

Exhibit No.: _____
Issue: Depreciation
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Witness: John J. Spanos
Sponsoring Party: Ameren Missouri
Case No.: GR-2021-0241
Date: October 15, 2021

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-2021-0241

REBUTTAL TESTIMONY OF

JOHN J. SPANOS

ON BEHALF OF

AMEREN MISSOURI

Camp Hill, Pennsylvania

October 15, 2021

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1 **I. INTRODUCTION AND PURPOSE**

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

3 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
4 Pennsylvania.

5 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS MATTER?**

6 A. No. However, my depreciation study was sponsored by Company witness, Mitchell
7 Lansford.

8 **Q. ARE YOU ASSOCIATED WITH ANY FIRM?**

9 A. Yes. I am associated with the firm of Gannett Fleming Valuation and Rate
10 Consultants, LLC (“Gannett Fleming”).

11 **Q. HOW LONG HAVE YOU BEEN ASSOCIATED WITH GANNETT
12 FLEMING?**

13 A. I have been associated with the firm since June, 1986.

14 **Q. WHAT IS YOUR POSITION WITH THE FIRM?**

15 A. I am President.

16 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

17 A. I am testifying on behalf of Ameren Missouri (“Ameren Missouri” or the “Company”).

18 **Q. PLEASE STATE YOUR QUALIFICATIONS.**

19 A. I have over 35 years of utility depreciation experience, which includes providing
20 expert testimony in over 380 cases before approximately 41 regulatory commissions,
21 including this Commission. These cases have included depreciation studies in the
22 electric, gas, water, wastewater and pipeline industries. In addition to the cases where
23 I have submitted testimony, I have supervised in over 700 other depreciation or

1 valuation assignments. Please refer to Schedule JJS-R1 for my qualifications
2 statement, which includes further information regarding my work history, case
3 experience and leadership in the Society of Depreciation Professionals.

4 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

5 A. The purpose of my testimony is to rebut two aspects of the Staff Report filed by the
6 Missouri Public Service Commission Staff (“Staff”) related to depreciation. First, I
7 will rebut the proposed life and net salvage estimate adjustments proposed by Staff.
8 Second, I will rebut the accounts to which Staff proposed reallocation of the negative
9 accumulated reserve associated with Accounts 305.00, Structures and Improvements;
10 311.00, Liquefied Petroleum Gas Equipment; and 387.00, Other Equipment. Finally,
11 I will address the handling of AMI gas modules for the smart meter program.

12 **Q. WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

13 A. The subject of my testimony is depreciation. Specifically, I will address Staff’s
14 proposed life and net salvage estimate adjustments, and Staff’s reallocation of
15 negative accumulated reserve.

16 **II. STAFF’S PROPOSED ADJUSTMENTS TO LIFE AND NET SALVAGE**
17 **ESTIMATES**

18 **A. LIFE ESTIMATES**

19 **Q. WHAT ADJUSTMENTS TO THE COMPANY PROPOSED LIFE**
20 **ESTIMATES IS STAFF PROPOSING?**

21 A. Staff proposes to adjust the life estimate set forth in the Depreciation Study for seven
22 Accounts. Table 1 below sets forth the life estimates proposed by the Company in the
23 Depreciation Study and those proposed by Staff by FERC Account.

1

**TABLE 1.
COMPANY PROPOSED VS. STAFF PROPOSED LIFE ESTIMATES**

| | ACCOUNT | COMPANY PROPOSED LIFE ESTIMATE | STAFF PROPOSED LIFE ESTIMATE |
|-----|---|---|---|
| 369 | MEASURING AND REGULATING STATION EQUIPMENT | 45-R2.5 | 50-R3 |
| 375 | STRUCTURES AND IMPROVEMENTS | 45-R2 | 50-R2 |
| 376 | MAINS | 58-S1.5 | 60-L2.5 |
| 380 | SERVICES | 47-S0.5 | 60-L1 |
| 383 | HOUSE REGULATORS | 45-R3 | 47-L3 |
| 390 | STRUCTURES AND IMPROVEMENTS | 38-R2 | 38-R1 |
| 392 | TRANSPORTATION EQUIPMENT | 13-S1.5 | 13-L2.5 |

2 **Q. HAS STAFF PROVIDED ANY EXPLANATION OR JUSTIFICATION FOR**
3 **ITS PROPOSED ADJUSTMENTS?**

4 A. No. Staff provides no explanation of or support for its proposed adjustments to the
5 life estimates for the accounts set forth in Table 1 above.

6 **Q. DO YOU AGREE WITH THE LIFE ESTIMATES STAFF HAS PROPOSED**
7 **AS SET FORTH IN TABLE 1 ABOVE?**

8 A. No.

9 **Q. WHAT IS THE MAIN ISSUE WITH THE LIFE PROPOSALS MADE BY**
10 **STAFF?**

11 A. The major issue with the service life proposals made by Staff is that the overall life
12 cycle for each asset class is not reasonable. A survivor curve should reflect the overall
13 life cycle of the assets as each curve should reflect the matching of the utilization of
14 the asset with the recovery of the asset. For many of the accounts that Staff
15 recommends a different survivor curve, it is clear this critical component of life
16 estimation is not considered.

