 7/12	Florida Power & Light Co.	120009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/12 8/12	Florida Power & Light Co.	120015-EI	Benchmarking in Support of ROE
Florida Power and Light Co.	3/13 7/13	Florida Power & Light Co.	130009	New Nuclear Cost Recovery, Prudence



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Florida Power and Light Co.	3/14	Florida Power & Light Co.	140009	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/15 7/15	Florida Power & Light Co.	150009	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	10/15	Florida Power and Light Co.	150001	Recovery of Replacement Power Costs
Florida Power and Light Co.	3/16	Florida Power & Light Co.	160021-EI	Benchmarking in Support of ROE
Florida Power and Light Co.	3/21 7/21	Florida Power & Light Co.	20210015-EI	Benchmarking in Support of ROE
<b>Florida Senate Committee on Communication, Energy and Utilities</b>				
Florida Power and Light Co.	2/09	Florida Power & Light Co.	-	Securitization
<b>Hawai'i Public Utility Commission</b>				
Hawaiian Electric Light Company, Inc.	6/00	Hawaiian Electric Light Company, Inc.	99-0207	Standby Charge
NextEra Energy, Inc. Hawaiian Electric Companies	4/15 8/15 10/15	Hawaiian Electric Company, Inc.; Hawaii Electric Light Company, Inc., Maui Electric Company, Ltd., NextEra Energy, Inc.	2015-0022	Merger Application



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>Idaho Public Utilities Commission</b>				
Hydro One Limited and Avista Corporation	9/18 11/18	Hydro One Limited and Avista Corporation	AVU-E-17-09 AVU-G-17-05	Governance, Financial Integrity and Ring-fencing Merger Commitments
<b>Illinois Commerce Commission</b>				
Renewables Suppliers (Algonquin Power Co., EDP Renewables North America, Invenergy, NextEra Energy Resources)	3/14	Renewables Suppliers	13-0546	Application for Rehearing and Reconsideration, Long-term Purchase Power Agreements
WE Energies Corporation	8/14 12/14 2/15	WE Energies/Integrus	14-0496	Merger Application
<b>Indiana Utility Regulatory Commission</b>				
Northern Indiana Public Service Company	10/01	Northern Indiana Public Service Company	41746	Valuation of Electric Generating Facilities
Northern Indiana Public Service Company	1/08 3/08	Northern Indiana Public Service Company	43396	Asset Valuation
Northern Indiana Public Service Company	8/08	Northern Indiana Public Service Company	43526	Fair Market Value Assessment



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Indianapolis Power & Light Company	12/14	Indianapolis Power & Light Company	44576	Asset Valuation
Indianapolis Power & Light Company	12/16	Indianapolis Power & Light Company	44893	Rate Recovery for New Plant Additions, Valuation of Electric Generating Facilities
Indianapolis Power & Light Company D/B/A AES Indiana	8/21	Indianapolis Power & Light Company D/B/A AES Indiana	45591	Power Project Development and PPA Evaluation
<b>Iowa Utilities Board</b>				
Interstate Power and Light	7/05	Interstate Power and Light and FPL Energy Duane Arnold, LLC	SPU-05-15	Sale of Nuclear Plant
Interstate Power and Light	5/07	City of Everly, Iowa	SPU-06-5	Municipalization
Interstate Power and Light	5/07	City of Kalona, Iowa	SPU-06-6	Municipalization
Interstate Power and Light	5/07	City of Wellman, Iowa	SPU-06-10	Municipalization
Interstate Power and Light	5/07	City of Terril, Iowa	SPU-06-8	Municipalization
Interstate Power and Light	5/07	City of Rolfe, Iowa	SPU-06-7	Municipalization
<b>Kansas Corporation Commission</b>				
Great Plains Energy Kansas City Power and Light Company	1/17	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	16-KCPE-593-ACQ	Merger Standards, Acquisition Premium, Ring-Fencing, Public Interest Standard



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Great Plains Energy Kansas City Power and Light Company	8/17 2/18	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	18-KCPE-095-MER	Merger Standards, Transaction Value, Merger Benefits, Ring-Fencing,
<b>Maine Public Utility Commission</b>				
Northern Utilities	5/96	Granite State and PNGTS	95-480 95-481	Transportation Service and PBR
Maine Water Company	7/19 8/19	Maine Water Company	2019-00096	Merger Standards, Net Benefits to Customers, Ring-fencing
<b>Maryland Public Service Commission</b>				
Eastalco Aluminum	3/82	Potomac Edison	7604	Cost Allocation
Potomac Electric Power Company	8/99	Potomac Electric Power Company	8796	Stranded Cost & Price Protection
AltaGas Ltd./WGL Holdings	4/17 9/17 1/18 2/18	AltaGas Ltd./WGL Holdings	9449	Merger Standards, Public Interest Standard
Washington Gas Light Company	8/20	Washington Gas Light Company	9622	Regulatory Policy
<b>Massachusetts Department of Public Utilities</b>				
Haverhill Gas	5/82	Haverhill Gas	DPU #1115	Cost of Capital
New England Energy Group	1/87	Commission Investigation	-	Gas Transportation Rates
Energy Consortium of Mass.	9/87	Commonwealth Gas Company	DPU-87-122	Cost Allocation, Rate Design
Mass. Institute of Technology	12/88	Middleton Municipal Light	DPU #88-91	Cost Allocation, Rate Design



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Energy Consortium of Mass.	3/89	Boston Gas	DPU #88-67	Rate Design
PG&E Bechtel Generating Co./ Constellation Holdings	10/91	Commission Investigation	DPU #91-131	Valuation of Environmental Externalities
Coalition of Non-Utility Generators		Cambridge Electric Light Co. & Commonwealth Electric Co.	DPU 91-234 EFSC 91-4	Integrated Resource Management
The Berkshire Gas Company  Essex County Gas Company  Fitchburg Gas and Elec. Light Co.	5/92	The Berkshire Gas Company  Essex County Gas Company  Fitchburg Gas & Elec. Light Co.	DPU #92-154	Gas Purchase Contract Approval
Boston Edison Company	7/92	Boston Edison	DPU #92-130	Least Cost Planning
Boston Edison Company	7/92	The Williams/Newcorp Generating Co.	DPU #92-146	RFP Evaluation
Boston Edison Company	7/92	West Lynn Cogeneration	DPU #92-142	RFP Evaluation
Boston Edison Company	7/92	L'Energia Corp.	DPU #92-167	RFP Evaluation
Boston Edison Company	7/92	DLS Energy, Inc.	DPU #92-153	RFP Evaluation
Boston Edison Company	7/92	CMS Generation Co.	DPU #92-166	RFP Evaluation
Boston Edison Company	7/92	Concord Energy	DPU #92-144	RFP Evaluation



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
The Berkshire Gas Company Colonial Gas Company Essex County Gas Company Fitchburg Gas and Electric Company	11/93	The Berkshire Gas Company Colonial Gas Company Essex County Gas Company Fitchburg Gas and Electric Co.	DPU #93-187	Gas Purchase Contract Approval
Bay State Gas Company	10/93	Bay State Gas Company	93-129	Integrated Resource Planning
Boston Edison Company	94	Boston Edison	DPU #94-49	Surplus Capacity
Hudson Light & Power Department	4/95	Hudson Light & Power Dept.	DPU #94-176	Stranded Costs
Essex County Gas Company	5/96	Essex County Gas Company	96-70	Unbundled Rates
Boston Edison Company	8/97	Boston Edison Company	97-63	Holding Company Corporate Structure
Berkshire Gas Company	6/98	Berkshire Gas Mergeco Gas Co.	D.T.E. 98-87	Merger Approval
Eastern Edison Company	8/98	Montaup Electric Company	D.T.E. 98-83	Marketing for Divestiture of its Generation Business
Boston Edison Company	98	Boston Edison Company	D.T.E. 97-113	Fossil Generation Divestiture
Boston Edison Company	2/99	Boston Edison Company	D.T.E. 98-119	Nuclear Generation Divestiture
Eastern Edison Company	12/98	Montaup Electric Company	D.T.E. 99-9	Sale of Nuclear Plant
NStar	9/07 12/07	NStar, Bay State Gas, Fitchburg G&E, NE Gas, W. MA Electric	DPU 07-50	Decoupling, Risk



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
NStar	6/11	NStar, Northeast Utilities	DPU 10-170	Merger Approval
Town of Milford	1/19 3/19 5/19	Milford Water Company	DPU 18-60	Valuation Analysis
<b>Mass. Energy Facilities Siting Council</b>				
Mass. Institute of Technology	1/89	M.M.W.E.C.	EFSC-88-1	Least-Cost Planning
Boston Edison Company	9/90	Boston Edison	EFSC-90-12	Electric Generation Markets
Silver City Energy Ltd. Partnership	11/91	Silver City Energy	D.P.U. 91-100	State Policies, Need for Facility
<b>Michigan Public Service Commission</b>				
Detroit Edison Company	9/98	Detroit Edison Company	U-11726	Market Value of Generation Assets
Consumers Energy Company	8/06 1/07	Consumers Energy Company	U-14992	Sale of Nuclear Plant
WE Energies	12/11	Wisconsin Electric Power Co	U-16830	Economic Benefits, Prudence
Consumer Energy Company	7/13	Consumers Energy Company	U-17429	Certificate of Need, Integrated Resource Plan
WE Energies	8/14 3/15	WE Energies/Integrus	U-17682	Merger Application
<b>Minnesota Public Utilities Commission</b>				
Xcel Energy/No. States Power	9/04	Xcel Energy/No. States Power	G002/GR-04-1511	NRG Impacts
Interstate Power and Light	8/05	Interstate Power and Light and FPL Energy Duane Arnold, LLC	E001/PA-05-1272	Sale of Nuclear Plant





<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Northern States Power Company d/b/a Xcel Energy	11/05	Northern States Power Company	E002/GR-05-1428	NRG Impacts on Debt Costs
Northern States Power Company d/b/a Xcel Energy	09/06 10/06 11/06	NSP v. Excelsior	E6472/M-05-1993	PPA, Financial Impacts
Northern States Power Company d/b/a Xcel Energy	11/06	Northern States Power Company	G002/GR-06-1429	Return on Equity
Northern States Power	11/08 05/09	Northern States Power Company	E002/GR-08-1065	Return on Equity
Northern States Power	11/09 6/10	Northern States Power Company	G002/GR-09-1153	Return on Equity
Northern States Power	11/10 5/11	Northern States Power Company	E002/GR-10-971	Return on Equity
Northern States Power Company	1/16	Northern States Power Company	E002/GR-15-826	Industry Perspective
Northern States Power Company	11/19	Northern States Power Company	E002/GR-19-564	Return on Equity
CenterPoint Energy	10/21 1/22	CenterPoint Energy	G008/M-21-138 71-2500-37763	Prudence, Gas Purchasing Decisions
<b>Missouri House Committee on Energy and the Environment</b>				
Ameren Missouri	3/16	Ameren Missouri	HB 2816	Performance Based Ratemaking
<b>Missouri Public Service Commission</b>				
Missouri Gas Energy	1/03 04/03	Missouri Gas Energy	GR-2001-382	Gas Purchasing Practices, Prudence



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Aquila Networks	2/04	Aquila-MPS, Aquila L&P	ER-2004-0034 HR-2004-0024	Cost of Capital, Capital Structure
Aquila Networks	2/04	Aquila-MPS, Aquila L&P	GR-2004-0072	Cost of Capital, Capital Structure
Missouri Gas Energy	11/05 2/06 7/06	Missouri Gas Energy	GR-2002-348 GR-2003-0330	Capacity Planning
Missouri Gas Energy	11/10 1/11	KCP&L	ER-2010-0355	Natural Gas DSM
Missouri Gas Energy	11/10 1/11	KCP&L GMO	ER-2010-0356	Natural Gas DSM
Laclede Gas Company	5/11	Laclede Gas Company	CG-2011-0098	Affiliate Pricing Standards
Union Electric Company d/b/a Ameren Missouri	2/12 8/12	Union Electric Company	ER-2012-0166	Return on Equity, Earnings Attrition, Regulatory Lag
Union Electric Company d/b/a Ameren Missouri	6/14	Noranda Aluminum Inc.	EC-2014-0223	Ratemaking, Regulatory and Economic Policy
Union Electric Company d/b/a Ameren Missouri	1/15 2/15	Union Electric Company	ER-2014-0258	Revenue Requirements, Ratemaking Policies
Great Plains Energy Kansas City Power and Light Company	8/17 2/18 3/18	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	EM-2018-0012	Merger Standards, Transaction Value, Merger Benefits, Ring-Fencing,
Union Electric Company d/b/a Ameren Missouri	6/19	Union Electric Company d/b/a Ameren Missouri	EO-2017-0176	Affiliate Transactions, Cost Allocation Manual



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Union Electric Company d/b/a Ameren Missouri	7/19 1/20 2/20	Union Electric Company d/b/a Ameren Missouri	ER-2019-0335	Reasonableness of Affiliate Services and Costs
Union Electric Company d/b/a Ameren Missouri	3/21	Union Electric Company d/b/a Ameren Missouri	GR-2021-0241	Affiliate Transactions
Union Electric Company d/b/a Ameren Missouri	3/21 10/21	Union Electric Company d/b/a Ameren Missouri	ER-2021-0240	Affiliate Transactions, Prudence Standard, Used and Useful Principle
Empire District Electric Company	5/21 12/21 1/22	Empire District Electric Company	ER-2021-0312	Return on Equity
Empire District Gas Company	8/21 3/22	Empire District Gas Company	GR-2021-0320	Return on Equity
Empire District Electric Company	5/22	Empire District Electric Company	EO-2022-0040 EO-2022-0193	Prudence Policy
<b>Missouri Senate Committee on Commerce, Consumer Protection, Energy and the Environment</b>				
Ameren Missouri	3/16	Ameren Missouri	SB 1028	Performance Based Ratemaking
<b>Montana Public Service Commission</b>				
Great Falls Gas Company	10/82	Great Falls Gas Company	82-4-25	Gas Rate Adjustment Clause
<b>National Energy Board (now the Canada Energy Regulator)</b>				
Alberta-Northeast	2/87	Alberta Northeast Gas Export Project	GH-1-87	Gas Export Markets
Alberta-Northeast	11/87	TransCanada Pipeline	GH-2-87	Gas Export Markets
Alberta-Northeast	1/90	TransCanada Pipeline	GH-5-89	Gas Export Markets



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Independent Petroleum Association of Canada	1/92	Interprovincial Pipeline, Inc.	RH-2-91	Pipeline Valuation, Toll
The Canadian Association of Petroleum Producers	11/93	Trans Mountain Pipeline	RH-1-93	Cost of Capital
Alliance Pipeline L.P.	6/97	Alliance Pipeline L.P.	GH-3-97	Market Study
Maritimes & Northeast Pipeline	97	Sable Offshore Energy Project	GH-6-96	Market Study
Maritimes & Northeast Pipeline	2/02	Maritimes & Northeast Pipeline	GH-3-2002	Natural Gas Demand Analysis
TransCanada Pipelines	8/04	TransCanada Pipelines	RH-3-2004	Toll Design
Brunswick Pipeline	5/06	Brunswick Pipeline	GH-1-2006	Market Study
TransCanada Pipelines Ltd.	12/06 4/07	TransCanada Pipelines Ltd.: Gros Cacouna Receipt Point Application	RH-1-2007	Toll Design
Repsol Energy Canada Ltd	3/08	Repsol Energy Canada Ltd	GH-1-2008	Market Study
Maritimes & Northeast Pipeline	7/10	Maritimes & Northeast Pipeline	RH-4-2010	Regulatory Policy, Toll Development
TransCanada Pipelines Ltd	9/11 5/12	TransCanada Pipelines Ltd.	RH-3-2011	Business Services and Tolls Application
Trans Mountain Pipeline LLC	6/12 1/13	Trans Mountain Pipeline LLC	RH-1-2012	Toll Design



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
TransCanada Pipelines Ltd	8/13	TransCanada Pipelines Ltd	RE-001-2013	Toll Design
NOVA Gas Transmission Ltd	11/13	NOVA Gas Transmission Ltd	OF-Fac-Gas-N081-2013-1001	Toll Design
Trans Mountain Pipeline LLC	12/13	Trans Mountain Pipeline LLC	OF-Fac-Oil-T260-2013-0301	Economic and Financial Feasibility, Project Benefits
Energy East Pipeline Ltd.	10/14	Energy East Pipeline	Of-Fac-Oil-E266-2014-01 02	Economic and Financial Feasibility, Project Benefits
NOVA Gas Transmission Ltd	5/16	NOVA Gas Transmission Ltd	GH-003-2015	Certificate of Public Convenience and Necessity
TransCanada PipeLines Limited	4/17 9/17	TransCanada PipeLines Limited	RH-003-2017	Public Interest, Toll Design
NOVA Gas Transmission Ltd	10/17	NOVA Gas Transmission Ltd	MH-031-2017	Toll Design
NOVA Gas Transmission Ltd	3/19 11/19	NOVA Gas Transmission Ltd	RH-001-2019	Tolling Changes
Enbridge Pipelines Inc.	12/19 6/20 8/20 4/21	Enbridge Pipelines Inc.	RH-001-2020	Market and Scarcity Conditions; Reasonableness of Tolls, Terms, and Conditions; Public Interest; Open Season Process
NOVA Gas Transmission LTD.	5/21 12/21	NOVA Gas Transmission LTD.	RH-001-2021	Toll Design
<b>New Brunswick Energy and Utilities Board</b>				
Atlantic Wallboard/JD Irving Co	1/08	Enbridge Gas New Brunswick	MCTN #298600	Rate Setting for EGNB



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Atlantic Wallboard/Flakeboard	9/09 6/10 7/10	Enbridge Gas New Brunswick	NBEUB 2009-017	Rate Setting for EGNB
Atlantic Wallboard/Flakeboard	1/14	Enbridge Gas New Brunswick	NBEUB Matter 225	Rate Setting for EGNB
<b>New Hampshire Public Utilities Commission</b>				
Bus & Industry Association	6/89	P.S. Co. of New Hampshire	DR89-091	Fuel Costs
Bus & Industry Association	5/90	Northeast Utilities	DR89-244	Merger & Acquisition Issues
Eastern Utilities Associates	6/90	Eastern Utilities Associates	DF89-085	Merger & Acquisition Issues
EnergyNorth Natural Gas	12/90	EnergyNorth Natural Gas	DE90-166	Gas Purchasing Practices
EnergyNorth Natural Gas	7/90	EnergyNorth Natural Gas	DR90-187	Special Contracts, Discounted Rates
Northern Utilities, Inc.	12/91	Commission Investigation	DR91-172	Generic Discounted Rates
Public Service Co. of New Hampshire	7/14	Public Service Co. of NH	DE 11-250	Prudence
Public Service Co. of New Hampshire	7/15 11/15	Public Service Co. of NH	14-238	Restructuring and Rate Stabilization
<b>New Jersey Board of Public Utilities</b>				
Hilton/Golden Nugget	12/83	Atlantic Electric	BPU 832-154	Line Extension Policies
Golden Nugget	3/87	Atlantic Electric	BPU 837-658	Line Extension Policies
New Jersey Natural Gas	2/89	New Jersey Natural Gas	BPU GR89030335J	Cost Allocation, Rate Design



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
New Jersey Natural Gas	1/91	New Jersey Natural Gas	BPU GR90080786J	Cost Allocation, Rate Design
New Jersey Natural Gas	8/91	New Jersey Natural Gas	BPU GR91081393J	Rate Design, Weather Normalization Clause
New Jersey Natural Gas	4/93	New Jersey Natural Gas	BPU GR93040114J	Cost Allocation, Rate Design
South Jersey Gas	4/94	South Jersey Gas	BRC Dock No. GR080334	Revised Levelized Gas Adjustment
New Jersey Utilities Association	9/96	Commission Investigation	BPU AX96070530	PBOP Cost Recovery
Morris Energy Group	11/09	Public Service Electric & Gas	BPU GR 09050422	Discriminatory Rates
New Jersey American Water Co.	4/10	New Jersey American Water Co.	BPU WR 1040260	Tariff Rates and Revisions
Electric Customer Group	1/11	Generic Stakeholder Proceeding	BPU GR10100761 ER10100762	Natural Gas Ratemaking Standards and pricing
<b>New Mexico Public Service Commission</b>				
Gas Company of New Mexico	11/83	Public Service Co. of New Mexico	1835	Cost Allocation, Rate Design
Southwestern Public Service Co., New Mexico	12/12	SPS New Mexico	12-00350-UT	Rate Case, Return on Equity
PNM Resources	12/13 10/14 12/14	Public Service Co. of New Mexico	13-00390-UT	Nuclear Valuation, In Support of Stipulation



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>New York State Public Service Commission</b>				
Iroquois Gas Transmission	12/86	Iroquois Gas Transmission System	70363	Gas Markets
Brooklyn Union Gas Company	8/95	Brooklyn Union Gas Company	95-6-0761	Panel on Industry Directions
Central Hudson, ConEdison and Niagara Mohawk	9/00	Central Hudson, ConEdison and Niagara Mohawk	96-E-0909 96-E-0897 94-E-0098 94-E-0099	Section 70, Approval of New Facilities
Central Hudson, New York State Electric & Gas, Rochester Gas & Electric	5/01	Joint Petition of NiMo, NYSEG, RG&E, Central Hudson, Constellation and Nine Mile Point	01-E-0011	Section 70, Rebuttal Testimony
Rochester Gas & Electric	12/03	Rochester Gas & Electric	03-E-1231	Sale of Nuclear Plant
Rochester Gas & Electric	1/04	Rochester Gas & Electric	03-E-0765 02-E-0198 03-E-0766	Sale of Nuclear Plant; Ratemaking Treatment of Sale
Rochester Gas and Electric and NY State Electric & Gas Corp	2/10	Rochester Gas & Electric  NY State Electric & Gas Corp	09-E-0715 09-E-0716 09-E-0717 09-E-0718	Depreciation Policy
National Fuel Gas Corporation	9/16 9/16	National Fuel Gas Corporation	16-G-0257	Ring-fencing Policy
NextEra Energy Transmission New York	8/18	NextEra Energy Transmission New York	18-T-0499	Certificate of Need for Transmission Line, Vertical Market Power
NextEra Energy Transmission New York	2/19 8/19	NextEra Energy Transmission New York	18-E-0765	Certificate of Need for Transmission Line, Vertical Market Power
<b>Nova Scotia Utility and Review Board</b>				
Nova Scotia Power	9/12	Nova Scotia Power	P-893	Audit Reply





<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Nova Scotia Power	8/14	Nova Scotia Power	P-887	Audit Reply
Nova Scotia Power	5/16	Nova Scotia Power	2017-2019 Fuel Stability Plan	Used and Useful Ratemaking
NSP Maritime Link ("NSPML")	12/16 2/17 5/17	NSP Maritime Link ("NSPML")	M07718 NSPML Interim Cost Assessment Application	Used and Useful Ratemaking
NSP Maritime Link ("NSPML")	10/19	NSP Maritime Link ("NSPML")	M09277 NSPML 2020 Interim Assessment Application	Recovery of Depreciation and Return, Costs and Customer Benefits, Debt Service Coverage Ratio
Nova Scotia Power	2/21	Nova Scotia Power	M10013 Annapolis Tidal Generation Station Retirement: Request for Accounting Treatment and Net Book Value Recovery	Generation Plant Cost Recovery
NSP Maritime Link ("NSPML")	8/21	NSP Maritime Link ("NSPML")	M10206 NSPML Final Cost Assessment Application	Prudence Review
Nova Scotia Power	1/22	Nova Scotia Power	2022-2024 General Rate Application	Decarbonization Policy, Recovery of Energy Transition Costs
<b>Oklahoma Corporation Commission</b>				
Oklahoma Natural Gas Company	6/98	Oklahoma Natural Gas Company	PUD 980000177	Storage Issues
Oklahoma Gas & Electric Company	5/05 9/05	Oklahoma Gas & Electric Company	PUD 200500151	Prudence of McLain Acquisition
Oklahoma Gas & Electric Company	3/08	Oklahoma Gas & Electric Company	PUD 200800086	Acquisition of Redbud Generating Facility



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Oklahoma Gas & Electric Company	8/14 1/15	Oklahoma Gas & Electric Company	PUD 201400229	Integrated Resource Plan
<b>Ontario Energy Board</b>				
Market Hub Partners Canada, L.P.	5/06	Natural Gas Electric Interface Roundtable	File No. EB-2005-0551	Market-based Rates for Storage
Ontario Power Generation	9/13 2/14 5/14	Ontario Power Generation	EB-2013-0321	Prudence Review of Nuclear Project Management Processes
<b>Oregon Public Utilities Commission</b>				
Hydro One Limited and Avista Corporation	8/18 10/18	Hydro One Limited and Avista Corporation	UM 1897	Reasonableness and Sufficiency of the Governance, Bankruptcy, and Financial Ring-Fencing Stipulated Settlement Commitments
<b>Pennsylvania Public Utility Commission</b>				
ATOC	4/95	Equitrans	R-00943272	Rate Design, Unbundling
ATOC	3/96 4/96	Equitrans	P-00940886	Rate Design, Unbundling
<b>Rhode Island Public Utilities Commission</b>				
Newport Electric	7/81	Newport Electric	1599	Rate Attrition
South County Gas	9/82	South County Gas	1671	Cost of Capital
New England Energy Group	7/86	Providence Gas Company	1844	Cost Allocation, Rate Design
Providence Gas	8/88	Providence Gas Company	1914	Load Forecast, Least-Cost Planning
Providence Gas Company and The Valley Gas Company	1/01 3/02	Providence Gas Company and The Valley Gas Company	1673 1736	Gas Cost Mitigation Strategy