1 As will be discussed in the account analysis below, Staff appears to base its
2 proposals purely on mathematical results, contrary to the way proper life analysis
3 should be conducted. Additionally, Staff’s proposals are an excessive change in the
4 life cycle that is currently being utilized by the Company given the five-year span
5 since the time the last parameters were approved.

6 **Q. DO ANY DEPRECIATION AUTHORITIES SUPPORT THAT THE**
7 **ESTIMATION OF SERVICE LIVES SHOULD BE BASED ON MORE THAN**
8 **MATHEMATICAL RESULTS?**

9 A. Yes. For example, NARUC makes clear that factors other than the statistical analysis
10 must be considered. Chapter XIII of *Public Utility Depreciation Practices*, entitled
11 “Actuarial Life Analysis” discusses and emphasizes the subjective nature of the
12 process of estimating service lives. NARUC starts this chapter by explaining that the
13 analysis of historical data is only one part of the process of estimating service lives:

14 Actuarial analysis objectively measures how the company has retired
15 its investment. The analyst must then judge whether this historical
16 view depicts the future life of the property in service. The analyst takes
17 into consideration various factors, such as changes in technology,
18 services provided, or capital budgets.¹

19
20 NARUC makes clear that the process of estimating service lives must go beyond any
21 objective measurement of the past. In describing the determination of a survivor curve
22 estimate (referred to as the “projection life” in this passage), NARUC states:

23 The projection life is a projection, or forecast, of the future of the
24 property. Historical indications may be useful in estimating a
25 projection life curve. Certainly the observations based on the
26 property’s history are a starting point. Trends in life or retirement
27 dispersion can often be expected to continue. Likewise, unless there is
28 some reason to expect otherwise, stability in life or retirement

¹ National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 111.

1 dispersion can be expected to continue, at least in the near term.

2
3 Depreciation analysts should avoid becoming ensnared in the
4 mechanics of the historical life study and relying solely on
5 mathematical solutions. The reason for making an historical life
6 analysis is to develop a sufficient understanding of history in order to
7 evaluate whether it is a reasonable predictor of the future. The
8 importance of being aware of circumstances having direct bearing on
9 the reason for making an historical life analysis cannot be understated.
10 These circumstances, when factored into the analysis, determine the
11 application and limitations of an historical life analysis.²
12

13 Thus, NARUC strongly advises against the apparent approach used by Staff, clearly
14 stating that “relying solely on mathematical solutions” should be avoided. NARUC
15 further elaborates on the need for a subjective component to forecasting service lives:

16 A depreciation study is commonly described as having three periods of
17 analysis: the past, present, and future. The past and present can usually
18 be analyzed with great accuracy using many currently available
19 analytical tools. The future still must be predicted and must largely
20 include some subjective analysis. *Informed judgment* is a term used to
21 define the subjective portion of the depreciation study process. It is
22 based on a combination of general experience, knowledge of the
23 properties and a physical inspection, information gathered throughout
24 the industry, and other factors which assist the analyst in making a
25 knowledgeable estimate.
26

27 The use of informed judgment can be a major factor in forecasting. A
28 logical process of examining and prioritizing the usefulness of
29 information must be employed, since there are many sources of data
30 that must be considered and weighed by importance. For example, the
31 following forces of retirement need to be considered: Do the past and
32 current service life dispersions represent the future? Will scrap prices
33 rise or fall? What will be the impact of future technological
34 obsolescence? Will the company be in existence in the future? The
35 analyst must rank the factors and decide the relative weight to apply to
36 each. The final estimate might not resemble any one of the specific
37 factors; however, the result would be a decision based upon a
38 combination of the components.³
39

² National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 126. Emphasis added.

³ National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 128. Emphasis added.

1 **Q. HAVE YOU INCORPORATED THE VARIOUS FACTORS DISCUSSED BY**
2 **NARUC INTO YOUR ESTIMATES?**

3 A. Yes. In prior studies, site visits were conducted. In this study, and prior studies,
4 discussions with Company personnel were conducted to familiarize myself with the
5 Company's assets. In addition, throughout my career, I have performed hundreds of
6 depreciation studies for numerous utilities. The information obtained from this
7 experience has also been incorporated into my recommendations.

8 **Q. PLEASE ILLUSTRATE THE ISSUES IN THE LIFE ESTIMATES SET**
9 **FORTH BY STAFF.**

10 A. Accounts 376 (Mains) and 380 (Services) will be used to illustrate why the survivor
11 curves recommended by the Company are more reasonable than those proposed by
12 Staff for these asset classes.