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
The New England Gas Company	3/03	New England Gas Company	3459	Cost of Capital
PPL Corporation and PPL Rhode Island Holdings, LLC	11/21	PPL Corporation, PPL Rhode Island Holdings, LLC, National Grid USA, and The Narragansett Electric Company	21-09	Merger Approval Issues
<b>Texas Public Utility Commission</b>				
Southwestern Electric	5/83	Southwestern Electric	-	Cost of Capital, CWIP
P.U.C. General Counsel	11/90	Texas Utilities Electric Company	9300	Gas Purchasing Practices, Prudence
Oncor Electric Delivery Company	8/07	Oncor Electric Delivery Company	34040	Regulatory Policy, Rate of Return, Return of Capital and Consolidated Tax Adjustment
Oncor Electric Delivery Company	6/08	Oncor Electric Delivery Company	35717	Regulatory policy
Oncor Electric Delivery Company	10/08 11/08	Oncor, TCC, TNC, ETT, LCRA TSC, Sharyland, STEC, TNMP	35665	Competitive Renewable Energy Zone
CenterPoint Energy	6/10 10/10	CenterPoint Energy/Houston Electric	38339	Regulatory Policy, Risk, Consolidated Taxes
Oncor Electric Delivery Company	1/11	Oncor Electric Delivery Company	38929	Regulatory Policy, Risk
Cross Texas Transmission	8/12 11/12	Cross Texas Transmission	40604	Return on Equity
Southwestern Public Service	11/12	Southwestern Public Service	40824	Return on Equity
Lone Star Transmission	5/14	Lone Star Transmission	42469	Return on Equity, Debt, Cost of Capital



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
CenterPoint Energy Houston Electric, LLC	6/15	CenterPoint Energy Houston Electric, LLC	44572	Distribution Cost Recovery Factor
NextEra Energy, Inc.	10/16 2/17	Oncor Electric Delivery Company LLC, NextEra Energy	46238	Merger Application, Ring-fencing, Affiliate Interest, Code of Conduct
CenterPoint Energy Houston Electric, LLC	4/19 6/19	CenterPoint Energy Houston Electric, LLC	49421	Incentive Compensation
Sun Jupiter Holdings LLC and IIF US Holding 2 LP	11/19	Sun Jupiter Holdings LLC and IIF US Holding 2 LP Acquisition of El Paso Electric Company	49849	Public Interest Standard, Ring-fencing, Regulatory Commitments, Rate Credit and Economic Considerations, Ownership and Governance Post-closing, Tax Matters
Texas-New Mexico Power Company and Avangrid, Inc. and NM Green Holdings, Inc.	3/21	Texas-New Mexico Power Company and Avangrid, Inc. and NM Green Holdings, Inc.	51547	Merger Approval Conditions
<b>Texas Railroad Commission</b>				
Western Gas Interstate Company	1/85	Southern Union Gas Company	5238	Cost of Service
Atmos Pipeline Texas	9/10 1/11	Atmos Pipeline Texas	GUD 10000	Ratemaking Policy, Risk
Atmos Pipeline Texas	1/17 4/17	Atmos Pipeline Texas	GUD 10580	Ratemaking Policy, Return on Equity, Rate Design Policy
<b>Texas State Legislature</b>				
CenterPoint Energy	4/13	Association of Electric Companies of Texas	SB 1364	Consolidated Tax Adjustment Clause Legislation



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>Utah Public Service Commission</b>				
AMAX Magnesium	1/88	Mountain Fuel Supply Company	86-057-07	Cost Allocation, Rate Design
AMAX Magnesium	4/88	Utah P&L/Pacific P&L	87-035-27	Merger & Acquisition
Utah Industrial Group	7/90 8/90	Mountain Fuel Supply	89-057-15	Gas Transportation Rates
AMAX Magnesium	9/90	Utah Power & Light	89-035-06	Energy Balancing Account
AMAX Magnesium	8/90	Utah Power & Light	90-035-06	Electric Service Priorities
Questar Gas Company	12/07	Questar Gas Company	07-057-13	Benchmarking in Support of ROE
<b>Vermont Public Service Board</b>				
Green Mountain Power	8/82	Green Mountain Power	4570	Rate Attrition
Green Mountain Power	12/97	Green Mountain Power	5983	Cost of Service
Green Mountain Power	7/98 9/00	Green Mountain Power	6107	Rate Development
<b>Virginia Corporation Commission</b>				
Virginia Electric and Power Company d/b/a Dominion Energy Virginia	3/21 5/21	Virginia Electric and Power Company d/b/a Dominion Energy Virginia	PUR-2021-00058	Regulatory Policy
<b>Washington Utilities and Transportation Commission</b>				
Hydro One Limited and Avista Corporation	9/18	Hydro One Limited and Avista Corporation	U-170970	Reasonableness and Sufficiency of the Governance, Bankruptcy, and Financial Ring-Fencing Stipulated Settlement Commitments



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>Wisconsin Public Service Commission</b>				
WEC & WICOR	11/99	WEC	9401-YO-100 9402-YO-101	Approval to Acquire the Stock of WICOR
Wisconsin Electric Power Company	1/07	Wisconsin Electric Power Co.	6630-EI-113	Sale of Nuclear Plant
Wisconsin Electric Power Company	10/09	Wisconsin Electric Power Co.	6630-CE-302	CPCN Application for Wind Project
Northern States Power Wisconsin	10/13	Xcel Energy (dba Northern States Power Wisconsin)	4220-UR-119	Fuel Cost Adjustments
Wisconsin Electric Power Company	11/13	Wisconsin Electric Power Co.	6630-FR-104	Fuel Cost Adjustment
Wisconsin Gas LLC	5/14	Wisconsin Gas LLC	6650-CG-233	Gas Line Expansion, Reasonableness
WE Energy	8/14 1/15 3/15	WE Energy/Integrus	9400-YO-100	Merger Approval
Wisconsin Public Service Corporation	1/19	Madison Gas and Electric Company and Wisconsin Public Service Corporation	5-BS-228	Evaluation of Models Used in Resource Investment Decisions



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>American Arbitration Association</b>				
Michael Polsky	3/91	M. Polsky vs. Indeck Energy	-	Corporate Valuation, Damages
ProGas Limited	7/92	ProGas Limited v. Texas Eastern	-	Gas Contract Arbitration
Attala Generating Company	12/03	Attala Generating Co v. Attala Energy Co.	16-Y-198-00228-03	Power Project Valuation, Breach of Contract, Damages
Nevada Power Company	4/08	Nevada Power v. Nevada Cogeneration Assoc. #2	-	Power Purchase Agreement
Sensata Technologies, Inc./EMS Engineered Materials Solutions, LLC	1/11	Sensata Technologies, Inc./EMS Engineered Materials Solutions, LLC v. Pepco Energy Services	11-198-Y-00848-10	Change in Usage Dispute, Damages
Sandy Creek Energy Associates, L.P.	9/17	Sandy Creek Energy Associates, L.P. vs. Lower Colorado River Authority	01-16-0002-6892	Power Purchase Agreement, Analysis of Damages
Dynegy Midwest Generation, LLC	1/21 2/21	BNSF Railway Company and Norfolk Southern Railway Company v. Dynegy Midwest Generation, LLC	01-18-0001-3283	Electric Generation Asset Management
<b>Canadian Arbitration Panel</b>				
Hydro-Québec	4/15 5/16 7/16	Hydro-Fraser et al v. Hydro-Québec	-	Electric Price Arbitration
<b>Commonwealth of Massachusetts, Appellate Tax Board</b>				
NStar Electric Company	8/14	NStar Electric Company	F316346 F319254	Valuation Methodology



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Western Massachusetts Electric Company	2/16	Western Massachusetts Electric Company v. Board of Assessors of The City of Springfield	315550 319349	Valuation Methodology
<b>Commonwealth of Massachusetts, Suffolk Superior Court</b>				
John Hancock	1/84	Trinity Church v. John Hancock	C.A. No. 4452	Damages Quantification
<b>Court of Common Pleas of Philadelphia County, Civil Division</b>				
Sunoco Marketing & Terminals L.P.	11/16	Sunoco Marketing & Terminals, L.P. v. South Jersey Resources Group	150302520	Damages Quantification
<b>State of Colorado District Court, County of Garfield</b>				
Questar Corporation, et al	11/00	Questar Corporation, et al.	00CV129-A	Partnership Fiduciary Duties
<b>State of Delaware, Court of Chancery, New Castle County</b>				
Wilmington Trust Company	11/05	Calpine Corporation vs. Bank of New York and Wilmington Trust Company	C.A. No. 1669-N	Bond Indenture Covenants
<b>Illinois Appellate Court, Fifth Division</b>				
Norweb, PLC	8/02	Indeck No. America v. Norweb	97 CH 07291	Breach of Contract, Power Plant Valuation
<b>Independent Arbitration Panel</b>				
Alberta Northeast Gas Limited	2/98	ProGas Ltd., Canadian Forest Oil Ltd., AEC Oil & Gas	-	
Ocean State Power	9/02	Ocean State Power vs. ProGas Ltd.	2001/2002 Arbitration	Gas Price Arbitration
Ocean State Power	2/03	Ocean State Power vs. ProGas Ltd.	2002/2003 Arbitration	Gas Price Arbitration





<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Ocean State Power	6/04	Ocean State Power vs. ProGas Ltd.	2003/2004 Arbitration	Gas Price Arbitration
Shell Canada Limited	7/05	Shell Canada Limited and Nova Scotia Power Inc.	-	Gas Contract Price Arbitration
<b>International Court of Arbitration</b>				
Wisconsin Gas Company, Inc.	2/97	Wisconsin Gas Co. vs. Pan-Alberta	9322/CK	Contract Arbitration
Minnegasco, A Division of NorAm Energy Corp.	3/97	Minnegasco vs. Pan-Alberta	9357/CK	Contract Arbitration
Utilicorp United Inc.	4/97	Utilicorp vs. Pan-Alberta	9373/CK	Contract Arbitration
IES Utilities	97	IES vs. Pan-Alberta	9374/CK	Contract Arbitration
Mitsubishi Heavy Industries, Ltd., and Mitsubishi Nuclear Energy Systems, Inc.	12/15 2/16	Southern California Edison Company, Edison Material Supply LLC, San Diego Gas & Electric Co., and the City of Riverside vs. Mitsubishi Heavy Industries, Ltd., and Mitsubishi Nuclear Energy Systems, Inc.	19784/AGF/RD	Damages Arising Under a Nuclear Power Equipment Contract
<b>International Chamber of Commerce</b>				
Senvion GmbH	4/17	Senvion GmbH v. EDF Renewable Energy, Inc.	01-15-0005-4590	Breach-Related Damages, Unfair Competition, Unjust Enrichment
Senvion GmbH	9/17	Senvion GmbH v. EEN CA Lac Alfred Limited Partnership, et al.	21535	Breach-Related Damages



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Senvion GmbH	12/17	Senvion GmbH v. EEN CA Massif du Sud Limited Partnership, et al.	21536	Breach-Related Damages
EDF Inc.	3/21	Exelon Generating Company, LLC v. EDF Inc.	25479/MK	Valuation of Nuclear Power Plants
<b>State of New Jersey, Mercer County Superior Court</b>				
Transamerica Corp., et al.	7/07 10/07	IMO Industries Inc. vs. Transamerica Corp., et al.	L-2140-03	Breach-Related Damages, Enterprise Value
<b>State of New York, Nassau County Supreme Court</b>				
Steel Los III, LP	6/08	Steel Los II, LP & Associated Brook, Corp v. Power Authority of State of NY	Index No. 5662/05	Property Seizure
<b>State of South Carolina, U.S. District Court for the District of South Carolina</b>				
Toshiba Corporation	4/20	Lightsey v. Toshiba Corp.	Action No. 9:18-cv-190	Project Delays and Cost Overruns Analyses
<b>Province of Alberta, Court of Queen's Bench</b>				
Alberta Northeast Gas Limited	5/07	Cargill Gas Marketing Ltd. vs. Alberta Northeast Gas Limited	Action No. 0501-03291	Gas Contracting Practices
<b>Quebec Superior Court, District of Gaspé</b>				
Senvion Canada and Senvion GmbH	2/19	Senvion Canada and Senvion GmbH v. Suspendem Rope Access	-	Breach-Related Damages, Reimbursement of Liquidated Damages, Reimbursement of Scheduled Maintenance Penalties



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>State of New Hampshire, Board of Tax and Land Appeals</b>				
Public Service Company of New Hampshire d/b/a Eversource Energy	11/18	Appeal of Public Service Company of New Hampshire d/b/a Eversource Energy	28873-14-15-16-17PT	Valuation of Transmission and Distribution Assets
<b>State of New Hampshire, Judicial Court-Rockingham Superior Court</b>				
Public Service Company of New Hampshire d/b/a Eversource Energy	10/18	Public Service Company of New Hampshire d/b/a Eversource Energy v. City of Portsmouth	218-2016-CV-00899 218-2017-CV-00917	Valuation of Transmission and Distribution Assets
<b>State of New Hampshire, Superior Court-Merrimack County</b>				
Public Service Company of New Hampshire d/b/a Eversource Energy	3/18	Public Service Company of New Hampshire d/b/a Eversource Energy v. Town of Bow	217-2015-CV-00469 217-2016-CV-00474 217-2017-CV-00422	Valuation of Transmission and Distribution Assets
<b>State of Rhode Island, Providence City Court</b>				
Aquidneck Energy	5/87	Laroche vs. Newport	-	Least-Cost Planning
<b>State of Texas, Hutchinson County Court</b>				
Western Gas Interstate	5/85	State of Texas vs. Western Gas Interstate Co.	14,843	Cost of Service
<b>State of Utah, Third District Court</b>				
PacifiCorp & Holme, Roberts & Owen, LLP	1/07	USA Power & Spring Canyon Energy vs. PacifiCorp. et al.	Civil No. 050903412	Breach-Related Damages
<b>U.S. Bankruptcy Court, District of New Hampshire</b>				
EUA Power Corporation	7/92	EUA Power Corporation	BK-91-10525-JEY	Pre-Petition Solvency



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>U.S. Bankruptcy Court, District of New Jersey</b>				
Ponderosa Pine Energy Partners, Ltd.	7/05	Ponderosa Pine Energy Partners, Ltd.	05-21444	Forward Contract Bankruptcy Treatment
<b>U.S. Bankruptcy Court, No. District of New York</b>				
Cayuga Energy, NYSEG Solutions, The Energy Network	09/09	Cayuga Energy, NYSEG Solutions, The Energy Network	06-60073-6-sdg	Going Concern
<b>U.S. Bankruptcy Court, So. District of New York</b>				
Johns Manville	5/04	Enron Energy Mktg. v. Johns Manville; Enron No. America v. Johns Manville	01-16034 (AJG)	Breach of Contract, Damages
<b>U.S. Bankruptcy Court, Northern District of Texas</b>				
Southern Maryland Electric Cooperative, Inc., and Potomac Electric Power Company	11/04	Mirant Corporation, et al. v. SMECO	03-4659; Adversary No. 04-4073	PPA Interpretation, Leasing
<b>U.S. Bankruptcy Court, Southern District of Texas</b>				
Ultra Petroleum Corp. et al	3/17	Ultra Petroleum Corp. et al	16-32202 (MI)	Valuation
<b>U.S. Court of Federal Claims</b>				
Boston Edison Company	7/06 11/06	Boston Edison Company v. United States	99-447C 03-2626C	Spent Nuclear Fuel Breach, Damages
Consolidated Edison Company	7/07	Consolidated Edison Company	06-305T	Evaluation of Lease Purchase Option
Consolidated Edison Company	2/08 6/08	Consolidated Edison Company v. United States	04-0033C	Spent Nuclear Fuel Breach, Damages



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
Vermont Yankee Nuclear Power Corporation	6/08	Vermont Yankee Nuclear Power Corporation v. United States	03-2663C	Spent Nuclear Fuel Breach, Damages
Virginia Electric and Power Company d/b/a Dominion Virginia Power	3/19	Virginia Electric and Power Company d/b/a Dominion Virginia Power v. United States	17-464C	Double Recovery, Cost Recovery of Infrastructure Improvements
<b>U. S. District Court, Boulder County, Colorado</b>				
KN Energy, Inc.	3/93	KN Energy vs. Colorado GasMark, Inc.	92 CV 1474	Gas Contract Interpretation
<b>U. S. District Court, Northern California</b>				
Pacific Gas & Electric Co./PGT  PG&E/PGT Pipeline Exp. Project	4/97	Norcen Energy Resources Limited	C94-0911 VRW	Fraud Claim
<b>U. S. District Court, District of Connecticut</b>				
Constellation Power Source, Inc.	12/04	Constellation Power Source, Inc. v. Select Energy, Inc.	Civil Action 304 CV 983 (RNC)	ISO Structure, Breach of Contract
<b>U.S. District Court, Northern District of Illinois, Eastern Division</b>				
U.S. Securities and Exchange Commission	4/12	U.S. Securities and Exchange Commission v. Thomas Fisher, Kathleen Halloran, and George Behrens	07 C 4483	Prudence, PBR
<b>U. S. District Court, Massachusetts</b>				
Eastern Utilities Associates & Donald F. Pardus	3/94	NECO Enterprises Inc. vs. Eastern Utilities Associates	Civil Action No. 92-10355-RCL	Seabrook Power Sales



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
<b>U. S. District Court, Montana</b>				
KN Energy, Inc.	9/92	KN Energy v. Freeport MacMoRan	CV 91-40-BLG-RWA	Gas Contract Settlement
<b>U.S. District Court, New Hampshire</b>				
Portland Natural Gas Transmission and Maritimes & Northeast Pipeline	9/03	Public Service Company of New Hampshire vs. PNGTS and M&NE Pipeline	C-02-105-B	Impairment of Electric Transmission Right-of-Way
<b>U. S. District Court, Southern District of New York</b>				
Central Hudson Gas & Electric	11/99 8/00	Central Hudson v. Riverkeeper, Inc., Robert H. Boyle, John J. Cronin	Civil Action 99 Civ 2536 (BDP)	Electric Restructuring, Environmental Impacts
Consolidated Edison	3/02	Consolidated Edison v. Northeast Utilities	Case No. 01 Civ. 1893 (JGK) (HP)	Industry Standards for Due Diligence
Merrill Lynch & Company	1/05	Merrill Lynch v. Allegheny Energy, Inc.	Civil Action 02 CV 7689 (HB)	Due Diligence, Breach of Contract, Damages
<b>U. S. District Court, Eastern District of Virginia</b>				
Aquila, Inc.	1/05 2/05	VPEM v. Aquila, Inc.	Civil Action 304 CV 411	Breach of Contract, Damages
<b>U. S. District Court, Western District of Virginia</b>				
Washington Gas Light Company	8/15 9/15	Washington Gas Light Company v. Mountaineer Gas Company	Civil Action No. 5:14-cv-41	Nominations and Gas Balancing, Lost and Unaccounted for Gas, Damages



<b>SPONSOR</b>	<b>DATE</b>	<b>CASE/APPLICANT</b>	<b>DOCKET NO.</b>	<b>SUBJECT</b>
<b>U. S. District Court, Portland Maine</b>				
ACEC Maine, Inc. et al.	10/91	CIT Financial vs. ACEC Maine	90-0304-B	Project Valuation
Combustion Engineering	1/92	Combustion Eng. vs. Miller Hydro	89-0168P	Output Modeling, Project Valuation
<b>U.S. Securities and Exchange Commission</b>				
Eastern Utilities Association	10/92	EUA Power Corporation	File No. 70-8034	Value of EUA Power
<b>U.S. Tax Court in Illinois</b>				
Exelon Corporation	4/15 6/15	Exelon Corporation, as Successor by Merger to Unicom Corporation and Subsidiaries et al. v. Commission of Internal Revenue	29183-13 29184-13	Valuation of Analysis of Lease Terms and Quantify Plant Values
<b>Council of the District of Columbia Committee on Consumer and Regulatory Affairs</b>				
Potomac Electric Power Co.	7/99	Potomac Electric Power Co.	Bill 13-284	Utility Restructuring

Line No.	Service Company	Operating Companies	Services Provided by Affiliated Services Company
1	AES US Services, LLC	<ul style="list-style-type: none"> <li>• AES Southland Energy, LLC,</li> <li>• AES ES Alamitos, LLC,</li> <li>• AES Alamitos Energy, LLC,</li> <li>• AES Clean Energy Services, LLC,</li> <li>• Indianapolis Power &amp; Light Company,</li> <li>• IPALCO Enterprises, Inc.,</li> <li>• AES NA Central, LLC,</li> <li>• AES Renewable Holdings, LLC,</li> <li>• The AES Corporation,</li> <li>• AES Big Sky, LLC,</li> <li>• DPL Inc.,</li> <li>• AES Ohio Generation, LLC,</li> <li>• The Dayton Power and Light Company,</li> <li>• AES North America Development, LLC,</li> <li>• AES Hawaii, LLC,</li> <li>• Miami Valley Insurance Company,</li> <li>• MacGregor Park, Inc.,</li> <li>• Miami Valley Lighting, LLC,</li> <li>• Na Pua Makani Power Partners, LLC,</li> <li>• AES Shady Point, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• COO Office,</li> <li>• Market Operations SY,</li> <li>• Battery Operations,</li> <li>• Commercial Operation,</li> <li>• OPS Monitoring &amp; Control,</li> <li>• Plant Managers,</li> <li>• Storms,</li> <li>• Systems Operations,</li> <li>• VP, T&amp;D Operations,</li> <li>• Settlements,</li> <li>• Customer Service,</li> <li>• T&amp;D Metering Service,</li> <li>• Safety,</li> <li>• Environmental Mgt,</li> <li>• Strat Acct &amp; Cus Pro,</li> <li>• Growth &amp; Strg Invest,</li> <li>• Infrstctr Security,</li> <li>• Reliability Programs,</li> <li>• Vendor Discounts,</li> <li>• US SBU Leader,</li> <li>• DE Accounting,</li> <li>• Management - CFO,</li> <li>• Accounts Payable,</li> <li>• Technical Accounting,</li> <li>• FP&amp;A,</li> <li>• Controller,</li> <li>• Financial Reporting,</li> <li>• Fixed Asset Accounting,</li> <li>• Gen &amp; Ops Accounting,</li> <li>• Treasury,</li> <li>• Regulatory Accounting,</li> <li>• Tax Accounting,</li> <li>• Revenue Accounting,</li> <li>• Internal Audit,</li> </ul>



			<ul style="list-style-type: none"> <li>• IT Governance &amp; Security,</li> <li>• IT Management,</li> <li>• Cyber Security,</li> <li>• IT Enterprise Apps,</li> <li>• IT Collaboration Svc,</li> <li>• IT Infrastructure,</li> <li>• IT Networks,</li> <li>• IT Generation Apps,</li> <li>• IT T&amp;D Apps,</li> <li>• Legal Services,</li> <li>• Regulatory Affairs,</li> <li>• Local HR,</li> <li>• Benefits O&amp;M,</li> <li>• Talent COE,</li> <li>• Payroll,</li> <li>• Total Rewards COE,</li> <li>• Purchasing Management,</li> <li>• Logistic &amp; Mat Management,</li> <li>• A&amp;PM Norms &amp; Stds,</li> <li>• Asset Management - T&amp;D,</li> <li>• Insurance,</li> <li>• A&amp;PM NERC Compliance,</li> <li>• A&amp;PM Performance Eng,</li> <li>• A&amp;PM Outages &amp; Prjct,</li> <li>• Risk Management,</li> <li>• A&amp;PM Technical Eng,</li> <li>• Customer Experience,</li> <li>• Communications,</li> <li>• Employee Ovhd Dollar,</li> <li>• Pension Clearing,</li> <li>• Payroll Taxes O&amp;M,</li> <li>• Digital Customer Exp,</li> <li>• Operations Tech,</li> <li>• Digital Prod &amp; Eco,</li> <li>• IT Digital Operation,</li> <li>• Digital Sol &amp; Innov,</li> <li>• Digital Work Exp,</li> <li>• Emp Ovhd Hours O&amp;M</li> </ul>
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			<ul style="list-style-type: none"> <li>• US Business Resilience</li> <li>• Government Affairs</li> <li>• Regulatory New Products</li> <li>• US Utilities President</li> <li>• Chief Customer Officer</li> </ul>
2	Algonquin Power & Utilities Corp	<ul style="list-style-type: none"> <li>• Algonquin Power Trust,</li> <li>• Liberty Utilities (Sub) Corp.,</li> <li>• Liberty Utilities (CalPeco Electric) LLC,</li> <li>• Liberty Utilities (Granite State Electric) Corp.,</li> <li>• Liberty Utilities (Energy North Natural Gas) Corp.,</li> <li>• Liberty Utilities (Midstates Natural Gas) Corp.,</li> <li>• Liberty Utilities (Gas New Brunswick) LP,</li> <li>• Liberty Utilities (Peach State Natural Gas) Corp.,</li> <li>• Liberty Utilities (Pine Bluff Water) Corp.,</li> <li>• Liberty Energy Utilities (New Hampshire) Corp.,</li> <li>• Liberty Utilities (New England Gas) Corp.,</li> <li>• Liberty Utilities (White Hall Water) Co.,</li> <li>• Liberty Utilities (White Hall Sewer) Co.,</li> <li>• Liberty Utilities Co.,</li> <li>• Liberty Utilities (Park Water) Corp.,</li> <li>• Empire District Electric,</li> <li>• Liberty Utilities (Woodson-Hensley Water) Corp.,</li> <li>• Liberty Utilities (St. Lawrence Gas) Corp.,</li> <li>• Liberty Utilities (Tinker Transmission) LP</li> <li>• Bermuda Electric Light Company Limited,</li> <li>• Empresa de Servicios Sanitarios de Los Lagos S.A.</li> </ul>	<ul style="list-style-type: none"> <li>• Legal Costs,</li> <li>• Tax Services,</li> <li>• Audit,</li> <li>• Investor Relations,</li> <li>• Director Fees and Insurance,</li> <li>• Licenses, Fees, and Permits,</li> <li>• Escrow and Transfer Agent Fees,</li> <li>• Other Professional Services,</li> <li>• Other Administration Costs,</li> <li>• Executive and Strategic Management</li> </ul>
3	Allegheny Energy Service Corporation	<ul style="list-style-type: none"> <li>• FirstEnergy Service Company</li> </ul>	<ul style="list-style-type: none"> <li>• All charges recorded at Allegheny Service Corporation are allocated 100% to FirstEnergy Service Company monthly</li> </ul>
4	Alliant Energy Corporate Services, Inc	<ul style="list-style-type: none"> <li>• Alliant Energy Corporation,</li> <li>• Alliant Energy SPE LLC,</li> <li>• Wisconsin Power and Light Company,</li> <li>• Interstate Power and Light Company,</li> <li>• Alliant Energy Resources, LLC,</li> <li>• Traverro, Inc.,</li> <li>• Cedar Rapids and Iowa City Railway Company,</li> <li>• Logistics Park Dubuque, Inc.,</li> <li>• Williams Bulk Transfer Inc.,</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting,</li> <li>• Administrative,</li> <li>• Corporate,</li> <li>• Corporate Secretary,</li> <li>• Customer Service, Customer Assistance and Customer Relations,</li> <li>• Electric Distribution Engineering and Construction,</li> <li>• Environmental Affairs,</li> <li>• Facilities,</li> <li>• Finance,</li> </ul>

		<ul style="list-style-type: none"> <li>• Alliant Energy Investments Inc.,</li> <li>• Iowa Land and Building Company,</li> <li>• Alliant Energy Generation Inc.,</li> <li>• Sheboygan Power LLC,</li> <li>• Alliant Energy Finance, LLC,</li> <li>• AE Growth &amp; Development, LLC,</li> <li>• Comprehensive Energy Solutions, LLC,</li> <li>• AE Development Holdco, LLC,</li> <li>• Logistics Park Cedar Rapids, LLC,</li> <li>• Travero Logistics, LLC,</li> <li>• TraveroEQ LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Fuels,</li> <li>• Gas Transmission and Distribution Engineering and Construction,</li> <li>• Human Resources,</li> <li>• Information Systems,</li> <li>• Insurance and Risk Management,</li> <li>• Internal Auditing,</li> <li>• Investor Relations,</li> <li>• Legal,</li> <li>• Materials Management,</li> <li>• Power Engineering and Construction,</li> <li>• Planning,</li> <li>• Power Planning,</li> <li>• Public and Community Affairs,</li> <li>• Regulatory,</li> <li>• Real Estate and Right of Way,</li> <li>• Shareowner Services,</li> <li>• Transportation</li> </ul>
5	Ameren Services Company <sup>1</sup>	<ul style="list-style-type: none"> <li>• Ameren Corporation,</li> <li>• Ameren Development Company,</li> <li>• Union Electric Company,</li> <li>• Ameren Transmission Company of Illinois,</li> <li>• Ameren Energy Medina Valley Cogen, LLC,</li> <li>• Ameren Illinois Company,</li> <li>• ATX Southwest, LLC,</li> <li>• ATX East, LLC,</li> <li>• Ameren Transmission Company, LLC,</li> <li>• Lucky Corridor, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Power Ops and Energy Mgmt</li> <li>• Controller</li> <li>• Supply Chain</li> <li>• Treasurer</li> <li>• Corporate Strategy, Innovation, Risk</li> <li>• Human Resources</li> <li>• Executive</li> <li>• Digital</li> <li>• CSR Policy &amp; Analysis</li> <li>• Legal, Fed Reg &amp; Compliance</li> <li>• Ameren Services Center</li> <li>• Financial Services</li> <li>• Missouri Business Planning</li> <li>• Trans Ops Plan Policy and Reg</li> <li>• Corp Communication</li> <li>• Corporate Internal Audit</li> <li>• Corporate Tax</li> <li>• Missouri Operations &amp; Tech Services</li> <li>• Safety, Security &amp; Ops Oversight</li> </ul>

<sup>1</sup> Source: Ameren Missouri 2021 Cost Allocation Manual

			<ul style="list-style-type: none"> <li>• Customer Affordability &amp; ATO</li> <li>• Facilities &amp; Property Management</li> <li>• Corporate Contribution &amp; DE&amp;I</li> <li>• Stores Inventory Transfers</li> <li>• Rental Income</li> <li>• Vehicle usage by affiliate</li> <li>• Laboratory Services</li> <li>• Stores Inventory Transfers</li> <li>• Engineering and Construction Support</li> <li>• Power Supply Agreement</li> </ul>
<p>6</p>	<p>American Electric Power Service Corporation</p>	<ul style="list-style-type: none"> <li>• Abstract Digital,</li> <li>• AEP Appalachian Transmission Company, Inc.,</li> <li>• AEP Clean Energy Resources LLC,</li> <li>• AEP Coal, Inc.,</li> <li>• AEP Credit, Inc.,</li> <li>• AEP Energy Partners, Inc.,</li> <li>• AEP Energy Service Gas Holding Company,</li> <li>• AEP Energy Services, Inc.,</li> <li>• AEP Energy Supply LLC,</li> <li>• AEP Energy, Inc.,</li> <li>• AEP Generating Company,</li> <li>• AEP Generation Resources,</li> <li>• AEP Indiana Michigan Transmission Company, Inc.,</li> <li>• AEP Investments, Inc.,</li> <li>• AEP Kentucky Coal, LLC,</li> <li>• AEP Kentucky Transmission Company, Inc.,</li> <li>• AEP Nonutility Funding LLC,</li> <li>• AEP Ohio Transmission Company, Inc.,</li> <li>• AEP Oklahoma Transmission Company, Inc.,</li> <li>• AEP OnSite Partners, LLC,</li> <li>• AEP Pro Serv, Inc.,</li> <li>• AEP Renewables, LLC,</li> <li>• AEP Renewables Development LLC,</li> <li>• AEP Retail Energy Partners LLC,</li> <li>• AEP Southwestern Transmission Company, Inc.,</li> <li>• AEP T&amp;D Services, LLC,</li> <li>• AEP Texas Company,</li> <li>• AEP Transmission Company, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Chief Executive Officer               <ul style="list-style-type: none"> <li>○ Audit Services</li> <li>○ Chief Executive Officer Administration</li> <li>○ Corporate Human Resources</li> <li>○ Legal</li> <li>○ Strategy &amp; Transformation</li> </ul> </li> <li>• Chief Financial Officer               <ul style="list-style-type: none"> <li>○ Chief Financial Officer Administration</li> <li>○ Corporate Accounting</li> <li>○ Corporate Planning &amp; Budgeting</li> <li>○ Investor Relations</li> <li>○ Tax Services</li> <li>○ Treasury and Risk</li> </ul> </li> <li>• Chief Info &amp; Tech Officer               <ul style="list-style-type: none"> <li>○ Information Technology</li> <li>○ Security</li> </ul> </li> <li>• Chief Operating Officer               <ul style="list-style-type: none"> <li>○ Business Operations and Performance</li> <li>○ Chief Operating Officer Administration</li> <li>○ Corporate Safety &amp; Health</li> <li>○ Grid Solutions</li> <li>○ Real Estate &amp; Workplace Svcs</li> <li>○ Supply Chain &amp; Fleet Operations</li> </ul> </li> <li>• Energy Delivery               <ul style="list-style-type: none"> <li>○ Energy Delivery Administration</li> <li>○ Energy Delivery Operations</li> <li>○ Engineering Services</li> <li>○ Project and Construction Management</li> <li>○ Telecommunications</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• AEP Transmission Holding Company, LLC,</li> <li>• AEP Utility Funding LLC,</li> <li>• AEP Ventures, LLC,</li> <li>• AEP West Virginia Transmission Company, Inc.,</li> <li>• American Electric Power Company,</li> <li>• Appalachian Power Company,</li> <li>• Apple Blossom Wind, LLC,</li> <li>• Auwahi Wind Energy, LLC,</li> <li>• Black Oak Wind, LLC,</li> <li>• Blackhawk Coal Company,</li> <li>• Bold Transmission, LLC,</li> <li>• Boulder Solar II, LLC,</li> <li>• Cedar Creek II, LLC,</li> <li>• Conesville Coal Preparation Company,</li> <li>• CSW Energy, Inc.,</li> <li>• Desert Sky Wind Farm LLC,</li> <li>• Dolet Hills Lignite Co, LLC,</li> <li>• Electric Transmission TX, LLC,</li> <li>• Flat Ridge 3 Wind Energy, LLC,</li> <li>• Grid Assurance LLC,</li> <li>• Great Bend Solar, LLC,</li> <li>• Harry Allen Solar Energy LLC,</li> <li>• Indiana Michigan Power Company,</li> <li>• Kentucky Power Company,</li> <li>• Kingsport Power Company,</li> <li>• Kyte Works, LLC,</li> <li>• NMRD Data Center II, LLC,</li> <li>• NM Renewable Development, LLC,</li> <li>• Ohio Franklin Realty, LLC,</li> <li>• Ohio Power Company,</li> <li>• Oxbow Lignite Company, LLC,</li> <li>• Public Service Company of Oklahoma,</li> <li>• RITELine Indiana, LLC,</li> <li>• Sempra Renewables, LLC,</li> <li>• Snowcap Coal Company, Inc.,</li> <li>• Solar LLCs,</li> <li>• Southwestern Electric Power Company,</li> <li>• Transource Energy, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>○ Transmission Field Services</li> <li>• Energy Supply             <ul style="list-style-type: none"> <li>○ Commercial Operations</li> </ul> </li> <li>• External Affairs             <ul style="list-style-type: none"> <li>○ Chief Customer Officer</li> <li>○ Corporate Communications</li> <li>○ External Affairs Administration</li> <li>○ Federal Affairs</li> <li>○ Regulatory Services</li> </ul> </li> <li>• Generation             <ul style="list-style-type: none"> <li>○ Environmental Services</li> <li>○ Fossil and Hydro Generation</li> <li>○ Generation Administration</li> <li>○ Generation Business Services</li> <li>○ Generation Engineering and Technical Services – Engineering Services</li> <li>○ Generation Engineering and Technical Services – Project and Construction</li> <li>○ Regulated Commercial Operations</li> </ul> </li> <li>• Utilities             <ul style="list-style-type: none"> <li>○ Utility Operations</li> </ul> </li> </ul>
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<p>7</p>	<p>ATC Management Inc</p>	<ul style="list-style-type: none"> <li>• American Transmission Company LLC,</li> <li>• ATC Development Manager Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting &amp; Finance,</li> <li>• Administrative             <ul style="list-style-type: none"> <li>○ Compensation &amp; Benefits</li> <li>○ Corporate Communications</li> <li>○ Facilities</li> <li>○ Human Resources</li> <li>○ Prevention and Response,</li> </ul> </li> <li>• Asset Maintenance &amp; Commissioning,</li> <li>• Asset Planning &amp; Engineering,</li> <li>• Audit &amp; Risk Management,</li> <li>• Business Administration Services             <ul style="list-style-type: none"> <li>○ Data Analytics</li> <li>○ Project Controls Office</li> <li>○ Supply Chain,</li> </ul> </li> <li>• Business Partner Services,</li> <li>• Construction,</li> <li>• Corporate,</li> <li>• Information Technology             <ul style="list-style-type: none"> <li>○ Information Technology</li> <li>○ Communication Infrastructure,</li> </ul> </li> <li>• General Counsel             <ul style="list-style-type: none"> <li>○ Legal</li> <li>○ Policy &amp; Strategy,</li> </ul> </li> <li>• Officers,</li> <li>• External Affairs             <ul style="list-style-type: none"> <li>○ Real Estate</li> <li>○ Environmental</li> <li>○ Government and Public Affairs &amp; Local Relations</li> <li>○ Customer Relations,</li> </ul> </li> <li>• Real Time Operations,</li> <li>• System Operations,</li> </ul>

8	Avangrid Service Company	<ul style="list-style-type: none"> <li>• IB. Distrib. Electrica SA,</li> <li>• Avangrid Networks, Inc.,</li> <li>• New York State Electric &amp; Gas Corporation,</li> <li>• Rochester Gas and Electric Corporation,</li> <li>• RGS Energy Group, Inc.,</li> <li>• Central Maine Power Company,</li> <li>• CMP Group, Inc.,</li> <li>• The Union Water Power Company,</li> <li>• Maine Electric Power Company, Inc.,</li> <li>• Norvarco,</li> <li>• Chester SVC Partnership,</li> <li>• Avangrid Enterprises, Inc.,</li> <li>• Maine Natural Gas Corporation,</li> <li>• Avangrid New York Transco,</li> <li>• NECEC Transmission LLC,</li> <li>• UIL Holdings Corporation,</li> <li>• The United Illuminating Electric,</li> <li>• Connecticut Natural Gas Corporation,</li> <li>• The Southern Connecticut Gas Company,</li> <li>• The Berkshire Gas Company,</li> </ul>	<ul style="list-style-type: none"> <li>• System Planning</li> <li>• Governing Bodies,</li> <li>• Innovation, Environment &amp; Quality,</li> <li>• Real Estate and General Services,</li> <li>• Corporate Security,</li> <li>• IT,</li> <li>• Human Resources,</li> <li>• Purchasing,</li> <li>• Insurance,</li> <li>• Finance and Treasury,</li> <li>• Risks,</li> <li>• Investor Relations,</li> <li>• Control,</li> <li>• Administration,</li> <li>• Tax,</li> <li>• Communications,</li> <li>• Legal Services,</li> <li>• Corporate Development,</li> <li>• DG Businesses and Regulation,</li> <li>• External Audit,</li> <li>• Secretary of the Board,</li> <li>• Internal Audit,</li> <li>• Compliance</li> </ul>
9	Black Hills Service Company, LLC	<ul style="list-style-type: none"> <li>• Wyodak Resources Development Corp,</li> <li>• Black Hills Wyoming, LLC,</li> <li>• Black Hills Electric Generation, LLC,</li> <li>• Black Hills Non-Regulated Holdings, LLC,</li> <li>• Black Hills Colorado IPP, LLC,</li> <li>• N780BH, LLC,</li> <li>• Black Hills Colorado Wind, LLC,</li> <li>• Northern Iowa Wind Power, LLC,</li> <li>• Black Hills Corporation,</li> <li>• Black Hills Exploration and Production, Inc.,</li> <li>• Black Hills Wyoming Gas, LLC,</li> <li>• Black Hills Power, Inc.,</li> <li>• Cheyenne Light, Fuel and Power Company,</li> <li>• Black Hills Energy Services Company,</li> <li>• Black Hills/Kansas Gas Utility Company, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Accrual Entries</li> <li>• Accounting Systems</li> <li>• Asset Blended</li> <li>• Asset Customer</li> <li>• Asset Planning &amp; Data Mana</li> <li>• Asset Programs</li> <li>• Asset Transmission</li> <li>• Benefit Loadings</li> <li>• Benefit Pooled</li> <li>• Community Affairs</li> <li>• Compliance Gas</li> <li>• Corporate Accounting</li> <li>• Credit and Risk</li> <li>• Customer Serv Call Centers</li> <li>• Customer Service Support</li> </ul>

	<ul style="list-style-type: none"> <li>• Black Hills/Iowa Gas Utility Company, LLC,</li> <li>• Black Hills Colorado Electric, LLC,</li> <li>• Black Hills Colorado Gas, Inc,</li> <li>• Black Hills Shoshone Pipeline, LLC,</li> <li>• Black Hills Energy Arkansas, Inc.,</li> <li>• Rocky Mountain Natural Gas, LLC,</li> <li>• Black Hills Nebraska Gas, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Electric Asset Management</li> <li>• Electric Meter Services</li> <li>• Energy Efficiency/DSM</li> <li>• Engineering Resources</li> <li>• Environmental Services</li> <li>• Exec Management-Utilities</li> <li>• Executive Management</li> <li>• FERC Tariff and Compliance</li> <li>• Field Support Services</li> <li>• Fleet Serv</li> <li>• Gas Asset Optimization</li> <li>• Gas Measurement Serv</li> <li>• Generation Dispatch Power Marketing</li> <li>• Generation Plant Operations</li> <li>• Governmental Affairs</li> <li>• Growth Strategy &amp; Innovation</li> <li>• HR Rotation Program</li> <li>• HR Talent Management</li> <li>• HR Total Rewards</li> <li>• Human Resources</li> <li>• Human Resources Corp</li> <li>• In-House Corporate Solutions (Communications)</li> <li>• Internal Audit</li> <li>• IT Security - Compliance-Risk</li> <li>• IT Administration</li> <li>• IT Bus Apps Customer Systems</li> <li>• IT Bus Apps Fin &amp; HR Systems</li> <li>• IT Bus Apps-Adds-Integ</li> <li>• IT Bus Apps-Pmo-Ecm-Gov</li> <li>• IT Bus Apps-Utility Systems</li> <li>• IT Bus Apps-Web</li> <li>• IT Infrastructure &amp; Ops</li> <li>• Land Rights</li> <li>• Legal - Corporate</li> <li>• Maintenance</li> <li>• NERC Compliance</li> <li>• Northern Gas Generation</li> <li>• Operational Services</li> </ul>
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			<ul style="list-style-type: none"> <li>• Pipeline and System Integrity</li> <li>• Pipeline Safety and Compliance Gas</li> <li>• Power Delivery Management</li> <li>• Property Accounting</li> <li>• Pwr Supply and Renewables</li> <li>• Real Estate &amp; Facilities</li> <li>• Records Management</li> <li>• Regulatory and Finance</li> <li>• Relay &amp; Controls</li> <li>• Reliability Center</li> <li>• Safety</li> <li>• Service Guard Marketing</li> <li>• Substation/Protection Engineering</li> <li>• Supply Chain</li> <li>• Supply Chain Management</li> <li>• Tax</li> <li>• Technical Training Safety</li> <li>• Transmission &amp; Distribution Planning</li> <li>• Transmission &amp; Distribution Engineering</li> <li>• Transmission Engineering Services (TES)</li> <li>• Treasury</li> <li>• Utility Process &amp; System Training</li> <li>• Vegetation Management</li> </ul>
10	CenterPoint Energy Service Company, LLC	<ul style="list-style-type: none"> <li>• CenterPoint Energy Houston Electric, LLC,</li> <li>• CenterPoint Energy Resources Corp.,</li> <li>• CenterPoint MRT Services Company,</li> <li>• Enable Midstream Partners, LP,</li> <li>• National Furnace Company,</li> <li>• Arkansas Louisiana Finance Corporation,</li> <li>• CenterPoint Energy Properties, Inc.,</li> <li>• CenterPoint Energy Arkla,</li> <li>• CenterPoint Energy Minnesota Gas,</li> <li>• Minnesota Intrastate Pipeline Company,</li> <li>• CenterPoint Energy Intrastate Pipelines, LLC,</li> <li>• CenterPoint Energy Entex,</li> <li>• CenterPoint Energy Mobile Energy Solutions, Inc.,</li> <li>• Allied Materials Corporation,</li> <li>• CenterPoint Energy Investment Management, Inc.,</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative and service functions involving system-wide coordination, strategy, and compliance functions</li> </ul>

		<ul style="list-style-type: none"> <li>• CenterPoint Energy, Inc.,</li> <li>• Utility Holding, LLC,</li> <li>• Labo Land Holdings, LLC,</li> <li>• CenterPoint Energy Home Service Plus, LLC,</li> <li>• CenterPoint Energy Intelligent Energy Solutions, LLC,</li> <li>• CenterPoint Energy Midstream Administration,</li> <li>• Vectren Corporation,</li> <li>• Energy Systems Group, LLC,</li> <li>• CNP Foundation, Inc.,</li> <li>• Indiana Gas Company, Inc.,</li> <li>• Vectren Energy Delivery of OH, Inc.,</li> <li>• Vectren Utility Holdings, Inc.,</li> <li>• Vectren Energy Services Corporation,</li> <li>• Vectren Capital, Corp,</li> <li>• Vectren Corp,</li> <li>• Southern Indiana Gas &amp; Electric Company</li> </ul>	
<p>11</p>	<p>Columbia Pipeline Group Service Company</p>	<ul style="list-style-type: none"> <li>• Columbia Gas Transmission LLC,</li> <li>• Columbia Gulf Transmission Co,</li> <li>• Crossroads Pipeline Company,</li> <li>• Portland Natural Gas Transmission System</li> </ul>	<ul style="list-style-type: none"> <li>• President &amp; CEO</li> <li>• Executive V.P:             <ul style="list-style-type: none"> <li>○ Commercial Operation,</li> <li>○ Project Planning and Operations</li> </ul> </li> <li>• CFO:             <ul style="list-style-type: none"> <li>○ Controller:                 <ul style="list-style-type: none"> <li>▪ Financial Reporting &amp; Corporate Accounting,</li> <li>▪ Cost Accounting and Business Unit Accounting,</li> <li>▪ Financial Planning &amp; Budget Reporting</li> </ul> </li> <li>○ Risk Management,</li> <li>○ Department of Taxation,</li> <li>○ Capital Markets &amp; Treasury</li> </ul> </li> <li>• Stakeholder Relations &amp; Technical Services &amp; General Counsel:             <ul style="list-style-type: none"> <li>○ Internal Audit &amp; Compliance,                 <ul style="list-style-type: none"> <li>▪ SOX Compliance,</li> </ul> </li> <li>○ Legal &amp; Corporate Secretarial,</li> <li>○ Legal – Land/Litigation,</li> <li>○ Legal – Corporate/Commercial,</li> <li>○ Legal – Compliance &amp; Ethics</li> </ul> </li> <li>• Corporate Services             <ul style="list-style-type: none"> <li>○ Human Resources:                 <ul style="list-style-type: none"> <li>▪ Compensation &amp; Benefits,</li> <li>▪ HR Operations</li> </ul> </li> </ul> </li> </ul>

			<ul style="list-style-type: none"> <li>• Information Services</li> <li>• Facility Services &amp; Supply Chain</li> </ul>
12	Dominion Energy Services, Inc.	<ul style="list-style-type: none"> <li>• 96WI 8ME LLC,</li> <li>• Birdseye Renewable Energy, LLC,</li> <li>• Blackville Solar LLC,</li> <li>• Blue Ocean Energy Marine, LLC,</li> <li>• BrightSuite Home, LLC,</li> <li>• BrightSuite, Inc.,</li> <li>• Buckingham Solar I LLC,</li> <li>• Clean Energy Asset USA LLC,</li> <li>• Clipperton Holdings LLC,</li> <li>• CNG Coal Company,</li> <li>• Correctional Solar LLC,</li> <li>• DE 700 Canal Place, LLC,</li> <li>• DE Arlington Solar, LLC,</li> <li>• Denmark Solar, LLC,</li> <li>• Dominion ACP Holding, Inc.,</li> <li>• Dominion Atlantic Coast Pipeline, LLC,</li> <li>• Dominion Capital, Inc.,</li> <li>• Dominion Energy Fuel Services, Inc.,</li> <li>• Dominion Energy Generation Marketing, Inc.,</li> <li>• Dominion Energy Kewaunee, Inc.,</li> <li>• Dominion Energy Nuclear Connecticut, Inc.,</li> <li>• Dominion Energy Overthrust Pipeline, LLC,</li> <li>• Dominion Energy Payroll Company, Inc.,</li> <li>• Dominion Energy Privatization Texas, LLC,</li> <li>• Dominion Energy Questar Corporation,</li> <li>• Dominion Energy Questar Pipeline Services, Inc.,</li> <li>• Dominion Energy Questar Pipeline, LLC,</li> <li>• Dominion Energy RNG Holdings, Inc.,</li> <li>• Dominion Energy RNG Holdings II, Inc.,</li> <li>• Dominion Energy Solutions, Inc.,</li> <li>• Dominion Energy South Carolina, Inc.,</li> <li>• Dominion Energy Technical Solutions, Inc.,</li> <li>• Dominion Energy Technologies, Inc.,</li> <li>• Dominion Energy Terminal Company, Inc.,</li> <li>• Dominion Energy, Inc.,</li> <li>• Dominion Generation, Inc.,</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting: <ul style="list-style-type: none"> <li>○ Payroll Processing,</li> <li>○ Accounts Payable Processing,</li> <li>○ Fixed Assets Accounting</li> </ul> </li> <li>• Information Technology, Electronic Transmission and Computer Services and Software/Hardware Pooling: <ul style="list-style-type: none"> <li>○ LDC/EDC Computer Applications,</li> <li>○ Other Computer Applications, including Software/Hardware Pooling,</li> <li>○ Telecommunications Applications</li> </ul> </li> <li>• Human Resources: <ul style="list-style-type: none"> <li>○ Human Resources</li> </ul> </li> <li>• Business Services: <ul style="list-style-type: none"> <li>○ Facility Services,</li> <li>○ Fleet Administration,</li> <li>○ Security,</li> <li>○ Gas Supply</li> </ul> </li> <li>• Risk Management: <ul style="list-style-type: none"> <li>○ Risk Management</li> </ul> </li> <li>• Corporate Planning: <ul style="list-style-type: none"> <li>○ Corporate Planning</li> </ul> </li> <li>• Supply Chain: <ul style="list-style-type: none"> <li>○ Purchasing</li> </ul> </li> <li>• Tax: <ul style="list-style-type: none"> <li>○ Tax Accounting and Compliance</li> </ul> </li> <li>• Customer Services: <ul style="list-style-type: none"> <li>○ Customer Payment (Remittance) Processing</li> </ul> </li> <li>• Treasury/ Finance: <ul style="list-style-type: none"> <li>○ Treasury and Cash Management</li> </ul> </li> <li>• Office Space and Equipment: <ul style="list-style-type: none"> <li>○ Corporate Office and Electricity</li> </ul> </li> <li>• Other Service: <ul style="list-style-type: none"> <li>○ Accounting Services,</li> <li>○ Audit,</li> <li>○ Business Planning,</li> <li>○ Corporate Secretary,</li> <li>○ Energy Marketing,</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Dominion Greenbrier, Inc.,</li> <li>• Dominion Lands, Inc.,</li> <li>• Dominion Privatization Pennsylvania, LLC,</li> <li>• Dominion Privatization South Carolina, LLC,</li> <li>• Dominion Products and Services, Inc.,</li> <li>• Dominion Retail Gas Holdings, Inc.,</li> <li>• Dominion Solar Projects D, Inc.,</li> <li>• Dominion Solar Projects III, Inc.,</li> <li>• Dominion Solar Projects IV, Inc.,</li> <li>• Dominion Solar Projects, V, Inc.,</li> <li>• Dominion Solar Projects VI, Inc.,</li> <li>• Dominion Solar Projects VII, Inc.,</li> <li>• Dominion Solar Services, Inc.,</li> <li>• Dominion Voltage, Inc.,</li> <li>• Eastern Shore Solar LLC,</li> <li>• Fremont Farm, LLC,</li> <li>• Greensville Company Solar, LLC,</li> <li>• Hardin Solar Energy, LLC,</li> <li>• Hecate Energy Cherrydale LLC,</li> <li>• Hectate Energy Clarke County LLC,</li> <li>• Hope Gas, Inc.,</li> <li>• Innovative Solar 37, LLC,</li> <li>• Madison Solar, LLC,</li> <li>• Moffett Solar 1, LLC,</li> <li>• Moorings Farm 2, LLC,</li> <li>• Mustang Solar, LLC,</li> <li>• Pikeville Farm, LLC,</li> <li>• Public Service Company of North Carolina,</li> <li>• Questar Energy Services, Inc.,</li> <li>• Questar Field Services, LLC,</li> <li>• Questar Gas Company,</li> <li>• Questar InfoComm, Inc.,</li> <li>• Questar Southern Trails Pipeline Company,</li> <li>• Ridgeland Solar Farm I, LLC,</li> <li>• SCANA Corporation,</li> <li>• Scott-II Solar LLC,</li> <li>• Seabrook Solar, LLC,</li> <li>• Siler Solar, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>○ Environment,</li> <li>○ Executive,</li> <li>○ External Affairs,</li> <li>○ General Services,</li> <li>○ Legal,</li> <li>○ Operations,</li> <li>○ Travel Services,</li> <li>○ Aviation</li> </ul>
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		<ul style="list-style-type: none"> <li>• South Carolina Generating Company, Inc.,</li> <li>• Southampton Solar LLC,</li> <li>• Summit Farms Solar, LLC,</li> <li>• Sussex Drive Solar Project, LLC,</li> <li>• The East Ohio Gas Company,</li> <li>• Trask East Solar, LLC,</li> <li>• TWE Myrtle Solar Project, LLC,</li> <li>• Virginia Electric and Power Company,</li> <li>• Virginia Power Nuclear Services Company,</li> <li>• Virginia Power Services Energy Corp., Inc.,</li> <li>• Virginia Power Services, LLC,</li> <li>• VP Property, Inc.,</li> <li>• Wakefield Solar, LLC,</li> <li>• Wexpro Company,</li> <li>• Wexpro Development Company,</li> <li>• Wexpro II Company,</li> <li>• Wilkinson Solar LLC,</li> <li>• Yemassee Solar, LLC</li> </ul>	
<p>13</p>	<p>Duke Energy Business Services, LLC</p>	<ul style="list-style-type: none"> <li>• Bison Insurance Company, Ltd,</li> <li>• Cinergy Corp,</li> <li>• Cinergy Receivables, LLC,</li> <li>• DE Commercial Enterprises Inc.,</li> <li>• DE Renewables Commercial LLC,</li> <li>• DE Transmission Holding Company, LLC,</li> <li>• DEGS NC Solar LLC,</li> <li>• DEGS Solar, LLC,</li> <li>• DEGS Wind I, LLC,</li> <li>• Duke Energy Carolinas, LLC,</li> <li>• Duke Energy Corp,</li> <li>• Duke Energy Corporate Services, Inc.,</li> <li>• Duke Energy Florida (f/k/a Progress Energy Florida),</li> <li>• Duke Energy Indiana, Inc.,</li> <li>• Duke Energy Kentucky, Inc.,</li> <li>• Duke Energy Ohio, Inc.,</li> <li>• Duke Energy Ohio, Inc. (Non-Reg),</li> <li>• Duke Energy Pipeline Holding,</li> <li>• Duke Energy Progress (f/k/a Progress Energy Carolinas, Inc.),</li> <li>• Duke Energy Registration Services, Inc.,</li> </ul>	<ul style="list-style-type: none"> <li>• Information Systems,</li> <li>• Meters,</li> <li>• Transportation,</li> <li>• System Maintenance,</li> <li>• Marketing and Customer Relations,</li> <li>• Transmission and Distribution Engineering and Construction,</li> <li>• Power Engineering and Construction,</li> <li>• Human Resources,</li> <li>• Supply Chain,</li> <li>• Facilities,</li> <li>• Accounting,</li> <li>• Power and Gas Planning and Operations,</li> <li>• Public Affairs,</li> <li>• Legal,</li> <li>• Rates,</li> <li>• Finance,</li> <li>• Rights of Way,</li> <li>• Internal Auditing,</li> <li>• Environmental, Health and Safety,</li> <li>• Fuels,</li> </ul>