13 **Q. WHAT WERE THE SURVIVOR CURVE PROPOSALS RELATED TO**
14 **ACCOUNT 376 (MAINS)?**

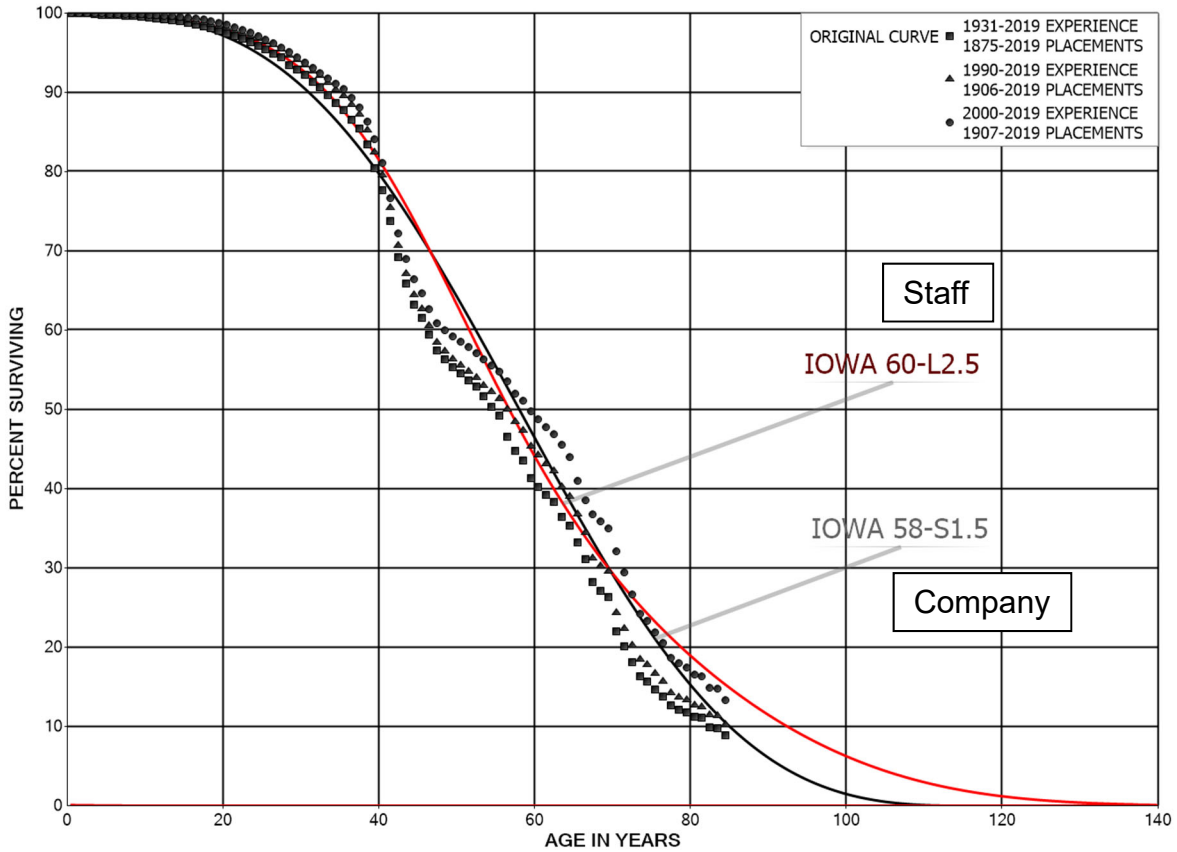
15 A. The Company proposes the 58-S1.5 survivor curve while Staff proposes to utilize the
16 60-L2.5 survivor curve. The currently approved estimate is the 50-R3 survivor curve
17 which means not only has Staff increased the average life by 12 years but the overall
18 life cycle by 60 years.

19 **Q. PLEASE EXPLAIN WHY THE COMPANY PROPOSED SURVIVOR CURVE**
20 **SHOULD BE ACCEPTED INSTEAD OF THE STAFF PROPOSED**
21 **SURVIVOR CURVE.**

22 A. As mentioned above, the 60-L2.5 proposed by Staff appears to be based solely on
23 mathematical curve fitting results or at least the type curve was selected based solely

1 on mathematical curve fitting. The 56-L2.5 survivor curve is the best statistical fit but
2 that does not mean any average life with that curve is the best fit. There are more
3 components than mathematical curve fitting involved with proper life analysis, and
4 many factors in addition to mathematical fitting indications to be considered. Please
5 see Figure 1 below for a comparison of the proposed survivor curves for this account,
6 using the most representative data points which were shown in the depreciation study.
7 For this account, the data points I have emphasized are those which have more than
8 \$20,000 in investment. These are also most of the data points for which the
9 retirements by age are still reliable as compared to the exposures. The older data
10 points are less relevant for this account when determining life characteristics of mains
11 in service today.

1 **Figure 1: Comparison of Company and Staff Proposed Survivor Curves for**
 2 **Account 376.00, Mains**



3
 4 In the chart above, both curves are relatively close to the data for the three bands
 5 considered for analysis. However, there are some key details that favor the
 6 Company’s estimate over Staff’s. First, the currently approved estimate for this
 7 account is the 50-R3 survivor curve so an increase in average service life of 12 years
 8 is excessive for this type of asset particularly with the effort to address replacing older,
 9 leak-prone pipe. So an 8 year average life is already fairly large given the last study
 10 was only 5 years ago. The other key factor Staff does not appear to have considered
 11 is the full life cycle of their estimate. Staff’s proposed survivor curve recommends an
 12 average life of 60 years and maximum life of 140 years of age — these are not a
 13 realistic combination for the types of assets in this account nor a reasonable plan for

1 the future of these assets. Further, Staff's survivor curve suggests that close to 20
2 percent of the assets in this account will survive to be over 80 years of age and that it
3 will take 60 additional years for the rest of the 20 percent of mains that made it 80
4 years to be retired. Staff's recommendation does not result in a reasonable life cycle
5 for this account. Instead, the estimate used by the Company, the 58-S1.5 survivor
6 curve, is the most appropriate estimate for this account.