		<ul style="list-style-type: none"> <li>• Duke Energy Services Inc.,</li> <li>• Duke Generation Services Holding Co. Inc.,</li> <li>• Duke Technologies Inc.,</li> <li>• Frontier Windpower II LLC,</li> <li>• Frontier Windpower LLC,</li> <li>• KO Transmission,</li> <li>• Piedmont Natural Gas Company Inc.,</li> <li>• REC Solar Commercial Corp,</li> <li>• Symphony Breeze, LLC,</li> <li>• Symphony Sun, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Investor Relations,</li> <li>• Planning,</li> <li>• Executive,</li> <li>• Nuclear Development</li> </ul>
<p>14</p>	<p>Entergy Enterprises, Inc</p>	<ul style="list-style-type: none"> <li>• EAM Nelson Holding, LLC,</li> <li>• EK Holding III, LLC,</li> <li>• EN Services LP,</li> <li>• Entergy Asset Management,</li> <li>• Entergy Global, LLC,</li> <li>• Entergy Int Holdings Ltd, LLC-E,</li> <li>• Entergy Int Investments No 2,</li> <li>• Entergy International Ltd, LLC,</li> <li>• Entergy Nuclear Fitzpatrick, LLC,</li> <li>• Entergy Nuclear Holding Corp No. 1,</li> <li>• Entergy Nuclear Indian Point 2, LLC,</li> <li>• Entergy Nuclear Indian Point 3, LLC,</li> <li>• Entergy Nuclear Vermont Investment Corp,</li> <li>• Entergy Nuclear, Inc.,</li> <li>• Entergy Nuclear Nebraska, LLC,</li> <li>• Entergy Nuclear Operations, Inc.,</li> <li>• Entergy Nuclear Palisades, LLC,</li> <li>• Entergy Nuclear Power Mktg, LLC,</li> <li>• Entergy Power E&amp;C Holding, LLC,</li> <li>• Entergy Power, LLC,</li> <li>• Entergy Power RS LLC,</li> <li>• Entergy Power Ops U.S. Inc.,</li> <li>• Entergy Solutions Ltd,</li> <li>• Entergy Tech Holding Co-Parent,</li> <li>• EP Gas Holding Corp,</li> <li>• EP Gas Operations Corp,</li> <li>• EWO Marketing, LLC,</li> <li>• EWO WIND II - EPGC,</li> </ul>	<ul style="list-style-type: none"> <li>• Administration,</li> <li>• Corporate Support - General,</li> <li>• EWC - Entergy Wholesale Commodities,</li> <li>• Finance and Accounting,</li> <li>• Information Technology,</li> <li>• System Benefits,</li> <li>• System Planning,</li> <li>• Wholesale Ops Corporate Support,</li> <li>• Wholesale Ops Finance</li> </ul>

		<ul style="list-style-type: none"> <li>• TLG Services, Inc.,</li> <li>• Vermont Yankee Asset Retirement Management, LLC,</li> <li>• Entergy Corporation,</li> <li>• Entergy Resources, Inc.,</li> <li>• Entergy Services, LLC,</li> <li>• Indian Point 1&amp;2, LLC,</li> <li>• Indian Point 3, LLC,</li> <li>• Merchant Holdings Prop, LLC,</li> <li>• Palisades Nuclear Power, LLC,</li> <li>• TLG Services,</li> <li>• AR Searcy Project Company, LLC</li> </ul>	
15	Entergy Nuclear Operations, Inc	<ul style="list-style-type: none"> <li>• Entergy Enterprises, Inc.,</li> <li>• Entergy Nuclear Operations, Inc.,</li> <li>• Merchant Holdings Prop, LLC,</li> <li>• Entergy Operations, Inc.,</li> <li>• Entergy Services, LLC,</li> <li>• Vermont Yankee Asset Retirement Management, LLC,</li> <li>• Deferred</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate - Legal Services,</li> <li>• Corporate - Public Relations,</li> <li>• Corporate Support - General,</li> <li>• EWC - Entergy Wholesale Commodities,</li> <li>• Finance and Accounting,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Nuclear - Non-Regulated,</li> <li>• Nuclear Corporate Support,</li> <li>• Nuclear Operations,</li> <li>• System Benefits</li> </ul>
16	Entergy Operations, Inc	<ul style="list-style-type: none"> <li>• Entergy Arkansas, LLC,</li> <li>• Entergy Enterprises, Inc.,</li> <li>• Entergy Louisiana, LLC,</li> <li>• Entergy Mississippi, LLC,</li> <li>• Entergy New Orleans, LLC,</li> <li>• Entergy Nuclear Operations, Inc.,</li> <li>• Entergy Operations, Inc.,</li> <li>• Entergy Services, LLC,</li> <li>• Entergy Texas, Inc.,</li> <li>• System Energy Resources, Inc.,</li> <li>• Deferred</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate Support – General,</li> <li>• Finance and Accounting,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Nuclear – Regulated,</li> <li>• Nuclear Corporate Support,</li> <li>• Nuclear Operations,</li> <li>• Supply Chain,</li> <li>• System Benefits</li> </ul>
17	Entergy Services, LLC	<ul style="list-style-type: none"> <li>• Entergy Arkansas, LLC,</li> <li>• Entergy Corporation,</li> <li>• Entergy Enterprises, Inc.,</li> <li>• Entergy Louisiana, LLC,</li> <li>• Entergy Mississippi, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Administration,</li> <li>• Corporate – Legal Services,</li> <li>• Corporate - Office of the Chief Executive Officer,</li> <li>• Corporate – Public Relations,</li> <li>• Corporate Support - General,</li> </ul>

		<ul style="list-style-type: none"> <li>• Entergy New Orleans, LLC,</li> <li>• Entergy Operations, Inc.,</li> <li>• Entergy Services Holding, Inc.,</li> <li>• Entergy Services, LLC,</li> <li>• Entergy Texas, Inc.,</li> <li>• Entergy Transco Texas, LLC,</li> <li>• Entergy Utility Holding Company, LLC,</li> <li>• Morpheus One Holdings, LLC,</li> <li>• System Energy Resources, Inc.,</li> <li>• Deferred</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Service,</li> <li>• Customer Service Support,</li> <li>• Distribution,</li> <li>• EWC – Entergy Wholesale Commodities,</li> <li>• Finance and Accounting,</li> <li>• Fossil Operations,</li> <li>• Gas Operations,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Nuclear – Non-Regulated,</li> <li>• Nuclear - Regulated,</li> <li>• Nuclear Corporate Support,</li> <li>• Nuclear Operations,</li> <li>• Operations and Performance,</li> <li>• President,</li> <li>• Regulatory,</li> <li>• Supply Chain,</li> <li>• System Benefits,</li> <li>• System Planning,</li> <li>• Transmission,</li> <li>• Utility Management and Support Services,</li> <li>• Utility Support - Distribution,</li> <li>• Utility Support - Operations,</li> <li>• Wholesale Ops Corporate Support,</li> <li>• Wholesale Ops Finance</li> </ul>
18	Evergy Services, Inc.	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Evergy Services, Inc. did not provide services to Evergy, Inc. or its subsidiaries during 2021.</li> </ul>
19	Eversource Energy Service Company	<ul style="list-style-type: none"> <li>• Connecticut Light and Power Company,</li> <li>• Eversource Energy Parent,</li> <li>• Eversource Energy Transmission Ventures Inc.,</li> <li>• Eversource Gas Company of Massachusetts,</li> <li>• Eversource Gas Transmission II LLC,</li> <li>• Eversource Investment LLC,</li> <li>• Eversource Investment Service Company,</li> <li>• Eversource LNG Service Company LLC,</li> <li>• Eversource Water Ventures,</li> <li>• Harbor Electric Energy Company,</li> <li>• Hopkinton LNG Corp,</li> </ul>	<ul style="list-style-type: none"> <li>• Benefits,</li> <li>• Building Rent and Maintenance,</li> <li>• Corporate Relations,</li> <li>• COVID-19,</li> <li>• Customer Group,</li> <li>• Depreciation,</li> <li>• Electric Distribution,</li> <li>• Energy Supply,</li> <li>• Engineering and Emergency Prep,</li> <li>• Enterprise Energy Strat + Bus Dev,</li> <li>• ERM and Claims + Insurance,</li> </ul>



		<ul style="list-style-type: none"> <li>• HWP Company,</li> <li>• North Atlantic Energy Corporation,</li> <li>• North Atlantic Energy Service Corporation,</li> <li>• Northeast Generation Services Company,</li> <li>• Northern Pass Transmission LLC,</li> <li>• NSTAR Electric Company,</li> <li>• NSTAR Gas Company,</li> <li>• NU Enterprises,</li> <li>• Properties Inc.,</li> <li>• Public Service Company of New Hampshire,</li> <li>• Renewable Properties Inc.,</li> <li>• The Rocky River Realty Company,</li> <li>• Yankee Energy System Inc.,</li> <li>• Yankee Gas Services Company</li> </ul>	<ul style="list-style-type: none"> <li>• Finance and Accounting,</li> <li>• Gas Integration,</li> <li>• General Administration,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Internal Audit + Security,</li> <li>• Investor Relations,</li> <li>• Legal,</li> <li>• Miscellaneous,</li> <li>• New Business Improvement,</li> <li>• Operations Administration,</li> <li>• Operations Services,</li> <li>• Safety,</li> <li>• Strategy + Business Dev,</li> <li>• Supply Chain + Real Estate + Materials,</li> <li>• Taxes,</li> <li>• Transmission</li> </ul>
20	Exelon Business Services Company, LLC	<ul style="list-style-type: none"> <li>• Aerolab Enterprises, LLC,</li> <li>• Atlantic City Electric Co.,</li> <li>• ATNP Finance Company,</li> <li>• Baltimore Gas and Electric Company,</li> <li>• BGE Home Products &amp; Services, LLC,</li> <li>• Breakerbox, LLC,</li> <li>• CER Generation LLC (Hillabee),</li> <li>• Commonwealth Edison Company,</li> <li>• Constellation Energy Comm Grp.,</li> <li>• Constellation Energy Nuclear Group, LLC (dba CENG, LLC),</li> <li>• Constellation Mystic Pwr, LLC,</li> <li>• Constellation NewEnergy, Inc.,</li> <li>• Constellation Power Inc.,</li> <li>• Data Center Enterprises, LLC,</li> <li>• Delmarva Power &amp; Light Co.,</li> <li>• Distrigas of Massachusetts LLC,</li> <li>• Exelon Corporation,</li> <li>• Exelon Enterprises Company, LLC,</li> <li>• Exelon Framingham, LLC,</li> <li>• Exelon Generation Company, LLC,</li> <li>• Exelon Generation Finance Company, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate Governance Areas:             <ul style="list-style-type: none"> <li>○ Communications,</li> <li>○ Corporate Governance (including Corporate Secretary),</li> <li>○ Corporate Security,</li> <li>○ Corporate Strategy,</li> <li>○ Corporate Development,</li> <li>○ Executive,</li> <li>○ Finance,</li> <li>○ General Company Activities including interest, severance, and income taxes,</li> <li>○ Government Affairs and Public Policy,</li> <li>○ Legal Services</li> </ul> </li> <li>• Exelon Utility Focused Items:             <ul style="list-style-type: none"> <li>○ Transmission Operations and Planning</li> </ul> </li> <li>• Human Resources:             <ul style="list-style-type: none"> <li>○ Human Resources,</li> <li>○ Human Resources - Labor Relations</li> </ul> </li> <li>• Real Estate:             <ul style="list-style-type: none"> <li>○ Real Estate Services</li> </ul> </li> <li>• Supply:             <ul style="list-style-type: none"> <li>○ Supply – purchasing / activities related to materials,</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>• Exelon New Boston, LLC,</li> <li>• Exelon New England Holdings, LLC,</li> <li>• Exelon Nuclear Security, LLC,</li> <li>• Exelon PowerLabs, LLC,</li> <li>• Exelon Solar Chicago, LLC,</li> <li>• Exelon Transmission Company, LLC,</li> <li>• Exelon West Medway, LLC,</li> <li>• Exelon West Medway II, LLC,</li> <li>• Exelon Wind, LLC,</li> <li>• Exelon Wyman, LLC,</li> <li>• Exelorate Enterprises, LLC,</li> <li>• PECO Energy Company,</li> <li>• PEPCO Holdings Inc.,</li> <li>• PHI Service Company,</li> <li>• Potomac Electric Power Co.,</li> <li>• RITELine Transmission Development, LLC</li> </ul>	<ul style="list-style-type: none"> <li>○ Supply – combined materials and services related purchasing / activities,</li> <li>○ Supply Administration,</li> <li>○ Credit card Program Administration</li> <li>• Information Technology (IT):             <ul style="list-style-type: none"> <li>○ IT related to corporate governance areas,</li> <li>○ IT related to utility customer systems,</li> <li>○ IT related to Human Resources,</li> <li>○ IT projects and applications,</li> <li>○ IT governance and other items of general nature</li> </ul> </li> </ul>
<p>21</p>	<p>FirstEnergy Service Company</p>	<ul style="list-style-type: none"> <li>• AET PATH Company, LLC,</li> <li>• Allegheny Generating Company,</li> <li>• Allegheny Energy Supply, LLC,</li> <li>• Allegheny Ventures,</li> <li>• American Transmission Systems, Incorporated,</li> <li>• FirstEnergy Corp.,</li> <li>• FirstEnergy Properties, Inc.,</li> <li>• FirstEnergy Transmission, LLC,</li> <li>• FirstEnergy Ventures Corporation,</li> <li>• GPU Nuclear, Inc.,</li> <li>• Jersey Central Power &amp; Light Company,</li> <li>• Metropolitan Edison Company,</li> <li>• Mid-Atlantic Interstate Transmission, LLC,</li> <li>• Monongahela Power Company,</li> <li>• Ohio Edison Company,</li> <li>• PATH Allegheny Maryland Transmission Co, LLC,</li> <li>• PATH Allegheny Trans. Co,</li> <li>• PATH Allegheny VA Trans,</li> <li>• Pennsylvania Electric Company,</li> <li>• Pennsylvania Power Company,</li> <li>• Suvon, Inc.,</li> <li>• The Cleveland Electric Illuminating Company,</li> </ul>	<ul style="list-style-type: none"> <li>• President &amp; CEO Support,</li> <li>• Transmission, Distribution Operations Support,</li> <li>• Compliance &amp; Regulated Services Support,</li> <li>• Customer Support,</li> <li>• SVP &amp; Chief Financial Officer,</li> <li>• Strategy, LT Planning &amp; Business Performance Support,</li> <li>• Information Technology Support,</li> <li>• Supply Chain Support,</li> <li>• Accounting and Tax Support,</li> <li>• Treasury Support,</li> <li>• Risk Support,</li> <li>• Internal Auditing Support,</li> <li>• Legal Support,</li> <li>• Rates and Regulatory Affairs Support,</li> <li>• External Affairs Support,</li> <li>• Corporate Affairs &amp; Community Involvement Support,</li> <li>• Human Resources &amp; Corporate Services Support,</li> <li>• Ethics &amp; Compliance Support</li> </ul>

		<ul style="list-style-type: none"> <li>• The Potomac Edison Company,</li> <li>• The Toledo Edison Company,</li> <li>• Trans-Allegheny Interstate Line Company,</li> <li>• West Penn Power Company</li> </ul>	
22	GridLiance Management, LLC	<ul style="list-style-type: none"> <li>• GridLiance Heartland, LLC,</li> <li>• GridLiance High Plains, LLC,</li> <li>• GridLiance East, LLC,</li> <li>• GridLiance West, LLC,</li> <li>• GridLiance West Holding, LLC,</li> <li>• GridLiance Holdco, LP,</li> <li>• GridLiance Texas, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate oversight,</li> <li>• Human resources,</li> <li>• Records management,</li> <li>• Risk management,</li> <li>• Payroll services,</li> <li>• Legal,</li> <li>• Administrative,</li> <li>• IT services</li> </ul>
23	LG&E and KU Services Company	<ul style="list-style-type: none"> <li>• Louisville Gas and Electric Company,</li> <li>• Kentucky Utilities Company,</li> <li>• Western Kentucky Energy Corp.,</li> <li>• FCD LLC,</li> <li>• LG&amp;E and KU Energy LLC,</li> <li>• LG&amp;E and KU Capital LLC,</li> <li>• PPL Services Corporation,</li> <li>• PPL Energy Holdings, LLC,</li> <li>• PPL Strategic Development, LLC,</li> <li>• PPL EU Services Corporation,</li> <li>• PPL Rhode Island Holdings, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Service,</li> <li>• Sales and Marketing,</li> <li>• Economic Development and Major Accounts,</li> <li>• Meter Reading Services,</li> <li>• Cash Remittance,</li> <li>• Billing Integrity,</li> <li>• Energy Efficiency,</li> <li>• Smart Grid Strategy,</li> <li>• Field Services,</li> <li>• CCS Retail Business Readiness,</li> <li>• Project Engineering,</li> <li>• System Laboratory,</li> <li>• Generation,</li> <li>• Generation Services,</li> <li>• Fuel Procurement,</li> <li>• Strategy, Reliability and Tariffs,</li> <li>• Operations and Construction,</li> <li>• Reliability and Compliance,</li> <li>• Energy Marketing,</li> <li>• Market Forecasting,</li> <li>• Load Forecasting,</li> <li>• Generation Planning and Analysis,</li> <li>• Network Trouble and Dispatch,</li> <li>• Electric Engineering,</li> <li>• Distribution Asset Management,</li> <li>• Forestry,</li> </ul>

			<ul style="list-style-type: none"> <li>• Substation Construction and Maintenance,</li> <li>• Electric Reliability/Analysis,</li> <li>• Safety and Technical Training,</li> <li>• Budgeting,</li> <li>• Financial Planning,</li> <li>• Accounting and Reporting,</li> <li>• Property Accounting,</li> <li>• Revenue Accounting,</li> <li>• Payroll,</li> <li>• Tax Accounting, Compliance and Reporting,</li> <li>• Audit Services,</li> <li>• Sarbanes-Oxley Compliance,</li> <li>• Treasury and Corporate Finance,</li> <li>• Risk Management,</li> <li>• Credit Administration,</li> <li>• Energy Marketing Trading Controls,</li> <li>• Supply Chain,</li> <li>• Accounts Payable,</li> <li>• IT Security,</li> <li>• IT Applications Development and Support,</li> <li>• IT Infrastructure and Operations,</li> <li>• IT Governance,</li> <li>• IT Business Services,</li> <li>• IT Major Projects,</li> <li>• Legal,</li> <li>• Compliance,</li> <li>• Environmental Affairs,</li> <li>• Regulatory Affairs,</li> <li>• Government Affairs Management,</li> <li>• Internal Communications,</li> <li>• External and Brand Communications,</li> <li>• Public Affairs Management,</li> <li>• Facilities and Buildings,</li> <li>• Security,</li> <li>• Production Mail,</li> <li>• Document,</li> <li>• Process Management and Performance,</li> <li>• Right-of-Way,</li> </ul>
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			<ul style="list-style-type: none"> <li>• Transportation,</li> <li>• HR Compensation,</li> <li>• HR Benefits,</li> <li>• Other HR Services,</li> <li>• Health and Safety,</li> <li>• Executive Management</li> </ul>
24	Liberty Energy Utilities (New Hampshire) Corp	<ul style="list-style-type: none"> <li>• None Listed</li> </ul>	<ul style="list-style-type: none"> <li>• No services listed</li> </ul>
25	Liberty Utilities (Canada) Corp	<ul style="list-style-type: none"> <li>• Liberty Utilities (CalPeco Electric) LLC,</li> <li>• Liberty Utilities (Pine Bluff Water) Inc.,</li> <li>• Liberty Utilities (Midstates Natural Gas) Corp,</li> <li>• Liberty Utilities (Peach State Natural Gas) Corp.,</li> <li>• Liberty Utilities (Sub) Corp.,</li> <li>• Liberty Energy Utilities (New Hampshire) Corp.,</li> <li>• Liberty Utilities (New England Natural Gas Company) Corp.,</li> <li>• Algonquin Power &amp; Utilities Corp.,</li> <li>• Algonquin Power Trust,</li> <li>• Liberty Utilities Co,</li> <li>• Liberty Utilities Energy Solutions Corp,</li> <li>• Liberty Utilities (Pipeline &amp; Transmission) Corp.,</li> <li>• Liberty Utilities (Park Water) Corp,</li> <li>• LU (Canada) LP,</li> <li>• Liberty Water Corp.,</li> <li>• Park Water Company,</li> <li>• Mountain Water Co.,</li> <li>• Davis Road LP,</li> <li>• Blue Duchess Co Inc.,</li> <li>• Blue Duchess Co S.a.r.l.,</li> <li>• Green Duchess Co Inc.,</li> <li>• Green Duchess Co S.a.r.l.,</li> <li>• Liberty Utilities Services Corp,</li> <li>• Algonquin Power Tinker Transmission,</li> <li>• The Empire District Electric Company,</li> <li>• Liberty Utilities (Woodson-Hensley Water) Corp.,</li> <li>• Liberty Utilities Missouri Water,</li> <li>• APCO Tinker Transmission,</li> </ul>	<ul style="list-style-type: none"> <li>• Information Technology,</li> <li>• Human Resources,</li> <li>• Training,</li> <li>• Facilities and Building Rent,</li> <li>• Environment, Health, Safety and Security,</li> <li>• Procurement,</li> <li>• Executive and Strategic Management,</li> <li>• Technical Services,</li> <li>• Utility Planning,</li> <li>• Risk Management,</li> <li>• Financial Reporting, Planning and Administration,</li> <li>• Treasury,</li> <li>• Internal Audit,</li> <li>• External Communications,</li> <li>• Legal Costs,</li> <li>• Compliance</li> </ul>

		<ul style="list-style-type: none"> <li>• Liberty Utilities (St. Lawrence Gas) Corp,</li> <li>• Liberty Utilities (Gas New Brunswick) LP,</li> <li>• Liberty Utilities (Gas New Brunswick) Corp.,</li> <li>• Ascedant Group Limited,Algonquin Power Services Canada,</li> <li>• Liberty Utilities (Luning Holdings) LLC,</li> <li>• Liberty Utilities (Tinker Transmission) GP Inc.</li> <li>• Green GlanNua Co Ltd,</li> <li>• Kings Point Wind,</li> <li>• North Fork Ridge Wind, LLC.</li> </ul>	
<p>26</p>	<p>Liberty Utilities Service Corp</p>	<ul style="list-style-type: none"> <li>• Liberty Utilities (Peach State Natural Gas) Corp.,</li> <li>• Liberty Utilities Energy Solutions Corp.,</li> <li>• Liberty Utilities (CalPeco Electric) LLC,</li> <li>• Liberty Utilities (Sub) Corp.,</li> <li>• Liberty Utilities (Pine Bluff Water) Inc.,</li> <li>• Liberty Utilities (New England Natural Gas Company) Corp.,</li> <li>• Liberty Utilities (Midstates Natural Gas) Corp.,</li> <li>• Liberty Utilities (Canada) Corp.,</li> <li>• Liberty Utilities Co,</li> <li>• Algonquin Power Trust,</li> <li>• Liberty Utilities (Pipeline &amp; Transmission) Corp.,</li> <li>• Liberty Energy Utilities (New Hampshire) Corp.,</li> <li>• Algonquin Windsor Lock,</li> <li>• Liberty Utilities (Park Water) Corp.,</li> <li>• Liberty Utilities (Arkansas Water) Corp.,</li> <li>• Liberty Utilities (Arkansas Water) Corp.,</li> <li>• Liberty Utilities (Woodson-Hensley) Corp.,</li> <li>• The Empire District Electric Company,</li> <li>• Liberty Power,</li> <li>• Sanger Power,</li> <li>• Liberty Utilities (Missouri Water) LLC,</li> <li>• Liberty Utilities (Tinker Transmission) LP,</li> <li>• Algonquin Power &amp; Utilities Corp,</li> <li>• Liberty Utilities (Apple Valley Ranchos Water) Corp.</li> <li>• Amherst Wind Farm,</li> <li>• Deerfield Wind Energy,</li> <li>• Great Bay Solar,</li> <li>• Minonk Wind,</li> <li>• O'Dell Wind Farm,</li> </ul>	<ul style="list-style-type: none"> <li>• Information Technology,</li> <li>• Human Resources,</li> <li>• Training,</li> <li>• Environment, Health, Safety and Security,</li> <li>• Facilities and Building Rent,</li> <li>• Procurement,</li> <li>• Executive and Strategic Management,</li> <li>• Technical Services,</li> <li>• Utility Planning,</li> <li>• Risk Management,</li> <li>• Financial Reporting, Planning and Administration,</li> <li>• Compliance,</li> <li>• Treasury,</li> <li>• Internal Audit,</li> <li>• External Communications,</li> <li>• Legal Costs</li> </ul>

		<ul style="list-style-type: none"> <li>• Senate Wind,</li> <li>• Shady Oaks Wind,</li> <li>• St. Leon Wind Energy</li> </ul>	
27	National Grid Engineering & Survey, Inc	<ul style="list-style-type: none"> <li>• Boston Gas Company,</li> <li>• Brooklyn Union Gas-KEDNY,</li> <li>• Colonial Gas Company,</li> <li>• Massachusetts Electric Co,</li> <li>• Nantucket Electric Co,</li> <li>• NE Hydro-Trans Corp,</li> <li>• NE Hydro-Trans Elec Co,</li> <li>• New England Power Company,</li> <li>• NG Development Holdings,</li> <li>• KS Gas East Corp-KEDLI,</li> <li>• NG Generation LLC,</li> <li>• NG Glenwood Energy Center,</li> <li>• NG LNG LP Regulated Entity,</li> <li>• NG Port Jeff Energy Center,</li> <li>• NG Services, Inc.,</li> <li>• National Grid USA Parent,</li> <li>• NGUSA Service Company,</li> <li>• Niagara Mohawk Power Corp,</li> <li>• Transgas Inc,</li> <li>• Narragansett Electric Co</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance and construction,</li> <li>• Electric power plant operations,</li> <li>• Management of Complex Construction Projects,</li> <li>• Resource Planning and Response and Operations Performance activities</li> </ul>
28	National Grid USA Service Company Inc	<ul style="list-style-type: none"> <li>• Boston Gas Company,</li> <li>• Brooklyn Union Gas-KEDNY,</li> <li>• Colonial Gas Company,</li> <li>• Massachusetts Electric Co,</li> <li>• Nantucket Electric Co,</li> <li>• Narragansett Electric Co,</li> <li>• NE Electric Trans Corp,</li> <li>• NE Hydro-Trans Corp,</li> <li>• NE Hydro-Trans Elec Co,</li> <li>• New England Power Company,</li> <li>• NG Development Holdings,</li> <li>• NG Engineering Srvcs, LLC,</li> <li>• KS Gas East Corp-KEDLI,</li> <li>• NG Generation LLC,</li> <li>• NG Glenwood Energy Center,</li> </ul>	<ul style="list-style-type: none"> <li>• US Human Resources, <ul style="list-style-type: none"> <li>○ Compensation, Benefits &amp; Pensions,</li> <li>○ HR SVP,</li> <li>○ Labor &amp; Employee Relations,</li> <li>○ Talent &amp; Diversity,</li> <li>○ Talent Acquisition,</li> <li>○ US HR Business Partner,</li> </ul> </li> <li>• US Finance, <ul style="list-style-type: none"> <li>○ Business Partnering,</li> <li>○ Controllership,</li> <li>○ Corporate Finance,</li> <li>○ Finance Excellence,</li> <li>○ US CFO,</li> </ul> </li> <li>• Total US IT, <ul style="list-style-type: none"> <li>○ Global IT,</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• NG LNG LP Regulated Entity,</li> <li>• NG NEHoldings 2 LLC,</li> <li>• NG Port Jeff Energy Center,</li> <li>• NG Services, Inc.,</li> <li>• National Grid USA Parent,</li> <li>• Niagara Mohawk Power Corp,</li> <li>• Transgas Inc,</li> <li>• NG Electric Services,</li> <li>• PSEG Electric Serv TSA Co,</li> <li>• NG North America Inc.,</li> <li>• NG Ventures Consolidated</li> </ul>	<ul style="list-style-type: none"> <li>○ Global Solution Development RTB,</li> <li>○ Infrastructure &amp; Operations,</li> <li>○ IS Commercial Supplier Management,</li> <li>○ IS Digital Risk &amp; Security,</li> <li>○ IS Enterprise Projects,</li> <li>○ IS Physical Security,</li> <li>○ IS Legacy Org,</li> <li>○ US Group Functions/Data Management.,</li> <li>○ US Infrastructure Program Del. RTB,</li> <li>• US Legal, <ul style="list-style-type: none"> <li>○ Regulatory Strategy,</li> <li>○ Environment,</li> <li>○ US General Counsel-SVP,</li> </ul> </li> <li>• Global Human Resources, <ul style="list-style-type: none"> <li>○ Global &amp; US LTC,</li> <li>○ Global Academy,</li> <li>○ Global HR Business Partners,</li> <li>○ Global People Analytics,</li> </ul> </li> <li>• Global Finance, <ul style="list-style-type: none"> <li>○ Claims,</li> <li>○ Investment Management,</li> <li>○ US Insurance,</li> <li>○ US Investor Relations,</li> <li>○ US Tax,</li> <li>○ US Treasury,</li> <li>○ US IS Finance,</li> </ul> </li> <li>• Global Legal, <ul style="list-style-type: none"> <li>○ Internal Compliance,</li> <li>○ Records Management and Regulatory Comply,</li> <li>○ US Risk Management,</li> </ul> </li> <li>• Legal-Real Estate, <ul style="list-style-type: none"> <li>○ Senior Counsel Corporate,</li> </ul> </li> <li>• Corporate Affairs, <ul style="list-style-type: none"> <li>○ Federal Affairs,</li> <li>○ Government Relations,</li> <li>○ Strategic Communications,</li> </ul> </li> <li>• Audit, <ul style="list-style-type: none"> <li>○ US Audit,</li> </ul> </li> <li>• Capital Delivery, <ul style="list-style-type: none"> <li>○ Capital Delivery Programs,</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>○ Capital Delivery SVP,</li> <li>○ Capital Delivery – Electric,</li> <li>○ Capital Delivery – Gas,</li> <li>○ Capital Project Development,</li> <li>○ Contracts &amp; Commercial,</li> <li>○ Project Controls &amp; Estimating,</li> <li>● Centralized Functions,             <ul style="list-style-type: none"> <li>○ Centralized Services,</li> <li>○ Fleet Management,</li> </ul> </li> <li>● Customer Operations,             <ul style="list-style-type: none"> <li>○ Chief Customer Officer,</li> <li>○ Customer Delivery,</li> <li>○ Customer Process Enablement,</li> <li>○ Customer Sales &amp; Solutions,</li> <li>○ Innovation &amp; Development,</li> <li>○ Marketing &amp; Product Growth,</li> </ul> </li> <li>● Electric Business Unit,             <ul style="list-style-type: none"> <li>○ COO Electric Business Unit,</li> <li>○ Elec Inv Strategy &amp; Resource Planning,</li> <li>○ Elec Planning &amp; Performance Management,</li> <li>○ Emergency Planning &amp; Electric Services,</li> <li>○ Maintenance &amp; Construction-NE Elec, Maint &amp; Const-NY Elec,</li> <li>○ US Electric Engineering,</li> </ul> </li> <li>● Gas Business Unit,             <ul style="list-style-type: none"> <li>○ COO Gas Business Unit,</li> <li>○ Gas Bus Planning &amp; Performance,</li> <li>○ Gas Enablement Project,</li> <li>○ Gas Field Operation,</li> <li>○ US Gas Engineering,</li> <li>○ Work &amp; Resource Management,</li> </ul> </li> <li>● Global Procurement,             <ul style="list-style-type: none"> <li>○ Global Procurement-Head of Strategy,</li> <li>○ Inventory Management &amp; Warehouse Management,</li> <li>○ US Procurement,</li> <li>○ Global SHE,</li> </ul> </li> <li>● MA JDx,             <ul style="list-style-type: none"> <li>○ Community &amp; Cust Management-MA,</li> <li>○ Jurisdictions-MA Pres,</li> <li>○ US Policy &amp; Social Impact,</li> </ul> </li> <li>● NY JDx,</li> </ul>
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			<ul style="list-style-type: none"> <li>○ Community &amp; Cust Management-NY,</li> <li>○ Jurisdictions-NY Pres,</li> <li>○ Performance &amp; Strategy-NY,</li> <li>● RI JDx,             <ul style="list-style-type: none"> <li>○ Community &amp; Cust Management-RI,</li> <li>○ Jurisdictions-RI Pres,</li> <li>○ Performance &amp; Strategy-RI,</li> </ul> </li> <li>● Safety, Health &amp; Environment,             <ul style="list-style-type: none"> <li>○ Corporate Safety,</li> <li>○ Safety, Health &amp; Environment,</li> <li>○ Field Safety,</li> <li>○ Health,</li> <li>○ Process Safety,</li> <li>○ SHE Performance &amp; Reporting,</li> <li>○ SHE-VP,</li> <li>○ US Business Assurance VP,</li> </ul> </li> <li>● Strategy &amp; Regulation,             <ul style="list-style-type: none"> <li>○ New England Pricing,</li> <li>○ New England Revenue Reqmt,</li> <li>○ New York Pricing,</li> <li>○ New York Revenue Reqmt,</li> <li>○ Reg Process Excellence,</li> <li>○ Reg Strategy &amp; Int Analytics,</li> <li>○ Strategy &amp; Regulation SVP,</li> <li>○ Bus Planning, Dev &amp; Process,</li> </ul> </li> <li>● Transmission, Gen &amp; Energy Procurement,             <ul style="list-style-type: none"> <li>○ Power Plant Operations,</li> <li>○ Pres &amp; COO-Trans, Gen &amp; EP,</li> <li>○ Systems Eng &amp; Aviation,</li> <li>○ Tx Planning &amp; Asset Management</li> </ul> </li> <li>● Transformation Office,             <ul style="list-style-type: none"> <li>○ AMI &amp; Grid Mod,</li> <li>○ Analytics &amp; Performance,</li> <li>○ BE-Internal Consultancy,</li> <li>○ BMS, Assurance, &amp; Risk,</li> <li>○ Chief Customer Officer TO,</li> <li>○ Chief Transformation Officer,</li> <li>○ Gas Business Enablement TO,</li> <li>○ US Transformation Architecture</li> </ul> </li> </ul>
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<p>29</p>	<p>NiSource Corporate Services Company</p>	<ul style="list-style-type: none"> <li>• Columbia Gas of Kentucky, Inc.,</li> <li>• Columbia Gas of Maryland, Inc.,</li> <li>• Columbia Gas of Massachusetts (Bay State Gas d/b/a Columbia Gas of Massachusetts),</li> <li>• Columbia Gas of Ohio, Inc.,</li> <li>• Columbia Gas of Pennsylvania, Inc.,</li> <li>• Columbia Gas of Virginia, Inc.,</li> <li>• Columbia Gas of Ohio Receivables Corporation,</li> <li>• Columbia Gas of Pennsylvania Receivables Corporation,</li> <li>• NiSource Development Company, Inc.,</li> <li>• NiSource Inc.,</li> <li>• NiSource Insurance Corporation, Inc.,</li> <li>• Northern Indiana Public Service Company,</li> <li>• Rosewater Wind Generation LLC,</li> <li>• Indiana Crossroads Wind Gen,</li> <li>• Rosewater Wind Farm LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting and Statistical Services,</li> <li>• Auditing Services,</li> <li>• Budget Services,</li> <li>• Business Services,</li> <li>• Corporate Services,</li> <li>• Customer Billing, Collection, and Contact Services,</li> <li>• Employee Services,</li> <li>• Engineering and Research Services,</li> <li>• Facility Services,</li> <li>• Gas Dispatching Services,</li> <li>• Information Services,</li> <li>• Information Technology Services,</li> <li>• Insurance Services,</li> <li>• Land/Surveying Services,</li> <li>• Legal Services,</li> <li>• Officers,</li> <li>• Operations Support and Planning Services,</li> <li>• Purchasing, Storage and Disposition Services,</li> <li>• Regulatory Services,</li> <li>• Tax Services,</li> <li>• Transportation Services,</li> <li>• Treasury Services</li> </ul>
<p>30</p>	<p>PHI Service Company</p>	<ul style="list-style-type: none"> <li>• Potomac Electric Company,</li> <li>• Delmarva Power &amp; Light Company,</li> <li>• Atlantic City Electric Company,</li> <li>• Exelon Business Services Company, LLC,</li> <li>• Commonwealth Edison Company,</li> <li>• Baltimore Gas and Electric Company,</li> <li>• Constellation NewEnergy, Inc.,</li> <li>• PECO Energy Company,</li> <li>• Pepco Holdings LLC,</li> <li>• Conective Property &amp; Investments, Inc.,</li> <li>• Exelon Corporation</li> </ul>	<ul style="list-style-type: none"> <li>• Executive Management,</li> <li>• Support Services:             <ul style="list-style-type: none"> <li>○ Vehicle Resource Management,</li> <li>○ Building Services,</li> <li>○ Claims Administration Services,</li> <li>○ Other Services,</li> </ul> </li> <li>• Financial Services,</li> <li>• Human Resources,</li> <li>• Legal Services,</li> <li>• Customer Services,</li> <li>• Information Technology,</li> <li>• Governmental Affairs:             <ul style="list-style-type: none"> <li>○ Customer Research and Account Management Services,</li> <li>○ Other Government Affairs Services,</li> </ul> </li> <li>• Communication Services,</li> <li>• Regulatory Services:</li> </ul>

			<ul style="list-style-type: none"> <li>○ Customer Energy,</li> <li>○ Other Regulatory Services,</li> <li>● Regulated Electric and Gas Operation Services:             <ul style="list-style-type: none"> <li>○ System Operations Services,</li> <li>○ Meter Maintenance and Testing Services,</li> <li>○ Other Delivery Services,</li> </ul> </li> <li>● Supply Services:             <ul style="list-style-type: none"> <li>○ Utility Storeroom Services,</li> <li>○ Other Supply Services</li> </ul> </li> </ul>
31	PNMR Services Company	<ul style="list-style-type: none"> <li>● PNM,</li> <li>● PNMR Holding Company,</li> <li>● TNMP,</li> <li>● PNMR D,</li> <li>● NM PPA</li> </ul>	<ul style="list-style-type: none"> <li>● Financial Systems,</li> <li>● Accounts Payable,</li> <li>● Asset Management,</li> <li>● Direct-PNMR Utility,</li> <li>● Co 6 Utility General,</li> <li>● Direct-PNM Utility,</li> <li>● IT Infrastructure,</li> <li>● Building-Lewisville,</li> <li>● Buildings-Dallas-Las Colinas,</li> <li>● Downtown Albuquerque Buildings,</li> <li>● Aztec Building,</li> <li>● Maximo,</li> <li>● Benefits,</li> <li>● Ethics and Governance,</li> <li>● Payroll,</li> <li>● People Services,</li> <li>● Communications</li> </ul>
32	PPL EU Services Corporation	<ul style="list-style-type: none"> <li>● PPL Services Corporation,</li> <li>● PPL Strategic Development, LLC,</li> <li>● PPL Electric Utilities Corporation,</li> <li>● PPL Global, LLC,</li> <li>● LG&amp;E and KU Services Company,</li> <li>● PPL Distributed Energy Resources, LLC,</li> <li>● PPL Safari Holdings, LLC,</li> <li>● PPL Rhode Island Holdings, LLC</li> </ul>	<ul style="list-style-type: none"> <li>● Communications:             <ul style="list-style-type: none"> <li>○ Energy Efficiency,</li> <li>○ External Communications,</li> <li>○ Internal Communications,</li> <li>○ Communications Indirect</li> </ul> </li> <li>● Facilities:             <ul style="list-style-type: none"> <li>○ Building Operations and Maintenance,</li> <li>○ Customer Requests,</li> <li>○ Rent and Lease Costs,</li> <li>○ Facilities Indirect</li> </ul> </li> <li>● Finance:             <ul style="list-style-type: none"> <li>○ Accounting and Reporting,</li> <li>○ Energy Acquisition,</li> </ul> </li> </ul>

			<ul style="list-style-type: none"> <li>○ Ethics and Compliance,</li> <li>○ Miscellaneous Billing,</li> <li>○ Planning and Analysis,</li> <li>○ Property Accounting,</li> <li>○ Property Accounting / Business Line Support,</li> <li>○ Regulatory Operations,</li> <li>○ State Government Relations</li> <li>○ Finance Indirect</li> <li>● Human Resources: <ul style="list-style-type: none"> <li>○ Benefits,</li> <li>○ Business Partners,</li> <li>○ Compensation,</li> <li>○ Health Services,</li> <li>○ Human Resource Information System,</li> <li>○ Labor Relations,</li> <li>○ Payroll Services,</li> <li>○ Talent Management,</li> <li>○ Human Resources Indirect</li> </ul> </li> <li>● Information Technology: <ul style="list-style-type: none"> <li>○ Cyber Security and Information,</li> <li>○ Operations,</li> <li>○ Transformation,</li> <li>○ Planning,</li> <li>○ Information Technology Indirect</li> </ul> </li> <li>● Supply Chain: <ul style="list-style-type: none"> <li>○ Contract Management,</li> <li>○ Materials Sourcing,</li> <li>○ Supply Chain Administration,</li> <li>○ Warehouse Support</li> <li>○ Supply Chain Indirect</li> </ul> </li> <li>● Technical Development &amp; Improvement: <ul style="list-style-type: none"> <li>○ Emergency Preparedness,</li> <li>○ Training,</li> <li>○ Technical Development &amp; Improvement Indirect</li> </ul> </li> </ul>
33	PPL Services Corporation	<ul style="list-style-type: none"> <li>● PPL Corporation,</li> <li>● PPL Subsidiary Holdings, LLC,</li> <li>● PPL Energy Holdings, LLC,</li> <li>● PPL Capital Funding, Inc.,</li> <li>● PPL Strategic Development, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>● Corporate Audit Services – Direct: <ul style="list-style-type: none"> <li>○ Auditing,</li> <li>○ Auditing - SOX Testing,</li> <li>○ SOX Compliance,</li> <li>○ Corporate Compliance Officer,</li> <li>○ Rhode Island Holdings</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• PPL Power Insurance LTD,</li> <li>• PPL EU Services Corporation,</li> <li>• CEP Reserves, Inc.,</li> <li>• CEP Lending, Inc.,</li> <li>• PPL Electric Utilities Corporation,</li> <li>• PPL Translink, Inc.,</li> <li>• PPL UK Holdings, LLC,</li> <li>• PPL Global, LLC,</li> <li>• PMDC International Holdings, Inc.,</li> <li>• PPL Barbados SRL,</li> <li>• PPL Atlantic Holdings, LLC,</li> <li>• PPL WPD Limited,</li> <li>• LG&amp;E and KU Services Company,</li> <li>• PPL Rhode Island Holdings, LLC,</li> <li>• PPL Distributed Energy Resources, LLC,</li> <li>• PPL Safari Holdings, LLC,</li> <li>• PPL Safari Energy, LLC,</li> <li>• PPL Technology Ventures, LLC,</li> <li>• PPL Canada Holdings Inc.,</li> <li>• PPL Energy Resources, LLC,</li> <li>• PPL Renewables, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate Audit Services – Indirect</li> <li>• Corporate Operations and Integration – Direct:             <ul style="list-style-type: none"> <li>○ Corporate Compliance Officer,</li> <li>○ Executive VP &amp; COO,</li> <li>○ Corp Ops Ky Support,</li> <li>○ Data Analytics-AM Support,</li> <li>○ Corp Performance Storm Support,</li> <li>○ Corp Performance Cust Svcs Support,</li> <li>○ Electric Utilities,</li> <li>○ Board Services,</li> <li>○ Strategic Development Support,</li> <li>○ Corporate Integration,</li> <li>○ Rhode Island Holdings</li> </ul> </li> <li>• Corporate Operations and Integration – Indirect</li> <li>• Corporate Security – Direct:             <ul style="list-style-type: none"> <li>○ Board Services,</li> <li>○ Corp Security Support to Business Lines,</li> <li>○ Physical Security,</li> <li>○ Protection Services,</li> <li>○ Executive Services,</li> <li>○ Rhode Island Holdings</li> </ul> </li> <li>• Corporate Security – Indirect</li> <li>• Office of President – Direct:             <ul style="list-style-type: none"> <li>○ Office of President,</li> <li>○ Office of President - Net Jet,</li> <li>○ Rhode Island Holdings,</li> <li>○ Strategic Development Support</li> </ul> </li> <li>• Office of President – Indirect</li> <li>• Corporate Systems – Direct:             <ul style="list-style-type: none"> <li>○ UIP Systems Support,</li> <li>○ Wall Street System Support,</li> <li>○ Wausau System Support,</li> <li>○ HFM System Support,</li> <li>○ Strategic Development Support,</li> <li>○ CaseWare Electronic Workpaper System Support,</li> <li>○ Business Line Support,</li> <li>○ Controller App System Support,</li> <li>○ Treasury App System Support,</li> <li>○ Quantum System Support,</li> <li>○ TRAX System Support,</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>○ Rhode Island Holdings</li> <li>● Corporate Systems – Indirect</li> <li>● Enterprise Security – Direct:             <ul style="list-style-type: none"> <li>○ Cyber Security Risk Management,</li> <li>○ Strategic Development Support,</li> <li>○ Rhode Island Holdings</li> </ul> </li> <li>● Enterprise Security – Indirect</li> <li>● Financial - Direct:             <ul style="list-style-type: none"> <li>○ Office of President,</li> <li>○ Training,</li> <li>○ Fin Support Kentucky,</li> <li>○ PA Transmission,</li> <li>○ Board Services,</li> <li>○ International Accounting Services,</li> <li>○ International Tax Compliance &amp; Planning,</li> <li>○ Tax Compliance &amp; Reporting-EU,</li> <li>○ Financial Reporting,</li> <li>○ Internal Reporting,</li> <li>○ Financial Consulting Services,</li> <li>○ Fin Support for Delaware Co's,</li> <li>○ Distributed Energy Resources Support,</li> <li>○ PPL Renewables Support,</li> <li>○ PPL Canada Holdings,</li> <li>○ PPL Technology Ventures Support,</li> <li>○ Investor Relations,</li> <li>○ Investor Service Fees,</li> <li>○ Rating Agency,</li> <li>○ Billing,</li> <li>○ Remittance Processing,</li> <li>○ Cash Receipt Exception Posting,</li> <li>○ Credit Services,</li> <li>○ Vendor Servicing (Corporate Disbursements),</li> <li>○ Cash Processing Scanning Services,</li> <li>○ Pension Domestic Only,</li> <li>○ Pensions Pennsylvania Only,</li> <li>○ Stock Based Compensation,</li> <li>○ Compensation &amp; Benefits,</li> <li>○ Insurance Services-General,</li> <li>○ Strategic Development Support,</li> <li>○ Rhode Island Holdings</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>• Financial – Indirect</li> <li>• Human Resources - Direct:             <ul style="list-style-type: none"> <li>○ Employee Communications,</li> <li>○ Executive Services,</li> <li>○ Board Services,</li> <li>○ HR Support to Business Lines,</li> <li>○ Employee Engagement,</li> <li>○ Physical Security,</li> <li>○ Protective Services,</li> <li>○ Talent Management and Diversity &amp; Inclusion Services,</li> <li>○ Corp Compensation and Benefit Services,</li> <li>○ Utility Talent Acquisition,</li> <li>○ Training &amp; Development,</li> <li>○ Organization Development &amp; Effectiveness,</li> <li>○ University Relations,</li> <li>○ Utility HR Business Partners,</li> <li>○ Utility DEI,</li> <li>○ Health Services,</li> <li>○ Labor Relations,</li> <li>○ HRIS,</li> <li>○ Payroll,</li> <li>○ Employee Compensation,</li> <li>○ Rhode Island Holdings</li> </ul> </li> <li>• Human Resources – Indirect</li> <li>• Information Services – Direct:             <ul style="list-style-type: none"> <li>○ IT Vehicle Costs,</li> <li>○ IT Tax,</li> <li>○ Asset Management Product,</li> <li>○ Corporate Systems Department,</li> <li>○ Customer Experience Product,</li> <li>○ Cybersecurity Department,</li> <li>○ Cybersecurity Product,</li> <li>○ Data and Content Department,</li> <li>○ Data &amp; Content Product,</li> <li>○ Design Department,</li> <li>○ Employee Experience Product,</li> <li>○ Eng Product – Architecture,</li> <li>○ Eng and Geospatial Product,</li> <li>○ Engineering Department,</li> <li>○ Enterprise Service Mgt Product,</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>○ Financial Systems Product,</li> <li>○ Gas Systems Product,</li> <li>○ Inf Product – Modern Workspace,</li> <li>○ Inf Product – Operational Syst,</li> <li>○ IT Infrastructure Department,</li> <li>○ Inf Product – Infrastructure,</li> <li>○ People Systems Product,</li> <li>○ Prod and Port Mgmt Department,</li> <li>○ Smart Delivery Product,</li> <li>○ Work Optimization Product,</li> <li>○ EU Customer Service Support,</li> <li>○ EU Distribution Support,</li> <li>○ EU Transmission Support,</li> <li>○ Strategic Development Support,</li> <li>○ Rhode Island Holdings Support</li> <li>● Office of General Counsel - Direct:             <ul style="list-style-type: none"> <li>○ Legal Services,</li> <li>○ Corporate Compliance,</li> <li>○ Annual Meeting/Proxy,</li> <li>○ Board Services,</li> <li>○ Cyber Security Risk Management</li> </ul> </li> <li>● Office of General Counsel – Indirect</li> <li>● Public Affairs – Direct:             <ul style="list-style-type: none"> <li>○ Legal Services,</li> <li>○ Government Affairs &amp; Communications,</li> <li>○ Corporate Compliance,</li> <li>○ Annual Meeting/Proxy,</li> <li>○ Board Services</li> </ul> </li> <li>● Public Affairs – Indirect</li> <li>● PPL Services – Indirect</li> <li>● Supply Chain - Direct:             <ul style="list-style-type: none"> <li>○ Supply Chain- Dist Sppt,</li> <li>○ Supply Chain- Transm Sppt,</li> <li>○ Supply Chain Common Clearing,</li> <li>○ Supply Chain Dist-Clearing,</li> <li>○ Supply Chain Transm-Clearing,</li> <li>○ Supply Chain Logist/Materl Src,</li> <li>○ Supply Chain – KY Support,</li> <li>○ Supply Chain- Commercial Ops,</li> <li>○ Supply Chain T&amp;D Sourcing,</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>○ Storage of Goods,</li> <li>○ Strategic Development Support,</li> <li>○ Rhode Island Holdings Support</li> <li>● Supply Chain – Indirect</li> <li>● Business Services Corp – Direct: <ul style="list-style-type: none"> <li>○ Environmental,</li> <li>○ Op Content,</li> <li>○ Experience Assessment,</li> <li>○ Training,</li> <li>○ Emergency Preparedness,</li> <li>○ Transportation Management,</li> <li>○ Business Services Management,</li> <li>○ Material Management,</li> <li>○ Logistics Support;</li> </ul> </li> <li>● Business Services Corp – Indirect</li> <li>● Facilities Corp – Direct: <ul style="list-style-type: none"> <li>○ Building Operations,</li> <li>○ Real Estate,</li> <li>○ Project Management,</li> <li>○ Facilities Management</li> </ul> </li> <li>● Facilities – Indirect</li> <li>● Finance &amp; Reg Affairs Corp – Direct: <ul style="list-style-type: none"> <li>○ Accounting and Reporting,</li> <li>○ Energy Procurement,</li> <li>○ Regulatory Operations,</li> <li>○ Planning and Analysis,</li> <li>○ Miscellaneous Billing,</li> <li>○ Property Accounting</li> </ul> </li> <li>● Finance &amp; Reg Affairs Corp – Indirect</li> <li>● Utility Communication Corp – Direct: <ul style="list-style-type: none"> <li>○ Internal Communications,</li> <li>○ External Communications,</li> <li>○ Market Research,</li> <li>○ Customer Communications,</li> <li>○ Energy Efficiency</li> </ul> </li> <li>● Utility Communication Corp – Indirect</li> </ul>
34	Sempra LNG, LLC	<ul style="list-style-type: none"> <li>● Cameron Interstate Pipeline, LLC,</li> <li>● Cameron LNG, LLC,</li> <li>● Hackberry Carbon Sequestration, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>● Executive,</li> <li>● Human Resources,</li> <li>● Information Technology &amp; Supply Management,</li> </ul>