7 **Q. WHAT WERE THE SURVIVOR CURVE PROPOSALS RELATED TO**
8 **ACCOUNT 380 (SERVICES)?**

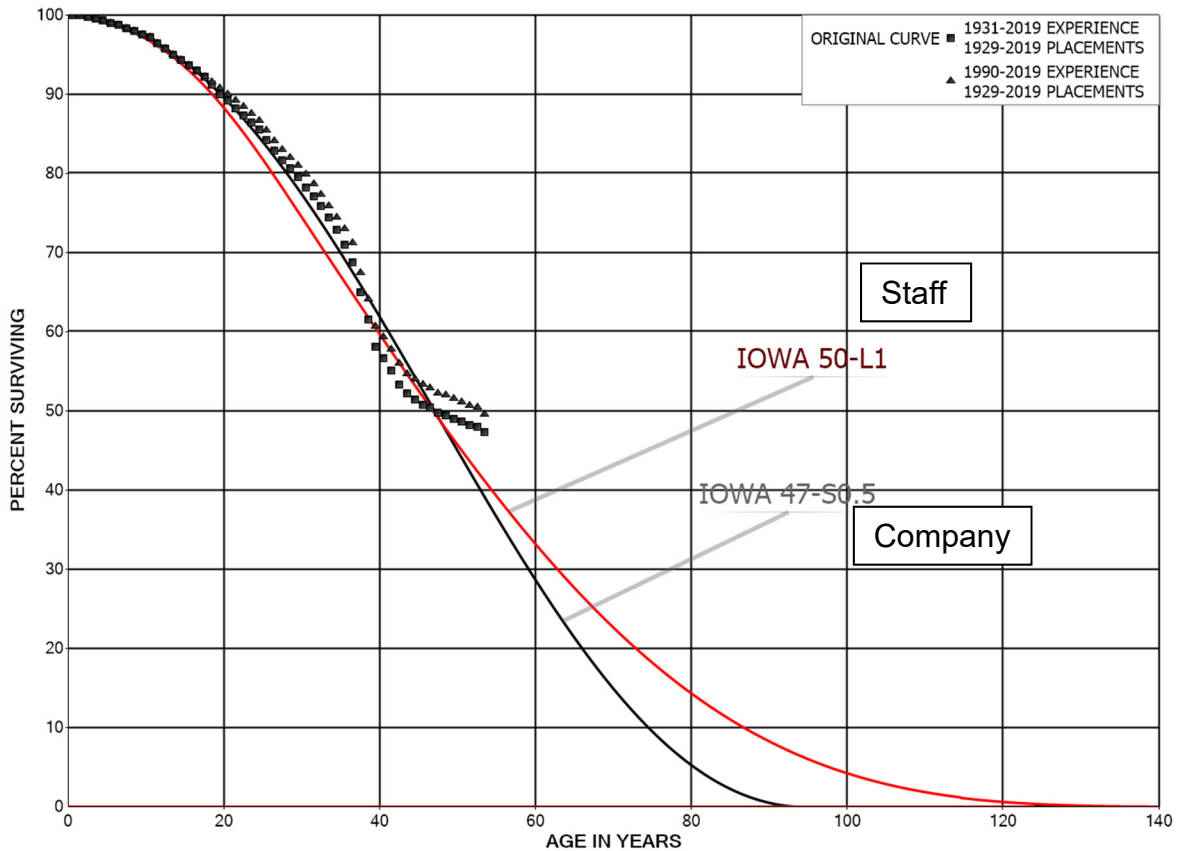
9 A. The Company proposed the 47-S0.5 survivor curve for this account, while Staff
10 proposed the 50-L1 survivor curve.

11 **Q. PLEASE EXPLAIN WHY THE COMPANY'S SURVIVOR CURVE IS THE**
12 **MOST APPROPRIATE FOR THIS ACCOUNT.**

13 A. Figure 2 below sets forth the comparison the Company's 47-S0.5 survivor curve to
14 the 50-L1 survivor curve proposed by Staff for Account 380, Services. The 47-S0.5
15 survivor curve is a much better representation of the significant portion of the
16 historical data for this account. Staff appears to emphasize a very small percentage of
17 the gas services when considering the 50-L1 type curve. The exposures for this
18 account begin at age 0 with 160,882,613 and the significant portion of the life cycle
19 can be reflected through age 53.5 which has 277,613 exposures. The 47-S0.5 is the
20 best statistical fit for these assets and represents an appropriate life cycle with a
21 maximum life of 90 years. In contrast, the 50-L1 type curve selected by Staff
22 anticipates that retirements will decrease with age after age 50 and that some gas
23 services will still be in service to age 130. It is not reasonable to expect that 33 percent

1 of gas services will last 60 years and some of those that have made it to year 60 will
2 last another 70 years. Therefore, the 47-S0.5 is the more appropriate estimate for this
3 account.