		<ul style="list-style-type: none"> <li>• IEnova Marketing S. de R.L. de C.V.,</li> <li>• Infraestructura Energetica Nova S.A.P.I. de C.V.,</li> <li>• LA Storage, LLC,</li> <li>• LNG Occidente Servicios Especializados, S.A.P.I. de C.V.,</li> <li>• PALNG Common Facilities Company, LLC,</li> <li>• Port Arthur LNG Phase II, LLC,</li> <li>• Port Arthur LNG, LLC,</li> <li>• Port Arthur Pipeline, LLC,</li> <li>• Sempra Energy,</li> <li>• Sempra Energy International, LLC,</li> <li>• Sempra Energy LNG Marketing,</li> <li>• Sempra Gas &amp; Power Marketing, LLC,</li> <li>• Sempra Infrastructure Partners, LP,</li> <li>• Sempra International, LLC,</li> <li>• Sempra LNG ECA Liquefaction, LLC,</li> <li>• Sempra LNG Holdings II, LLC,</li> <li>• Sempra LNG International, LLC,</li> <li>• Sempra Technology Ventures, LLC,</li> <li>• Vista Pacifico LNG Holdings, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Operations,</li> <li>• Legal &amp; External Affairs,</li> <li>• Asset Management,</li> <li>• Engineering &amp; Construction,</li> <li>• Commercial &amp; Project Development,</li> <li>• Accounting and Finance</li> </ul>
35	Sempra Services Corporation	<ul style="list-style-type: none"> <li>• Sempra International, LLC,</li> <li>• Sempra Gas &amp; Power Marketing, LLC,</li> <li>• Sempra Infrastructure Services Company, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Operations Center,</li> <li>• Natural Gas Optimization and Power Optimization,</li> <li>• Clean Power Development,</li> <li>• All other service departments</li> </ul>
36	Southern Company Services, Inc	<ul style="list-style-type: none"> <li>• The Southern Company,</li> <li>• Alabama Power Company,</li> <li>• Georgia Power Company,</li> <li>• Mississippi Power Company,</li> <li>• Southern Electric Generating Company,</li> <li>• Southern Nuclear Operating Company,</li> <li>• Southern Company Holdings, Inc.,</li> <li>• Southern Communications Services, Inc.,</li> <li>• Southern Power Company,</li> <li>• Southern Company Gas,</li> <li>• PowerSecure International</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting, Finance, and Treasury,</li> <li>• Auditing,</li> <li>• Executive and Corporate,</li> <li>• External Affairs,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Legal and General Counsel,</li> <li>• Marketing Services,</li> <li>• Supply Chain Management,</li> <li>• System Air,</li> <li>• Engineering,</li> <li>• Transmission,</li> <li>• Environmental and Research,</li> <li>• Executive and Corporate,</li> <li>• Other - SWE,</li> </ul>

			<ul style="list-style-type: none"> <li>• System Planning,</li> <li>• SCG Exec and Corporate Support,</li> <li>• Chief Production Officer</li> </ul>
37	Southern Nuclear Operating Company, Inc	<ul style="list-style-type: none"> <li>• Alabama Power Company,</li> <li>• Georgia Power Company,</li> <li>• Southern Nuclear Services, LLC (SNS),</li> <li>• Southern Nuclear Development, LLC (SND)</li> </ul>	<ul style="list-style-type: none"> <li>• Alabama Power and Georgia Power:               <ul style="list-style-type: none"> <li>○ Operating and maintenance services,</li> <li>○ New investment services, and</li> <li>○ Fuel services at cost with respect to nuclear generating plants</li> </ul> </li> <li>• SNS and SND, at cost:               <ul style="list-style-type: none"> <li>○ Assistance,</li> <li>○ Materials,</li> <li>○ Supplies,</li> <li>○ Licenses,</li> <li>○ Offices,</li> <li>○ Certain real property rights,</li> <li>○ Telecommunications services,</li> <li>○ Public information services,</li> <li>○ Environmental services,</li> <li>○ Accounting services,</li> <li>○ Procurement services,</li> <li>○ Maintenance personnel,</li> <li>○ Security personnel</li> </ul> </li> </ul>
38	Unitil Service Corporation	<ul style="list-style-type: none"> <li>• Unitil Energy Systems, Inc.,</li> <li>• Fitchburg Gas and Electric Light Co.,</li> <li>• Unitil Realty Corp.,</li> <li>• Unitil Corporation,</li> <li>• Northern Utilities, Inc.,</li> <li>• Granite State Gas Transmission, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• Regulatory Services,</li> <li>• Distributed Energy Resources,</li> <li>• Human Resources,</li> <li>• Business Development,</li> <li>• Finance,</li> <li>• Information Systems,</li> <li>• Accounting,</li> <li>• Engineering,</li> <li>• Energy Contracts,</li> <li>• Financial Services,</li> <li>• Customer Service,</li> <li>• Operations Shared Services,</li> <li>• Distribution Engineering,</li> <li>• Communications,</li> <li>• Gas Engineering,</li> <li>• Electric Operations,</li> <li>• Gas Operations</li> </ul>

<p>39</p>	<p>WEC Business Services LLC</p>	<ul style="list-style-type: none"> <li>• ATC Holding LLC,</li> <li>• Bluewater Gas Storage, LLC,</li> <li>• Dairyland Power Cooperative,</li> <li>• Elm Road Generating Station Supercritical, LLC,</li> <li>• Integrys Holding, Inc.,</li> <li>• Madison Gas and Electric Company,</li> <li>• Michigan Gas Utilities Corporation,</li> <li>• Minnesota Energy Resources Corporation,</li> <li>• North Shore Gas Company,</li> <li>• Port Washington Generating Station, LLC,</li> <li>• The Peoples Gas Light and Coke Company,</li> <li>• Upper Michigan Energy Resources Corporation,</li> <li>• WEC Energy Group, Inc.,</li> <li>• WEC Infrastructure LLC,</li> <li>• W.E. Power, LLC,</li> <li>• Wisconsin Electric Power Company,</li> <li>• Wisconsin Energy Capital Corporation,</li> <li>• Wisconsin Gas LLC,</li> <li>• Wisconsin Power and Light Company,</li> <li>• Wisconsin Public Service Corporation,</li> <li>• Wisconsin River Power Company,</li> <li>• Wispark LLC,</li> <li>• WPPI Energy,</li> <li>• WPS Power Development, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative,</li> <li>• Communications,</li> <li>• Customer,</li> <li>• Environmental,</li> <li>• Executive Management,</li> <li>• External Affairs,</li> <li>• Finance,</li> <li>• Human Resources,</li> <li>• Information Technology,</li> <li>• Legal and Governance,</li> <li>• Supply Chain,</li> <li>• Operational Support and Development,</li> <li>• Wholesale Energy and Fuels</li> </ul>
<p>40</p>	<p>Xcel Energy Services Inc</p>	<ul style="list-style-type: none"> <li>• PSCo,</li> <li>• NSP-Minnesota,</li> <li>• SPS,</li> <li>• NSP-Wisconsin,</li> <li>• Xcel Energy, Inc.,</li> <li>• Xcel Energy Joint Ventures,</li> <li>• Nicollet Projects I, LLC,</li> <li>• Xcel Energy Transmission Development Company, LLC,</li> <li>• Nicollet Land Services, LLC,</li> <li>• Nicollet Holdings Company,</li> <li>• Eloigne Company,</li> <li>• Xcel Energy WYCO, Inc.,</li> <li>• Xcel Energy Southwest Transmission Company, LLC,</li> <li>• Capital Services, LLC,</li> </ul>	<ul style="list-style-type: none"> <li>• Executive Management Services,</li> <li>• Investor Relations,</li> <li>• Internal Audit &amp; Risk,</li> <li>• Legal,</li> <li>• Claims Services,</li> <li>• Corporate Communications,</li> <li>• Employee Communications,</li> <li>• Corporate Strategy &amp; Business Development,</li> <li>• Government Affairs,</li> <li>• Facilities &amp; Real Estate,</li> <li>• Facilities Administrative Services,</li> <li>• Supply Chain,</li> <li>• Supply Chain Special Programs,</li> <li>• Human Resources,</li> </ul>

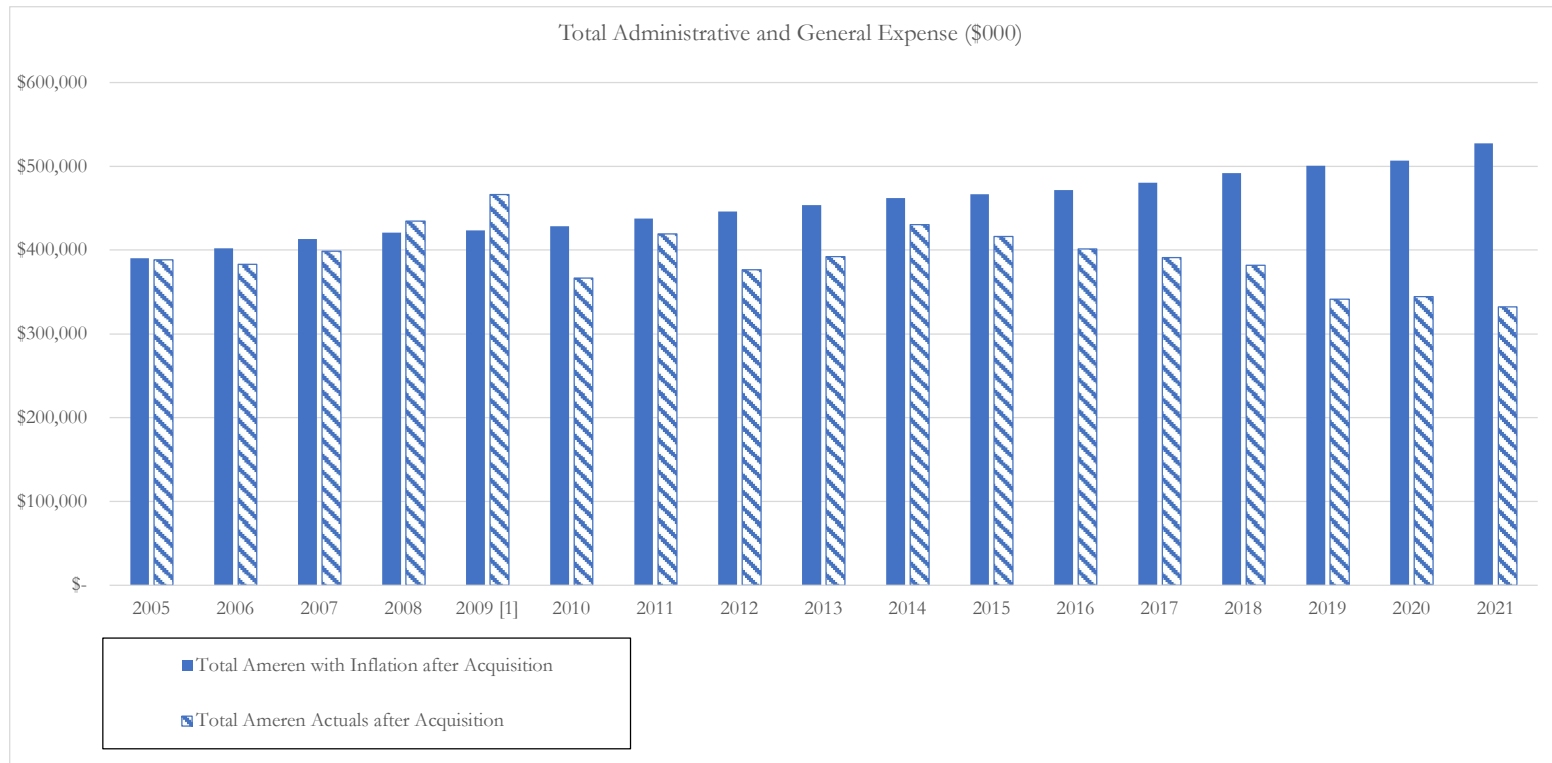
	<ul style="list-style-type: none"> <li>• Xcel Energy Wholesale Group, Inc.,</li> <li>• Chippewa and Flambeau Improvement Company,</li> <li>• Energy Impact Fund Investments, Inc.,</li> <li>• 1480 Welton, Inc.,</li> <li>• WestGas Interstate, Inc.,</li> <li>• United Power &amp; Land Company,</li> <li>• P.S.R. Investments, Inc.,</li> <li>• e-prime, Inc.,</li> <li>• Xcel Energy Ventures, Inc.,</li> <li>• Xcel Energy Transmission Holding Company, LLC,</li> <li>• Xcel Energy Retail Holdings Inc.,</li> <li>• Clearwater Investments, Inc.,</li> <li>• Xcel Energy Markets Holdings, Inc.,</li> <li>• Xcel Energy Investments,</li> <li>• Xcel Energy Performance Contracting, Inc.,</li> <li>• Xcel Energy Communications Group, Inc.,</li> <li>• Xcel Energy International, Inc.,</li> <li>• Xcel Energy Ventures Holdings, Inc.,</li> <li>• Xcel Energy West Transmission Company, LLC,</li> <li>• Nicollet Project Holdings,</li> <li>• Quixx Corporation,</li> <li>• Reddy Kilowatt Corporation,</li> <li>• Larimer Land Services, LLC,</li> <li>• Seren Innovations, Inc.,</li> <li>• NSP Lands, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• Finance &amp; Treasury,</li> <li>• Accounting, Financial Reporting &amp; Taxes,</li> <li>• Payment &amp; Reporting,</li> <li>• Receipts Processing,</li> <li>• Payroll,</li> <li>• Rates &amp; Regulation,</li> <li>• Energy Supply Engineering and Environmental,</li> <li>• Energy Supply Business Resources,</li> <li>• Energy Markets Regulated Trading &amp; Marketing,</li> <li>• Energy Markets - Fuel Procurement,</li> <li>• Energy Delivery Marketing,</li> <li>• Energy Delivery Construction, Operations &amp; Maintenance (COM),</li> <li>• Energy Delivery Engineering/Design,</li> <li>• Marketing &amp; Sales,</li> <li>• Customer Service,</li> <li>• Business Systems,</li> <li>• Aviation Services,</li> <li>• Fleet</li> </ul>
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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>

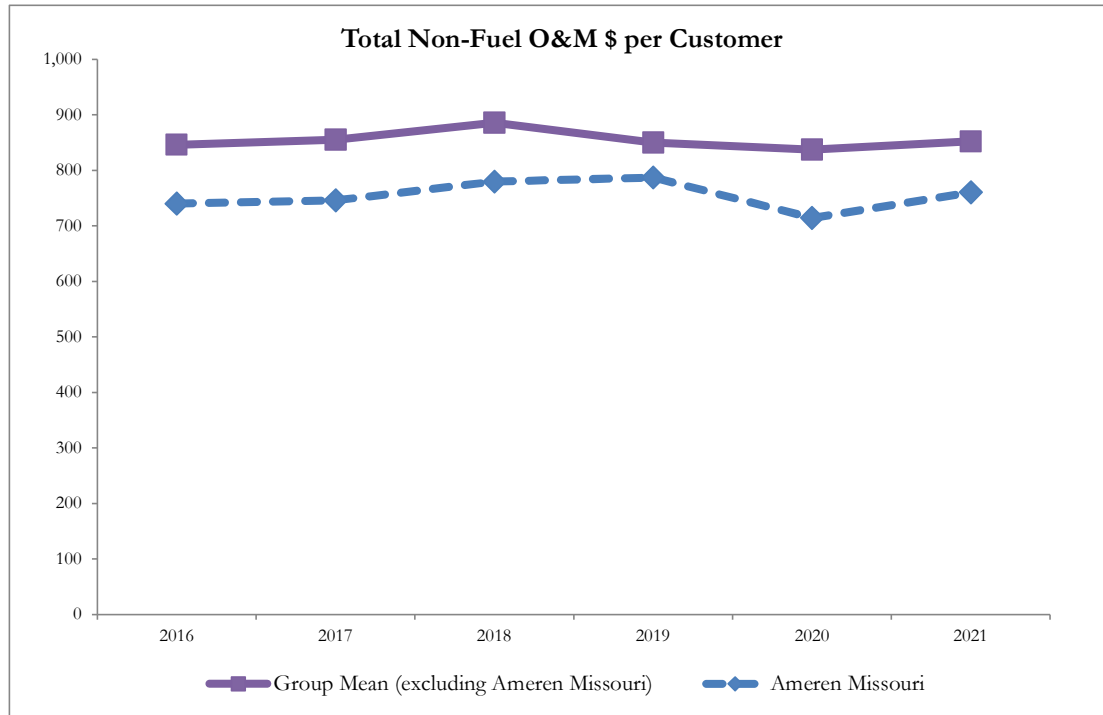
<b>Actuals</b>																	
	2005	2006	2007	2008	2009 [1]	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Union Electric	243,224	245,282	265,020	272,687	250,628	240,384	275,201	236,903	251,904	278,701	264,623	251,783	234,050	235,012	214,437	204,068	192,583
CIPS (merger completed 12/31/1997)	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.

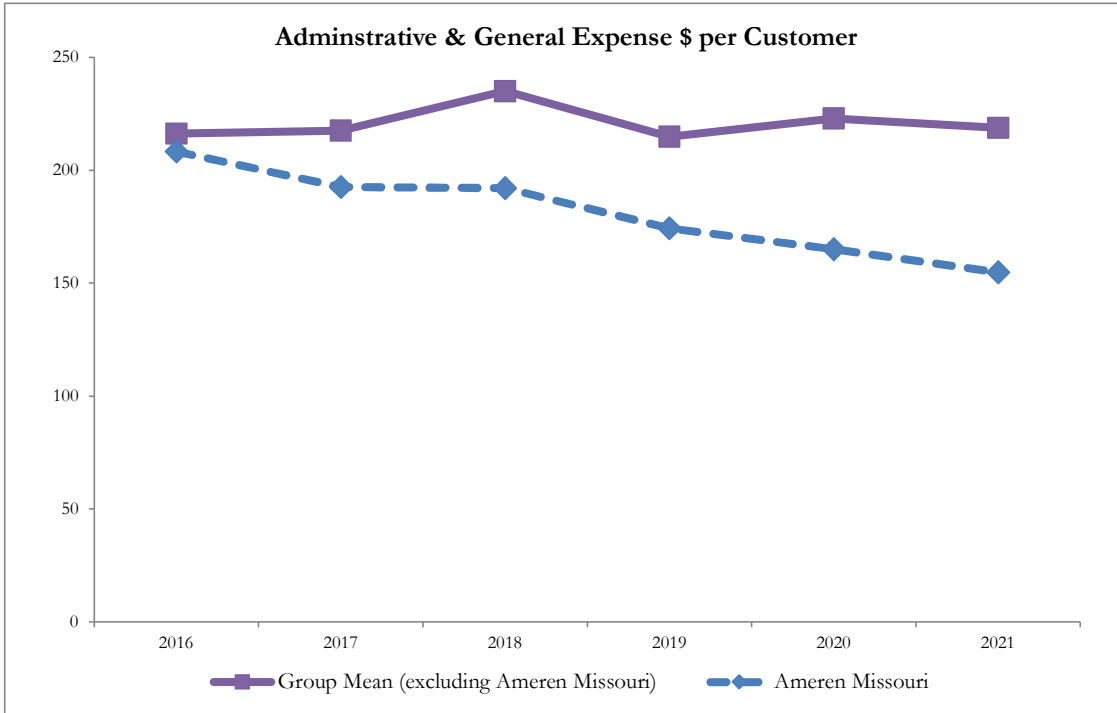
**National Electric Utilities With Regulated Generation, >50k Customers**



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

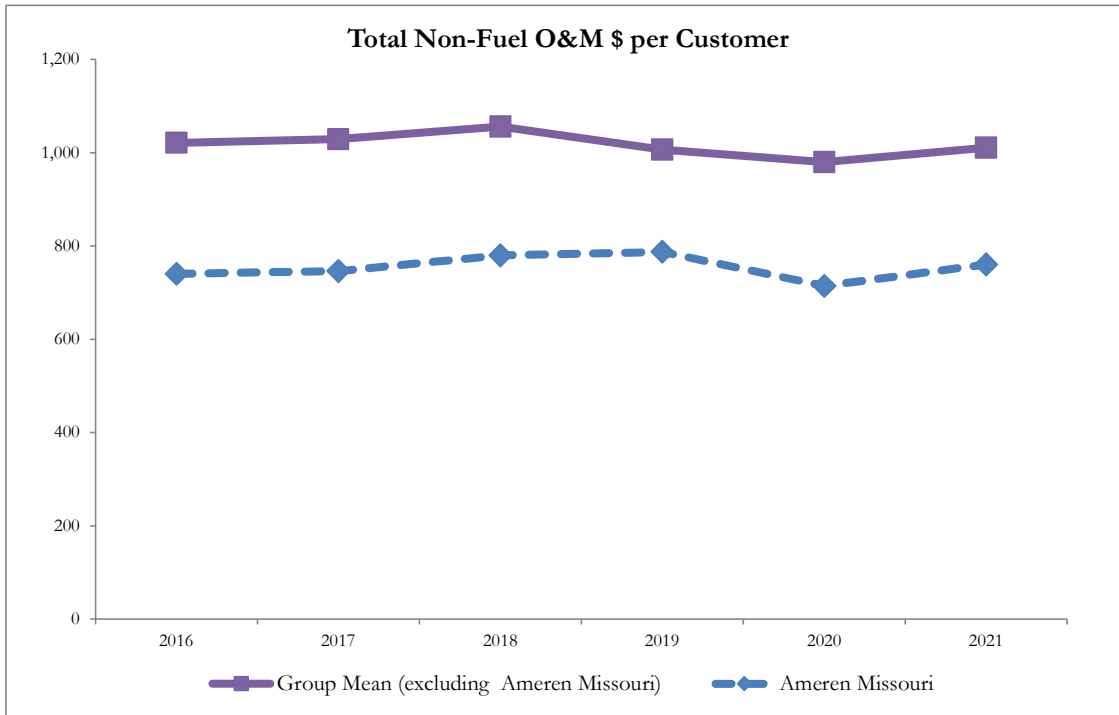


**National Electric Utilities With Regulated Generation, >50k Customers**



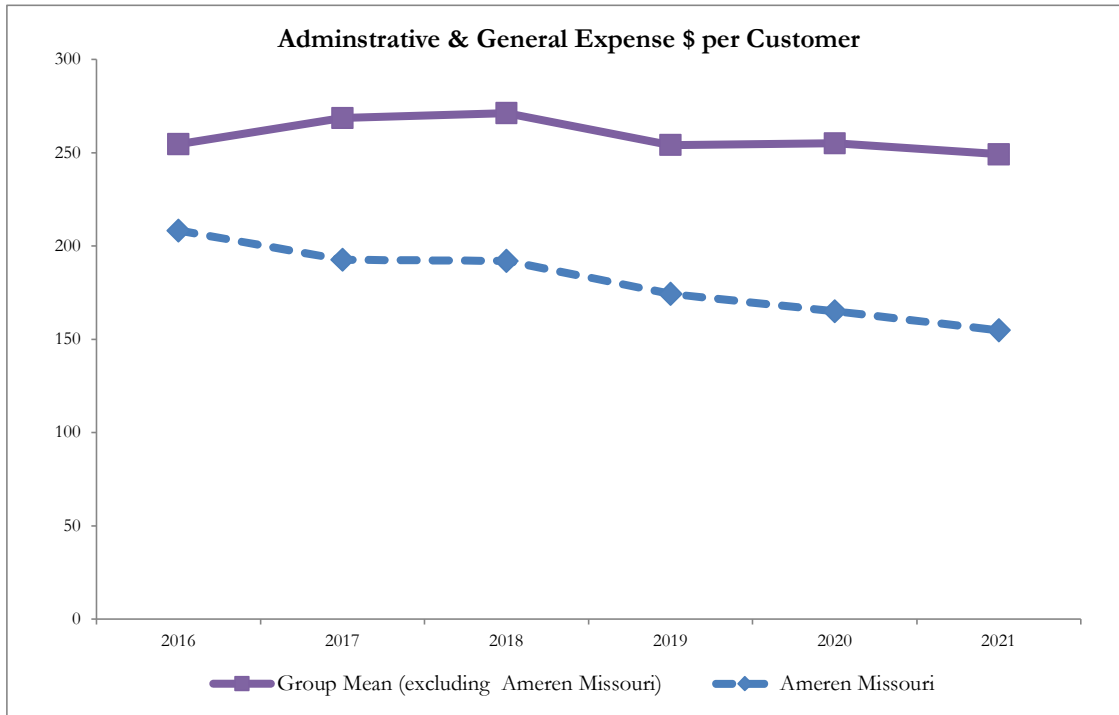
Adminstrative & General Expense \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Group Mean (excluding Ameren Missouri)	216	218	235	215	223	219
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With 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**