4 **Figure 2: Comparison of Company and Staff Proposed Survivor Curves for**
5 **Account 380.00, Services**



6

B. NET SALVAGE ESTIMATES

7 **Q. WHAT ADJUSTMENTS TO COMPANY PROPOSED NET SALVAGE**
8 **ESTIMATES IS STAFF PROPOSING?**

9 A. Staff proposes adjustments to the Company proposed net salvage estimates for two
10 FERC Accounts. For Account 376 (Mains), the Company has proposed a net salvage
11 estimate of negative 10%, and Staff has proposed a net salvage estimate of negative

1 5%. For Account 381 (Meters), the Company has proposed a net salvage estimate of
2 positive 2%, and Staff has proposed a net salvage estimate of positive 3%.

3 **Q. HAS STAFF PROVIDED ANY EXPLANATION OR JUSTIFICATION FOR**
4 **ITS PROPOSED ADJUSTMENTS?**

5 A. No. Staff provides no explanation of or support for its proposed adjustments to the
6 net salvage estimates proposed by the Company.

7 **Q. IS THERE ANY REASON TO AGREE TO THE NET SALVAGE ESTIMATES**
8 **STAFF HAS PROPOSED FOR FERC ACCOUNTS 376 AND 381?**

9 A. No.

10 **Q. WHY DO YOU DISAGREE WITH NET SALVAGE ESTIMATES STAFF HAS**
11 **PROPOSED FOR FERC ACCOUNTS 376 AND 381?**

12 A. I will begin with Account 376.00 (Mains). The Depreciation Study presents net
13 salvage activity for the period 1984 through 2019. As described in Part IV of the
14 Depreciation Study, determination of the most appropriate net salvage percent for
15 future assets must include a combination of statistical analysis and informed judgment
16 where informed judgment includes understanding of a company's plans for retirement
17 of the assets, current practices, current estimates and an understanding of the industry
18 practices. A complete understanding of the retirement transactions shows negative
19 net salvage more negative than 10 percent from 1984 through 1995. Also, there is
20 consistent negative net salvage from 2011 through 2019. These two periods have ages
21 of main retirements that were consistent with what is expected to occur into the future
22 so there should be emphasis on these periods for determining the future net salvage
23 percentage. Additionally, the unusually high gross salvage activity for the period 1997

1 through 2010 was the result of a process the Company was utilizing during the period
2 where assets once in service were being returned to inventory for reuse in the future
3 and their value was being recorded as gross salvage. Given the assets were being
4 returned to inventory for future use, it appears no cost of removal was being recorded
5 related to their removal. The returned assets to inventory were halted in 2011 when it
6 was determined the mains could not be reused. The net salvage percentage for almost
7 all other gas companies' distribution mains is more negative than negative 10%, which
8 the Company recommends in this case. Consequently, the negative 10% estimate is
9 the most appropriate level anticipated in the future.

10 Next, I will discuss the net salvage estimate proposed for Account 381.00
11 (Meters). The net salvage activity related to assets recorded in Account 381 (Meters)
12 is also 1984 through 2019. This account has consistently recorded zero cost of
13 removal and modest amounts of gross salvage. Again, considering all the key factors
14 such as the current market for retired meters and the most recent five year levels, the
15 positive 2% recommended in the Depreciation Study is the most appropriate into the
16 future.

C. REALLOCATION OF NEGATIVE ACCUMULATED RESERVE

17 **Q. HAS STAFF REALLOCATED THE NEGATIVE ACCUMULATED**
18 **RESERVE RELATED TO ACCOUNTS 305.00 (STRUCTURES AND**
19 **IMPROVEMENTS), 311.00 (LIQUEFIED PETROLEUM GAS EQUIPMENT)**
20 **AND 387.00 (OTHER EQUIPMENT) AS OF DECEMBER 31, 2019?**

21 **A.** Yes. Lines 22 through 24 on page 31 of Staff's direct cost of service report state: "To
22 offset these negative balances, adjustments have been made to Accounts 374

1 (Distribution Plant – Land & Land Rights), 376 (Distribution Plant – Gas Mains), and
2 380 (Services).”