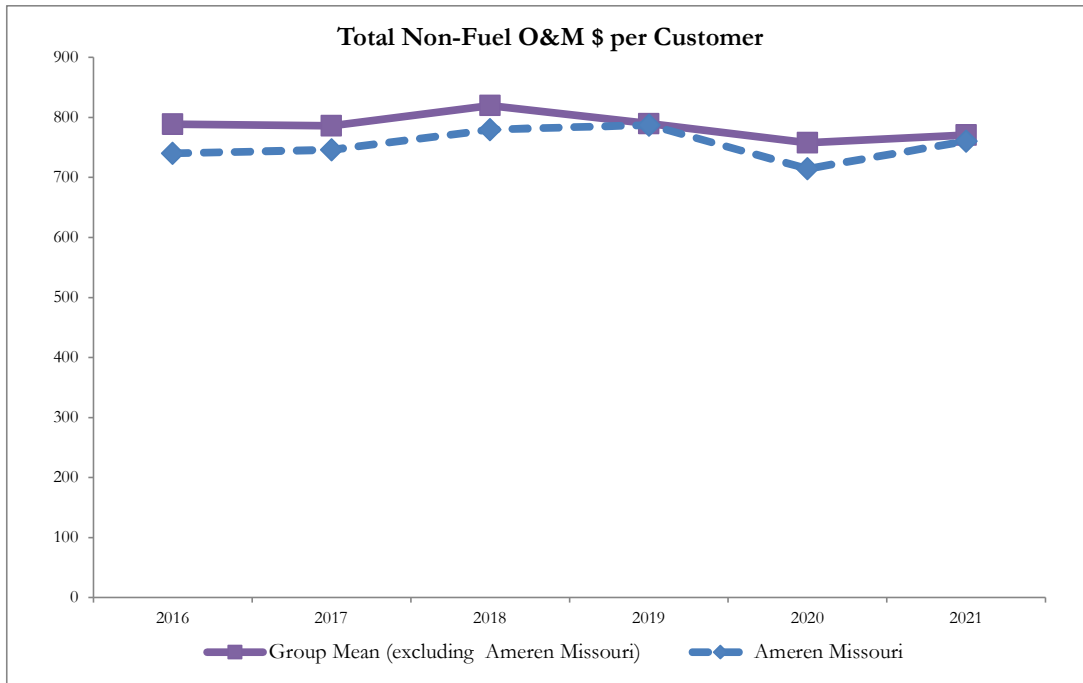
Total Non-Fuel O&M \$ per Customer						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Group Mean (excluding Ameren Missouri)	1,021	1,029	1,056	1,006	980	1,010
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Midwest Electric Utilities With Regulated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



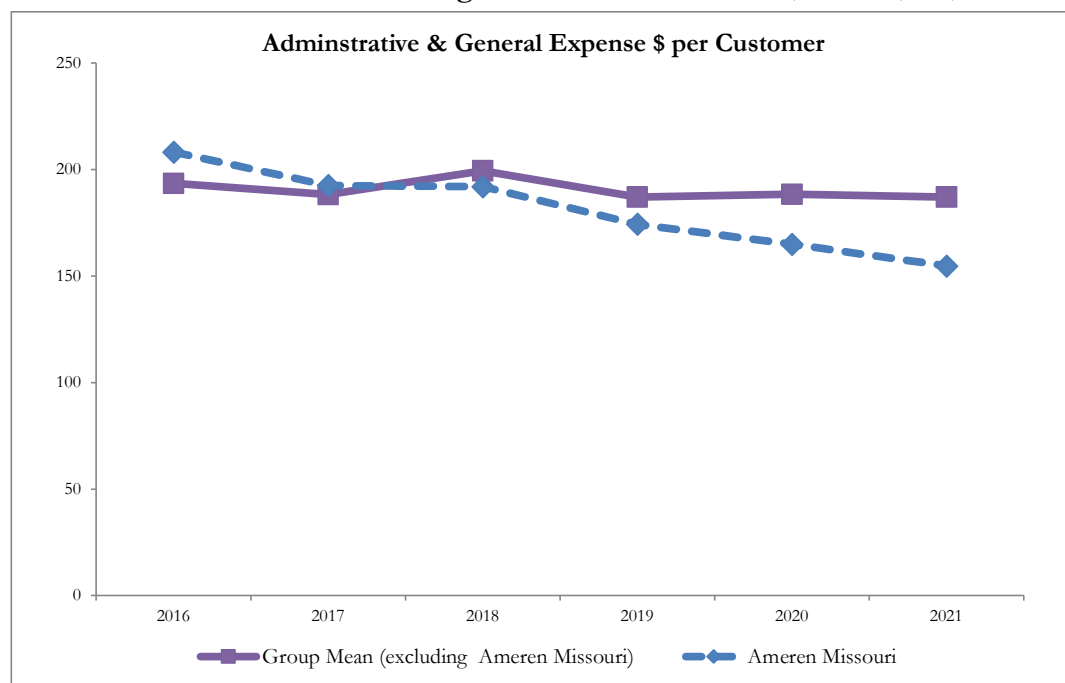
<b>Adminstrative &amp; General Expense \$ per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Group Mean (excluding Ameren Missouri)	255	269	271	254	255	249
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Midwest Electric Utilities 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**



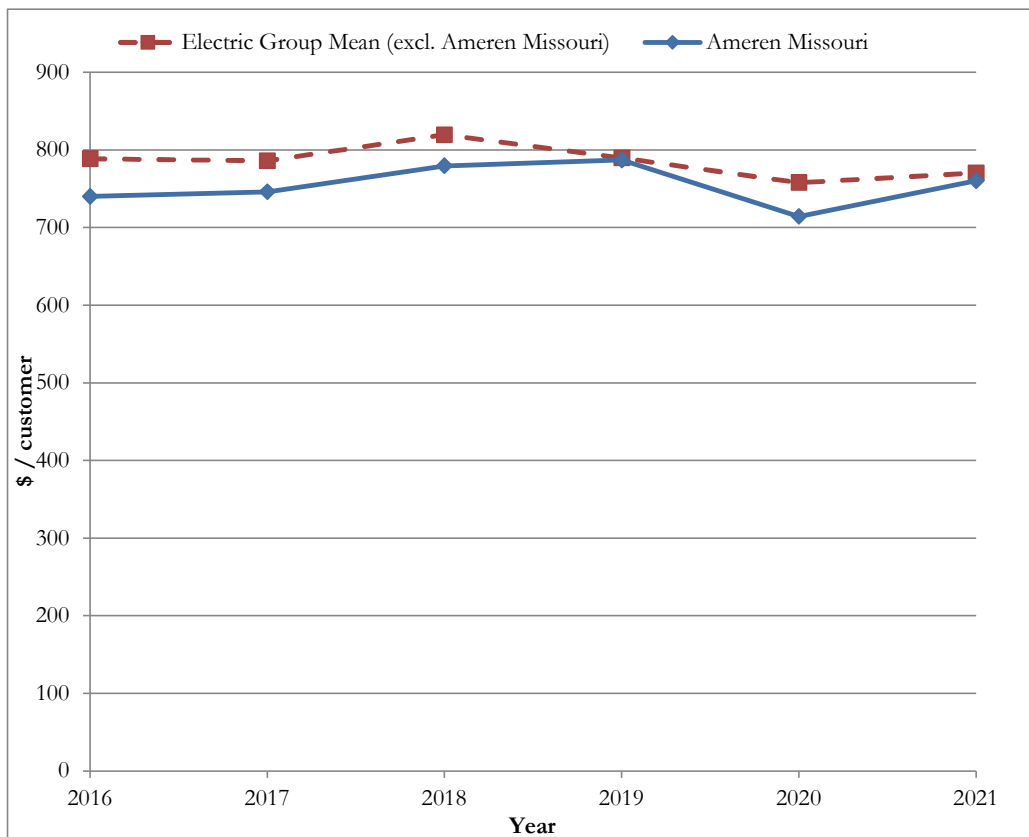
<b>Total Non-Fuel O&amp;M \$ per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Group Mean (excluding Ameren Missouri)	789	786	820	790	758	770
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
National Electric Utilities With Regulated 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

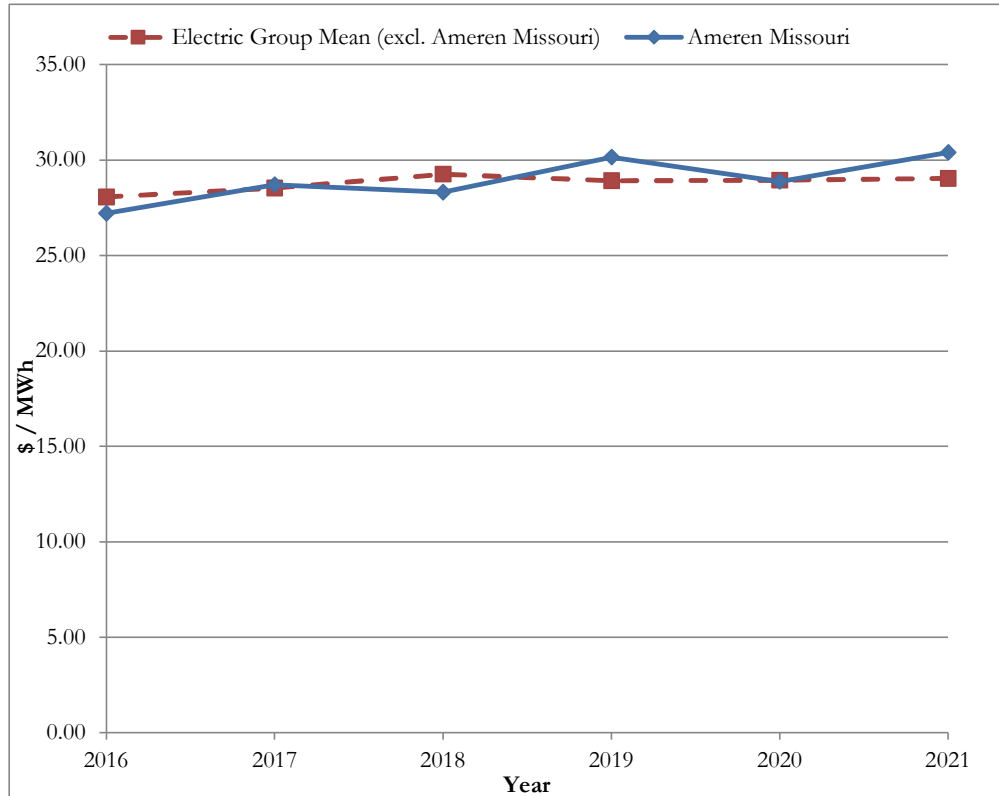


<b>Total Non-Fuel O&amp;M per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	740	746	779	787	714	760
Electric Group Mean (excl. Ameren Missouri)	789	786	820	790	758	770
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri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

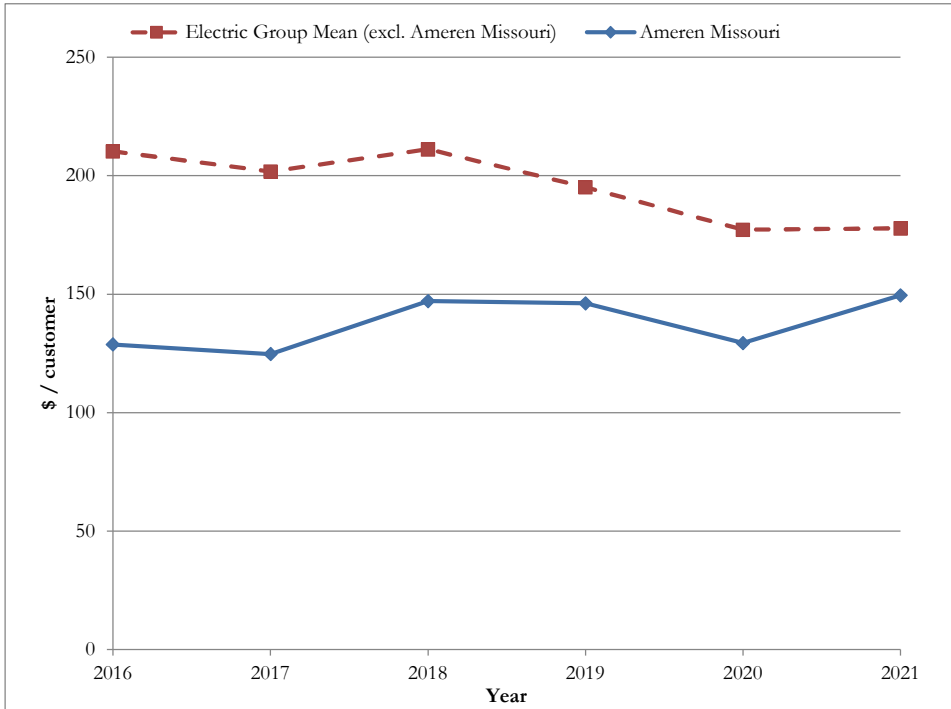


<b>Total Non-Fuel O&amp;M per MWh Sold</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	27.2	28.7	28.3	30.1	28.9	30.4
Electric Group Mean (excl. Ameren Missouri)	28.1	28.5	29.3	28.9	28.9	29.0
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:					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



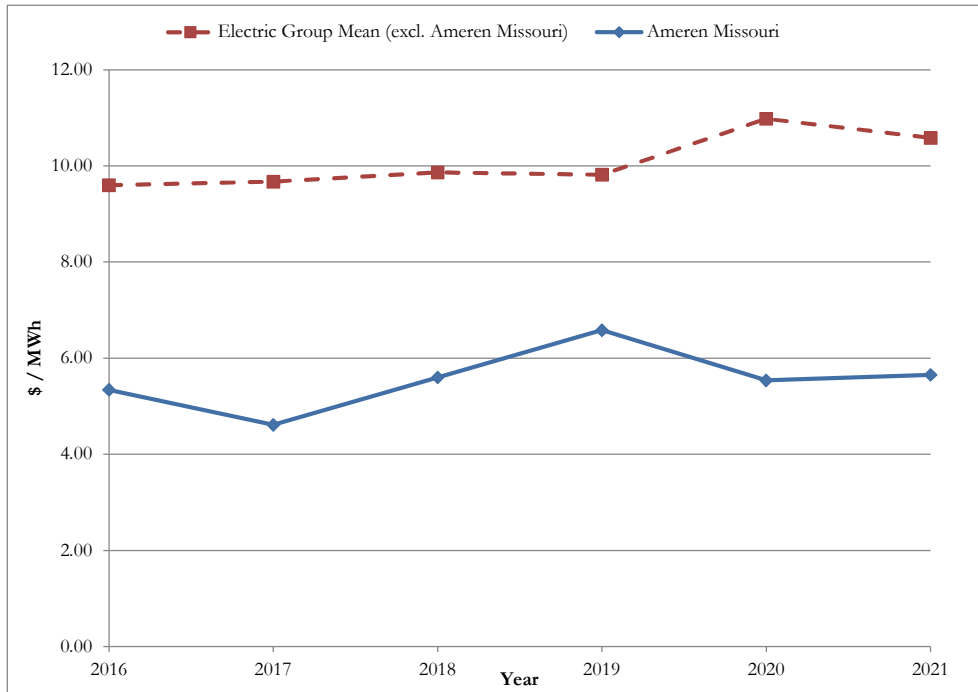
<b>Non-Fuel Production O&amp;M (Excluding Nuclear) per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	129	125	147	146	129	149
Electric Group Mean (excl. Ameren Missouri)	210	202	211	195	177	178
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric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



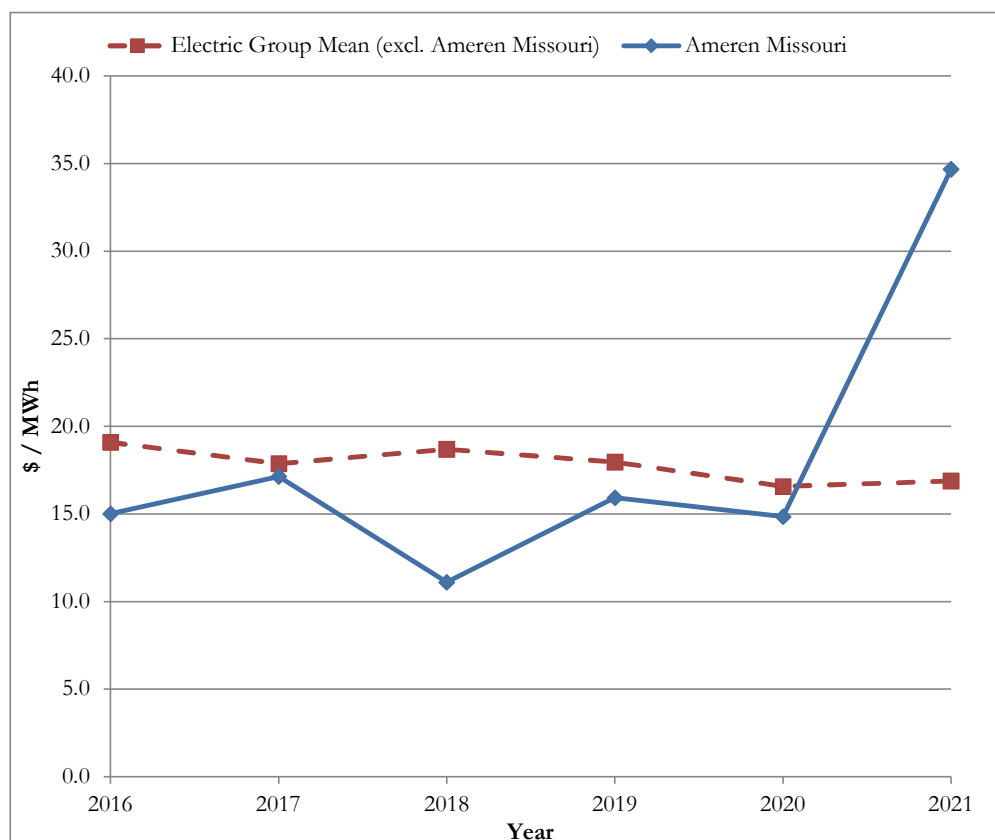
**Non-Fuel Production O&M per MWh Produced (Excluding Nuclear)  
Cost Efficiency**



<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

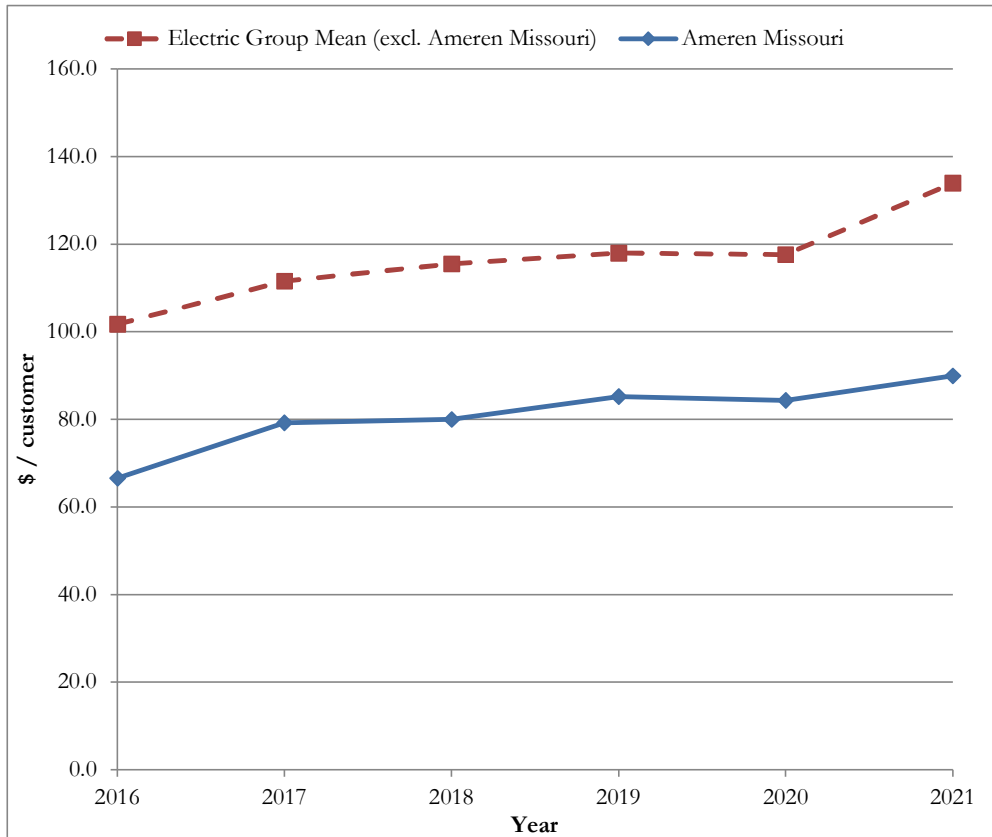
## Non-Fuel Nuclear Production O&M per Nuclear MWh Produced Cost Efficiency



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)

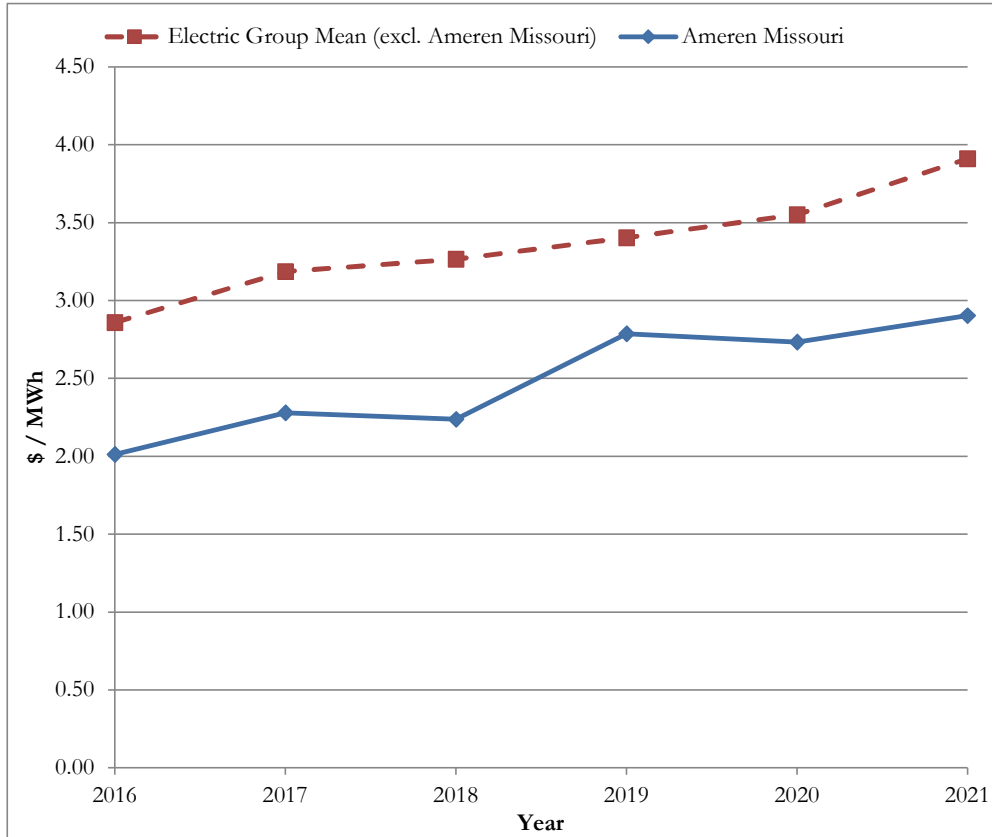
## Transmission O&M per Customer Cost Efficiency