3 **Q. DO YOU AGREE THAT STAFF MADE ADJUSTMENTS TO THE**
4 **ACCOUNTS PROVIDED IN THE RESPONSE TO THE PRIOR QUESTION**
5 **TO OFFSET THE NEGATIVE ACCUMULATED RESERVE ACCOCIATED**
6 **WITH ACCOUNTS 305.00 (STRUCTURES AND IMPROVEMENTS), 311.00**
7 **(LIQUEFIED PETROLEUM GAS EQUIPMENT) AND 387.00 (OTHER**
8 **EQUIPMENT)?**

9 A. No. Although Staff does seem to make reserve adjustments in its Accumulated
10 Depreciation Reserve True-Up as of September 30, 2021 in the fashion stated at lines
11 22 through 24 on page 31 of their report, Staff provided a number of workpaper files
12 that supported the development of the depreciation rates it presented in their Direct
13 Accounting Schedules. In the workpaper file Staff presented as “DEPRATE1.PRN”
14 (which is its calculation of depreciation rates as of December 31, 2019), it would
15 appear Staff offset the negative accumulated reserve as of December 31, 2019
16 associated with Account 305.00 (Structures and Improvements) to Account 375.00
17 (Structures and Improvements), Account 311.00 (Liquefied Petroleum Gas
18 Equipment) to Account 376.00 (Gas Mains), and Account 387.00 (Other Equipment)
19 to Account 378.00 (Measuring and Regulating Station Equipment – General).

20 **Q. ARE YOU OPPOSED TO HOW STAFF REALLOCATED THE NEGATIVE**
21 **ACCUMULATED RESERVE ASSOCIATED WITH ACCOUNTS 305.00**
22 **(STRUCTURES AND IMPROVEMENTS), 311.00 (LIQUEFIED**
23 **PETROLEUM GAS EQUIPMENT) AND 387.00 (OTHER EQUIPMENT) AS**

1 **IT RELATED TO THE CALCULATION OF DEPREICATION ACCRUAL**
2 **RATES AS OF DEEMBER 31, 2019?**

3 A. No. The calculation of the Company's proposed depreciation accrual rates as of
4 December 31, 2019 were calculated using the same reallocation process as was
5 utilized by Staff in the calculation of its depreciation accrual rates as of December 31,
6 2019. However, it would be appropriate to maintain the same reallocation amounts
7 when providing results for the updated test year. This has not been done, so the results
8 are not consistently calculated.

9 **III. AMI GAS MODULES**

10 **Q. IS AMEREN MISSOURI PLANNING TO BEGIN A SMART METER**
11 **PROGRAM THAT INCLUDES AMI GAS MODULES**

12 A. Yes. Ameren Missouri plans to retrofit the gas meters with an AMI gas module during
13 2023 and 2024.

14 **Q. WILL THE AMI GAS MODULES HAVE THE SAME LIFE AS THE**
15 **EXISTING GAS METERS?**

16 A. No. The gas modules will have a shorter life.

17 **Q. WHAT WOULD BE THE PROPER LIFE AND RATE FOR THE NEW AMI**
18 **GAS MODULES?**

19 A. The AMI gas modules should be their own property unit and classified separately in a
20 subaccount of gas meters. The AMI gas module should have an average life of 15
21 years and depreciation rate of 6.67%.

22 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

23 A. Yes.

Schedule JJS-R1

JOHN SPANOS

DEPRECIATION EXPERIENCE

Q. Please state your name.

A. My name is John J. Spanos.

Q. What is your educational background?

A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College.

Q. Do you belong to any professional societies?

A. Yes. I am a member and past President of the Society of Depreciation Professionals and a member of the American Gas Association/Edison Electric Institute Industry Accounting Committee.

Q. Do you hold any special certification as a depreciation expert?

A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997 and was recertified in August 2003, February 2008, January 2013 and February 2018.

Q. Please outline your experience in the field of depreciation.

A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 through December 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following

companies in the railroad industry: Union Pacific Railroad, Burlington Northern Railroad, and Wisconsin Central Transportation Corporation.

I helped perform depreciation studies for the following organizations in the electric utility industry: Chugach Electric Association, The Cincinnati Gas and Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation, and the City of Calgary - Electric System.

I helped perform depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I helped perform depreciation studies for the following gas utility companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I helped perform depreciation studies for the following water utility companies: Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manager, Depreciation and

Valuation Studies. In December 2000, I was promoted to the position as Vice-President of Gannett Fleming Valuation and Rate Consultants, Inc., in April 2012, I was promoted to the position as Senior Vice President of the Valuation and Rate Division of Gannett Fleming Inc. (now doing business as Gannett Fleming Valuation and Rate Consultants, LLC) and in January of 2019, I was promoted to my present position of President of Gannett Fleming Valuation and Rate Consultants, LLC. In my current position I am responsible for conducting all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Iowa-American Water Company; New Jersey-American Water Company; Hampton Water Works Company; Omaha Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation – CG&E; Cinergy Corporation – ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso

Electric Company; Aqua North Carolina; Aqua Ohio; Aqua Texas, Inc.; Aqua Illinois, Inc.; Ameren Missouri; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy – Oklahoma; CenterPoint Energy – Entex; CenterPoint Energy - Louisiana; NSTAR – Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Duke Energy Progress; Northern Indiana Public Service Company; Tennessee-American Water Company; Columbia Gas of Maryland; Maryland-American Water Company; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover; Louisville Gas and Electric Company; Kentucky Utilities Company; Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota Energy Resource Group; Jersey Central Power & Light Company; Cheyenne Light, Fuel and Power Company; United Water Arkansas; Central Vermont Public Service Corporation; Green Mountain Power; Portland General Electric Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black Hills Colorado Gas; Black Hills Kansas Gas; Black Hills Service Company; Black Hills Utility Holdings; Public Service Company of Oklahoma; City of

Dubois; Peoples Gas Light and Coke Company; North Shore Gas Company; Connecticut Light and Power; New York State Electric and Gas Corporation; Rochester Gas and Electric Corporation; Greater Missouri Operations; Tennessee Valley Authority; Omaha Public Power District; Indianapolis Power & Light Company; Vermont Gas Systems, Inc.; Metropolitan Edison; Pennsylvania Electric; West Penn Power; Pennsylvania Power; PHI Service Company - Delmarva Power and Light; Atmos Energy Corporation; Citizens Energy Group; PSE&G Company; Berkshire Gas Company; Alabama Gas Corporation; Mid-Atlantic Interstate Transmission, LLC; SUEZ Water; WEC Energy Group; Rocky Mountain Natural Gas, LLC; Illinois-American Water Company; Northern Illinois Gas Company; Public Service of New Hampshire and Newtown Artesian Water Company.

My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

Q. Have you submitted testimony to any state utility commission on the subject of utility plant depreciation?

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; Illinois Commerce Commission; the Indiana

Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission (“FERC”); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; the Public Service Commission of West Virginia; Maine Public Utility Commission; Iowa Utility Board; Connecticut Public Utilities Regulatory Authority; New Mexico Public Regulation Commission; Commonwealth of Massachusetts Department of Public Utilities; Rhode Island Public Utilities Commission and the North Carolina Utilities Commission.

Q. Have you had any additional education relating to utility plant depreciation?

A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.: “Techniques of Life Analysis,” “Techniques of Salvage and Depreciation Analysis,” “Forecasting Life and Salvage,” “Modeling and Life Analysis Using Simulation,” and “Managing a Depreciation Study.” I have also completed the “Introduction to Public Utility Accounting” program conducted by the American Gas Association.

Q. Does this conclude your qualification statement?

A. Yes.

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|-----|-------------|---------------------|-------------------|---|--------------------------------|
| 01. | 1998 | PA PUC | R-00984375 | City of Bethlehem – Bureau of Water | Original Cost and Depreciation |
| 02. | 1998 | PA PUC | R-00984567 | City of Lancaster | Original Cost and Depreciation |
| 03. | 1999 | PA PUC | R-00994605 | The York Water Company | Depreciation |
| 04. | 2000 | D.T.&E. | DTE 00-105 | Massachusetts-American Water Company | Depreciation |
| 05. | 2001 | PA PUC | R-00016114 | City of Lancaster | Original Cost and Depreciation |
| 06. | 2001 | PA PUC | R-00017236 | The York Water Company | Depreciation |
| 07. | 2001 | PA PUC | R-00016339 | Pennsylvania-American Water Company | Depreciation |
| 08. | 2001 | OH PUC | 01-1228-GA-AIR | Cinergy Corp – Cincinnati Gas & Elect Company | Depreciation |
| 09. | 2001 | KY PSC | 2001-092 | Cinergy Corp – Union Light, Heat & Power Co. | Depreciation |
| 10. | 2002 | PA PUC | R-00016750 | Philadelphia Suburban Water Company | Depreciation |
| 11. | 2002 | KY PSC | 2002-00145 | Columbia Gas of Kentucky | Depreciation |
| 12. | 2002 | NJ BPU | GF02040245 | NUI Corporation/Elizabethtown Gas Company | Depreciation |
| 13. | 2002 | ID PUC | IPC-E-03-7 | Idaho Power Company | Depreciation |
| 14. | 2003 | PA PUC | R-0027975 | The York Water Company | Depreciation |
| 15. | 2003 | IN URC | R-0027975 | Cinergy Corp – PSI Energy, Inc. | Depreciation |
| 16. | 2003 | PA PUC | R-00038304 | Pennsylvania-American Water Company | Depreciation |
| 17. | 2003 | MO PSC | WR-2003-0500 | Missouri-American Water Company | Depreciation |
| 18. | 2003 | FERC | ER03-1274-000 | NSTAR-Boston Edison Company | Depreciation |
| 19. | 2003 | NJ BPU | BPU 03080683 | South Jersey Gas Company | Depreciation |
| 20. | 2003 | NV PUC | 03-10001 | Nevada Power Company | Depreciation |
| 21. | 2003 | LA PSC | U-27676 | CenterPoint Energy – Arkla | Depreciation |
| 22. | 2003 | PA PUC | R-00038805 | Pennsylvania Suburban Water Company | Depreciation |
| 23. | 2004 | AB En/Util Bd | 1306821 | EPCOR Distribution, Inc. | Depreciation |
| 24. | 2004 | PA PUC | R-00038168 | National Fuel Gas Distribution Corp (PA) | Depreciation |
| 25. | 2004 | PA PUC | R-00049255 | PPL Electric Utilities | Depreciation |
| 26. | 2004 | PA PUC | R-00049165 | The York Water Company | Depreciation |
| 27. | 2004 | OK Corp Cm | PUC 200400187 | CenterPoint Energy – Arkla | Depreciation |
| 28. | 2004 | OH PUC | 04-680-EI-AIR | Cinergy Corp. – Cincinnati Gas and Electric Company | Depreciation |
| 29. | 2004 | RR Com of TX | GUD# | CenterPoint Energy – Entex Gas Services Div. | Depreciation |
| 30. | 2004 | NY PUC | 04-G-1047 | National Fuel Gas Distribution Gas (NY) | Depreciation |
| 31. | 2004 | AR PSC | 04-121-U | CenterPoint Energy – Arkla | Depreciation |
| 32. | 2005 | IL CC | 05-ICC-06 | North Shore Gas Company | Depreciation |
| 33. | 2005 | IL CC | 05-ICC-06 | Peoples Gas Light and Coke Company | Depreciation |
| 34. | 2005 | KY PSC | 2005-00042 | Union Light Heat & Power | Depreciation |