<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

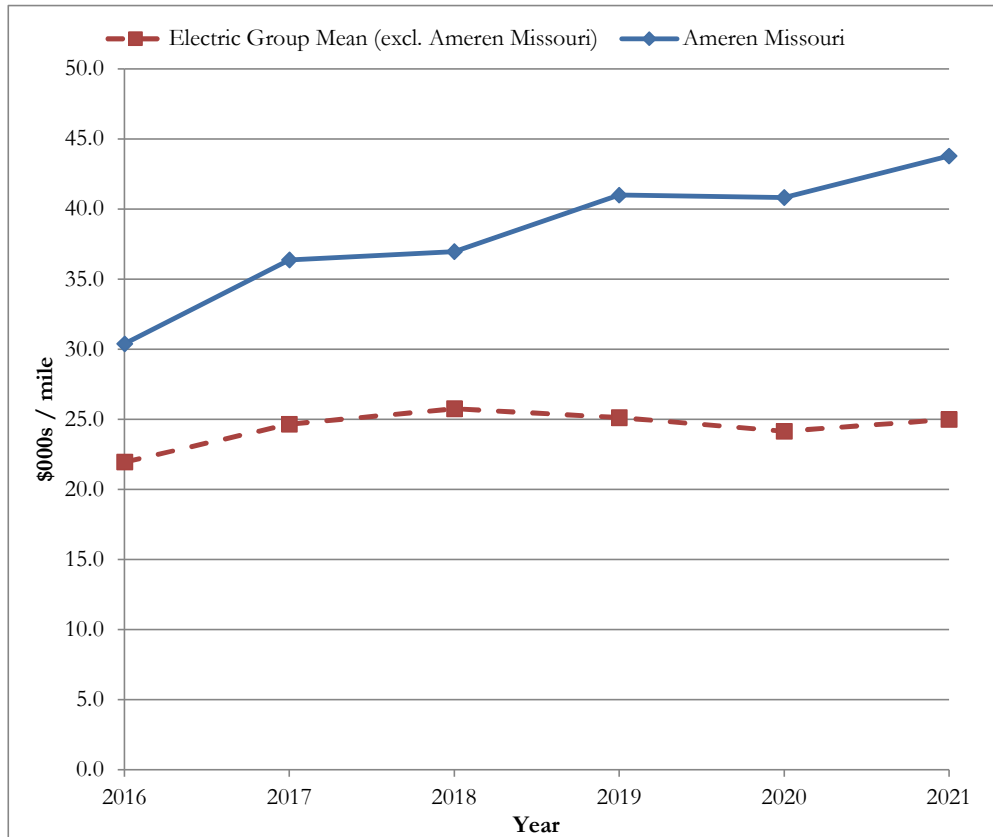
## Transmission O&M per MWh Cost Efficiency



<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

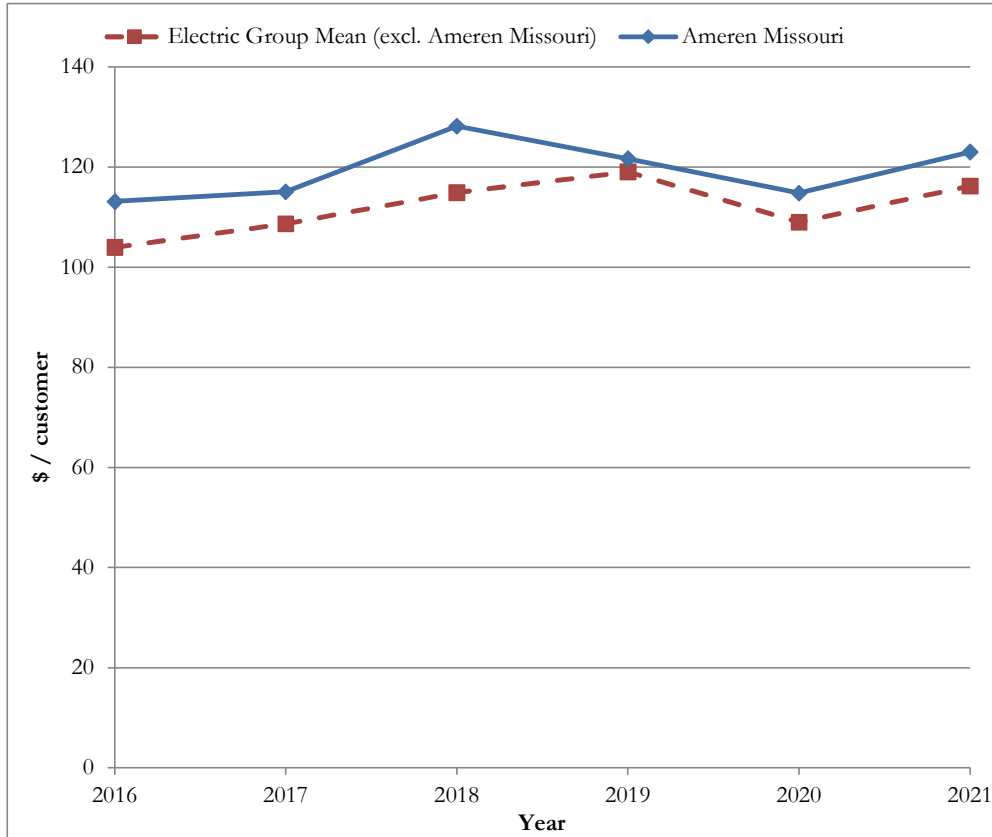
## Transmission O&M per Mile of Transmission Line Cost Efficiency



Transmission O&M per Mile of Transmission Line						
<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)

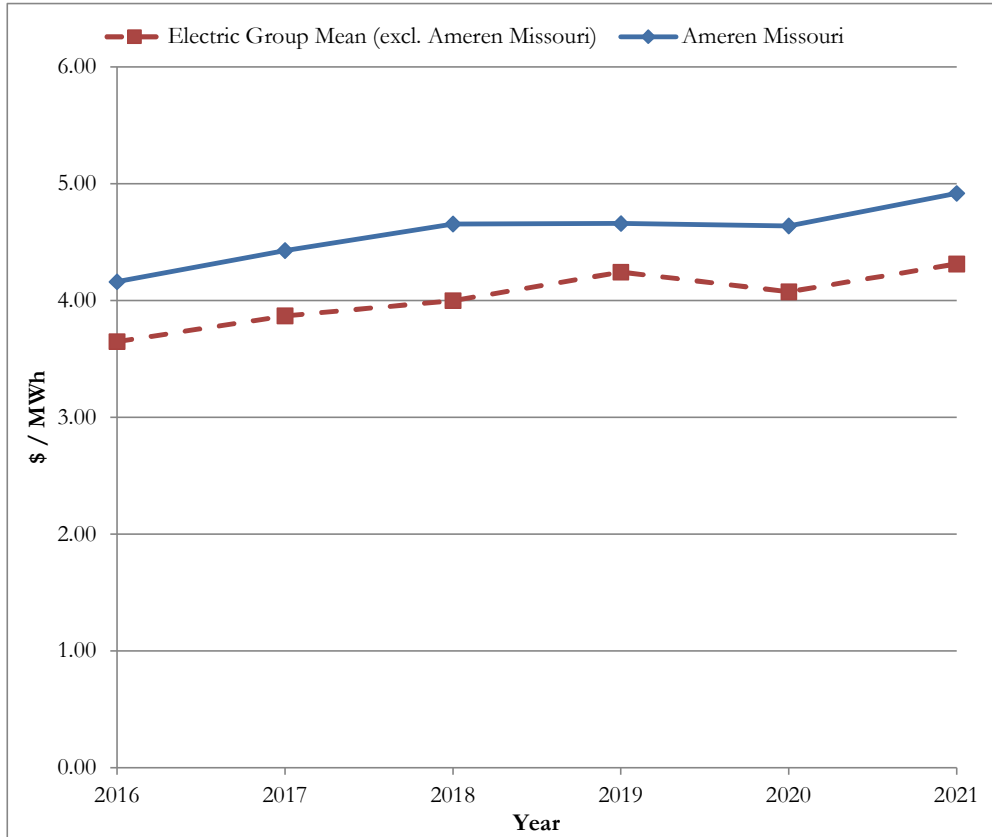
## Distribution O&M per Customer Cost Efficiency



<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

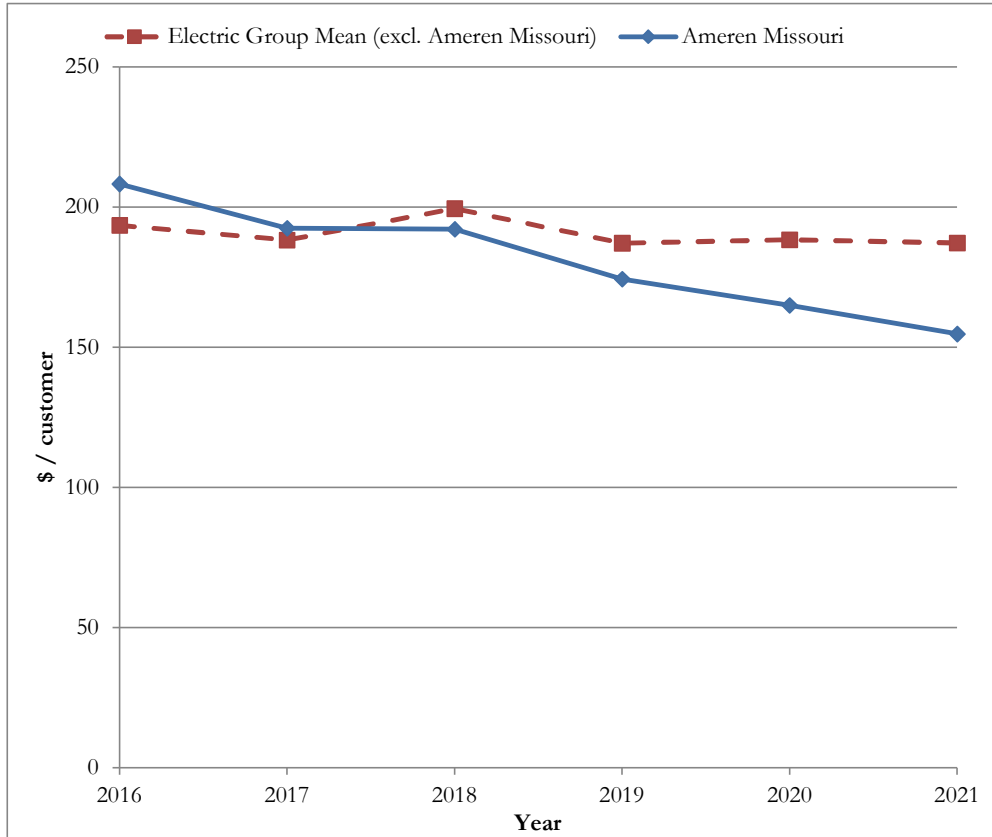
### Distribution O&M per MWh Cost Efficiency



<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

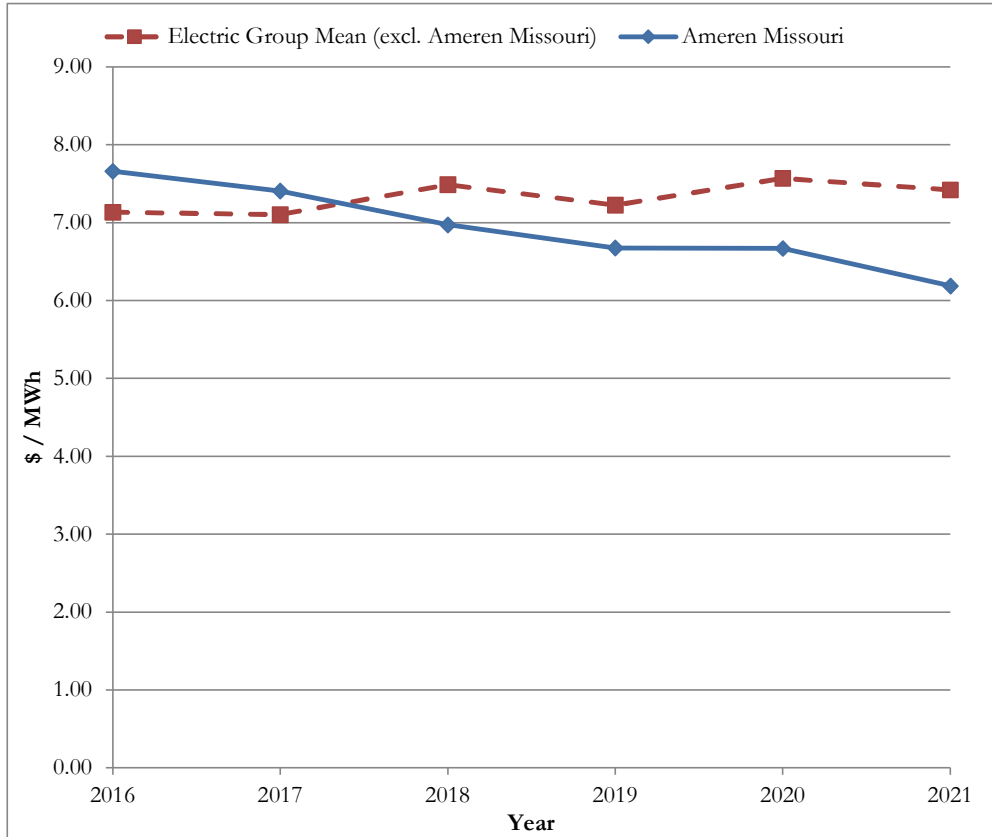


<b>A&amp;G Expense per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	208	193	192	174	165	155
Electric Group Mean (excl. Ameren Missouri)	193	188	199	187	188	187
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:						
Ameren Missouri	14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



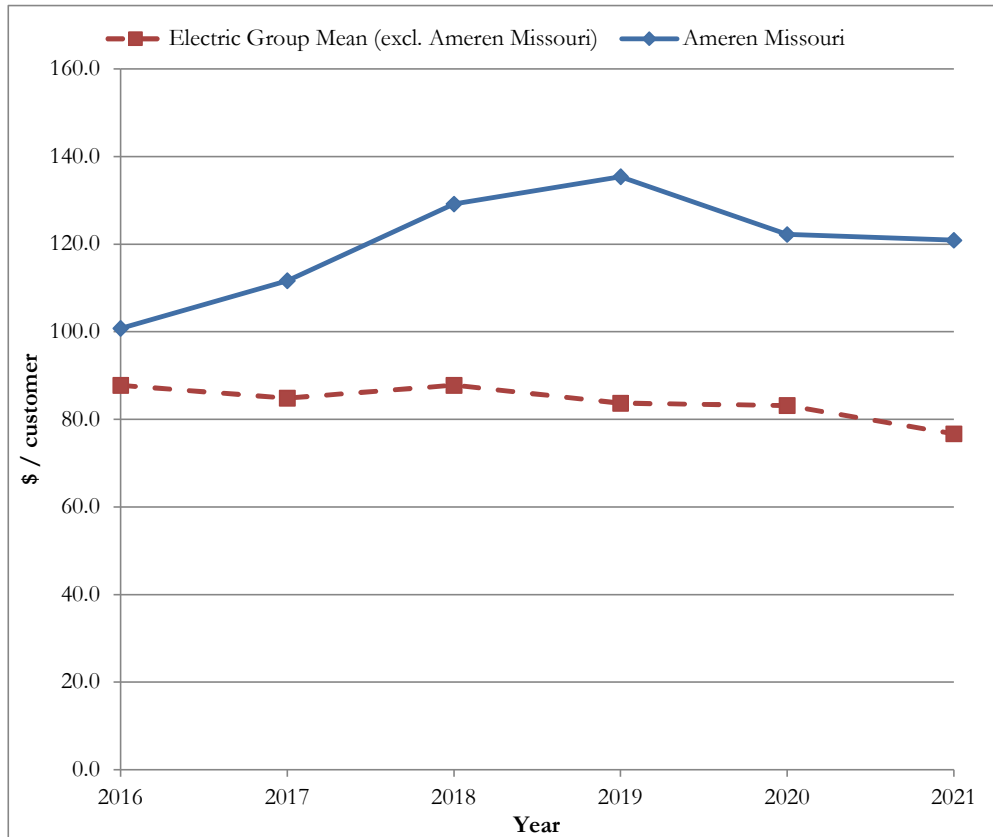
## A&G Expense per MWh Cost Efficiency



<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

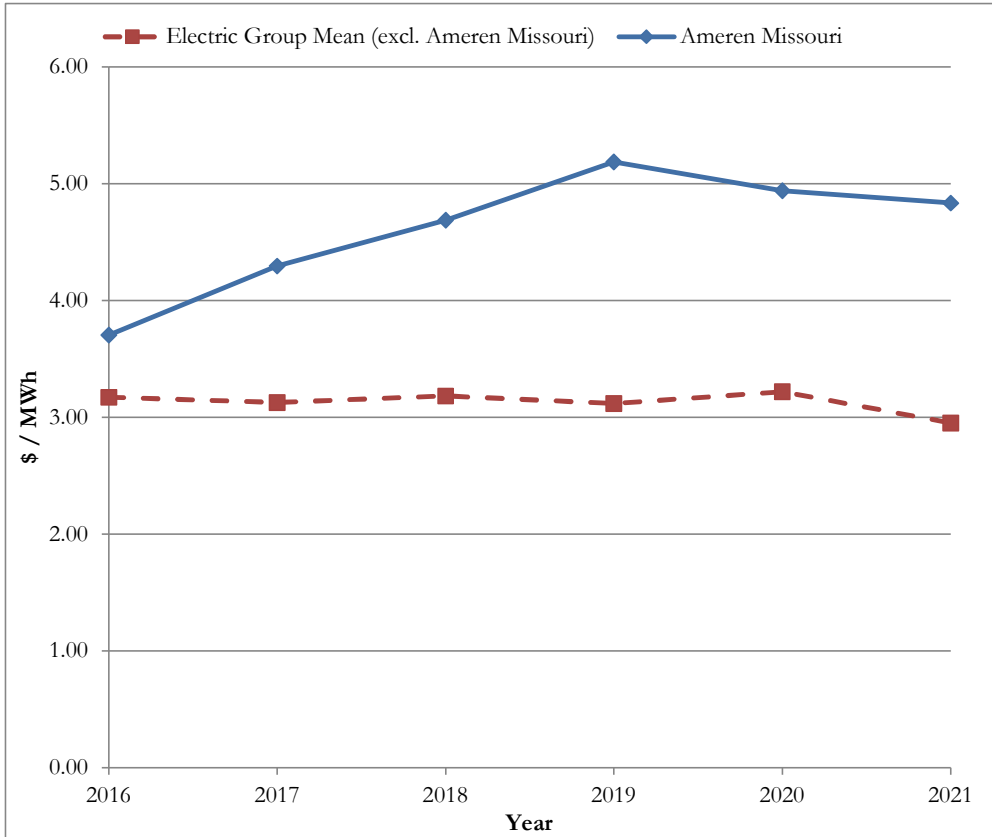


<b>Customer Expense per Customer</b>						
<i>Annual Values</i>						
	2016	2017	2018	2019	2020	2021
Ameren Missouri	100.8	111.7	129.1	135.4	122.2	120.9
Electric Group Mean (excl. Ameren Missouri)	87.8	84.8	87.8	83.7	83.2	76.7
<i>Rankings</i>						
	2016	2017	2018	2019	2020	2021
Electric Group:					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

1 **Additional Information Ameren Missouri as was Provided per the Second Stipulation in**  
2 **File No. ER-2019-0335**

- 3 i. The total amount of affiliate transactions charges to Ameren Missouri and affiliate  
4 transaction charges by Ameren Missouri to an affiliate in the test year, by account  
5 and affiliate. *This information is provided to Staff each quarter in the CAM Report*  
6 *that the Company has provided for several years. That Report for the test year is*  
7 *also included in the Company's direct case workpapers.*
- 8 ii. The Fully Distributed Cost Study (the "FDC Study") being conducted as agreed  
9 upon with the Staff as provided in the Non-Unanimous Stipulation and Agreement  
10 submitted in File No. EO-2017-0176 (the "EO-2017-0176 Stipulation"). *The*  
11 *Company provided the agreed-upon FDC study in File No. ER-2021-0240.*
- 12 iii. To the extent the FDC Study did not study the fully distributed cost of Ameren  
13 Missouri to itself perform a function currently performed by Ameren Services  
14 Company ("AMS") (legal, human resources, accounting, etc.), and only studied  
15 costs to AMS, a detailed explanation for each function that demonstrates why an  
16 FDC study for Ameren Missouri is not necessary or reasonable. *As I indicated in*  
17 *my testimony in the prior rate case, I do not believe it is necessary or reasonable*  
18 *for Ameren Missouri to study the fully distributed cost of Ameren Missouri to itself*  
19 *to perform a function currently performed by AMS. As discussed in my testimony*  
20 *to which this Schedule is attached, AMS costs Ameren Missouri incurs are prudent*  
21 *and reasonable and thru the Joint Planning and Procurement and Demand*  
22 *Planning processes discussed by Ms. Moore in her direct testimony. Ameren*  
23 *Missouri could, if it chose to do so, reduce the services it takes from AMS in given*

1            *areas and self-provide. The costs for these services received from AMS are, at*  
2            *worst, the same as if Ameren Missouri were to self-provide the services. It is much*  
3            *more likely, however, that due to the economies of scale realized by centralizing*  
4            *the shared services at AMS, the services are provided at a cost lower than if Ameren*  
5            *Missouri were to self-provide the services on a stand-alone basis. As shown by my*  
6            *analyses in Schedule JJR-D3 thru Schedule JJR-D23, the aggregate costs of these*  
7            *services has been materially reduced through the use of AMS.*

8  
9            **iv.**    Where benchmarking is used to assess AMS costs: (1) a detailed description of how  
10           *Ameren performed or obtained its benchmarking; (2) identification of all*  
11           *benchmarking results and any steps taken to address the results; and (3) all*  
12           *associated AMS or Ameren Missouri work-papers and supporting documents. As*  
13           *my testimony indicates, a majority of Ameren Services costs consist of salaries,*  
14           *wages, and benefits which are benchmarked against several sources. It is my*  
15           *understanding that those services are subscription-based and proprietary and can*  
16           *only be made available electronically, but it is my understanding that Ameren*  
17           *Missouri will make arrangements to provide access as needed as part of this docket,*  
18           *as it has done in prior rate reviews. I have also provided significant benchmarking*  
19           *results as part of this testimony.<sup>1</sup>*

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<sup>1</sup> The primary benchmarking relevant to overall AMS costs that Ameren Missouri formerly used (the PSEG study) is no longer being done by the study sponsor.

1 v. Identification of all affiliate transaction costs in the test year that were incurred by  
2 Ameren Missouri following a request for proposal issued by or on Ameren  
3 Missouri's behalf and receipt of bids.

4 vi. Identification of all affiliate transaction costs in the test year that were incurred by  
5 Ameren Missouri without a request for proposal issued by or on Ameren Missouri's  
6 behalf and receipt of bids, and an explanation of why competitive bidding was not  
7 necessary.

8 *With respect to items v and vi, there are no costs that fall into those categories.*

9 *As has previously been discussed, the Company seeks competitive bids from non-*

10 *affiliated companies when a lower cost or higher quality of service can*

11 *reasonably be expected to be achieved. Examples of such assessments that*

12 *resulted in AMS outsourcing the service, on behalf of Ameren Missouri, include*

13 *lock box services, administrative work involving buying, selling, registering*

14 *shares of Ameren stock, printing and distribution of customer bills, certain*

15 *vegetation management services, and janitorial services and, as I also noted*

16 *earlier, AMS follows procurement policies and procedures (which often include*

17 *using competitive bidding) to acquire goods/services that it then uses to provide*

18 *services to Ameren affiliates, including Ameren Missouri.*

19 *It is important to note that there is no need to perpetually solicit bids to ensure the*

20 *reasonableness of the Company's wages, benefits, and cost of goods and*

21 *materials. In fact, if these kinds of solicitations were attempted, it would be*

22 *unproductive and burdensome and potential bidders would likely stop bidding*

23 *after a while. AMS' employees are paid prevailing wages and provide services*

1           *without markup or profit. An unaffiliated bidder would also pay its employees a*  
2           *prevailing wage and include a markup for profit. If an unaffiliated service*  
3           *provider's proposal was repeatedly rejected based upon price, the bidder will*  
4           *eventually stop responding to the Company's request for proposals. Further, it is*  
5           *important that Ameren Services attract and retain a knowledgeable, high-*  
6           *performing, efficient, and cost-effective workforce. Perpetually requiring*  
7           *solicitation, training, and retention of non-affiliated service providers from a for-*  
8           *profit company would increase the total cost of AMS' services provided to*  
9           *Ameren Missouri and attracting and retaining high-performing employees would*  
10          *be increasingly difficult as their jobs were regularly considered for outsourcing.*  
11          *My viewpoint on this topic is consistent with views expressed by the Staff, as*  
12          *indicated by testimony from Staff witness Mr. Oligshlaeger's in File No. ER-2019-*  
13          *0335 on p. 9 ll. 17-19, where he concluded that "given the inherent cost advantages*  
14          *and efficiencies associated with service company structures, Staff views the*  
15          *prospect of mass competitive bidding for AMS services to be not cost effective."*  
16          *He went on to say "in Staff's view, good cause exists for Ameren Missouri not to*  
17          *primarily rely upon competitive bidding procedures to determine the*  
18          *reasonableness of obtaining services from AMS".*

- 19          **vii.** Identification of Ameren Corporation board of director and investor relations costs  
20          being charged to Ameren Missouri through an allocation process, and a detailed  
21          explanation of the allocation factors or process by which the charges are allocated  
22          to Ameren Missouri. *The Company has identified the Ameren Corporation board*  
23          *of director and investor relations costs charged to Ameren Missouri. Included*

1            *within the data are the costs being charged to Ameren Missouri and a detailed*  
2            *explanation of the allocation process by which the charges were allocated to*  
3            *Ameren Missouri. It is my understanding that this information is included in the*  
4            *Company's workpapers being provided in connection with the filing of this case.*

5            viii.    The General Office Building space study as provided for in the EO-2017-0176  
6            Stipulation. *The agreed-upon space study was provided by the Company as part of*  
7            *its workpapers in its last rate case. According to the Company's CAM, the study*  
8            *will be redone every five years. The last study was done at the end of 2020.*

9            ix.      Year-end Ameren Missouri and AMS employee organization charts showing all  
10           positions at year end 2019, it being agreed that the "organization charts" can consist  
11           of a spreadsheet listing all such employees and their titles, by employer.  
12           *Organization charts for Ameren Missouri and AMS at year end 2021 are being*  
13           *provided as part of the Company's workpapers.*