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|-----|-------------|-----------------------------|------------------------------------|--|----------------|
| 35. | 2005 | IL CC | 05-0308 | MidAmerican Energy Company | Depreciation |
| 36. | 2005 | MO PSC | GF-2005 | Laclede Gas Company | Depreciation |
| 37. | 2005 | KS CC | 05-WSEE-981-RTS | Westar Energy | Depreciation |
| 38. | 2005 | RR Com of TX | GUD # | CenterPoint Energy – Entex Gas Services Div. | Depreciation |
| 39. | 2005 | US District Court | Cause No. 1:99-CV-1693- LJM/VSS | Cinergy Corporation | Accounting |
| 40. | 2005 | OK CC | PUD 200500151 | Oklahoma Gas and Electric Company | Depreciation |
| 41. | 2005 | MA Dept Tele- com & Ergy | DTE 05-85 | NSTAR | Depreciation |
| 42. | 2005 | NY PUC | 05-E-934/05-G-0935 | Central Hudson Gas & Electric Company | Depreciation |
| 43. | 2005 | AK Reg Com | U-04-102 | Chugach Electric Association | Depreciation |
| 44. | 2005 | CA PUC | A05-12-002 | Pacific Gas & Electric | Depreciation |
| 45. | 2006 | PA PUC | R-00051030 | Aqua Pennsylvania, Inc. | Depreciation |
| 46. | 2006 | PA PUC | R-00051178 | T.W. Phillips Gas and Oil Company | Depreciation |
| 47. | 2006 | NC Util Cm. | G-5, Sub522 | Pub. Service Company of North Carolina | Depreciation |
| 48. | 2006 | PA PUC | R-00051167 | City of Lancaster | Depreciation |
| 49. | 2006 | PA PUC | R00061346 | Duquesne Light Company | Depreciation |
| 50. | 2006 | PA PUC | R-00061322 | The York Water Company | Depreciation |
| 51. | 2006 | PA PUC | R-00051298 | PPL GAS Utilities | Depreciation |
| 52. | 2006 | PUC of TX | 32093 | CenterPoint Energy – Houston Electric | Depreciation |
| 53. | 2006 | KY PSC | 2006-00172 | Duke Energy Kentucky | Depreciation |
| 54. | 2006 | SC PSC | | SCANA | Accounting |
| 55. | 2006 | AK Reg Com | U-06-6 | Municipal Light and Power | Depreciation |
| 56. | 2006 | DE PSC | 06-284 | Delmarva Power and Light | Depreciation |
| 57. | 2006 | IN URC | IURC43081 | Indiana American Water Company | Depreciation |
| 58. | 2006 | AK Reg Com | U-06-134 | Chugach Electric Association | Depreciation |
| 59. | 2006 | MO PSC | WR-2007-0216 | Missouri American Water Company | Depreciation |
| 60. | 2006 | FERC | IS05-82-002, et al | TransAlaska Pipeline | Depreciation |
| 61. | 2006 | PA PUC | R-00061493 | National Fuel Gas Distribution Corp. (PA) | Depreciation |
| 62. | 2007 | NC Util Com. | E-7 SUB 828 | Duke Energy Carolinas, LLC | Depreciation |
| 63. | 2007 | OH PSC | 08-709-EL-AIR | Duke Energy Ohio Gas | Depreciation |
| 64. | 2007 | PA PUC | R-00072155 | PPL Electric Utilities Corporation | Depreciation |
| 65. | 2007 | KY PSC | 2007-00143 | Kentucky American Water Company | Depreciation |

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|-----|-------------|---------------------|------------------------|--|----------------|
| 66. | 2007 | PA PUC | R-00072229 | Pennsylvania American Water Company | Depreciation |
| 67. | 2007 | KY PSC | 2007-0008 | NiSource – Columbia Gas of Kentucky | Depreciation |
| 68. | 2007 | NY PSC | 07-G-0141 | National Fuel Gas Distribution Corp (NY) | Depreciation |
| 69. | 2008 | AK PSC | U-08-004 | Anchorage Water & Wastewater Utility | Depreciation |
| 70. | 2008 | TN Reg Auth | 08-00039 | Tennessee-American Water Company | Depreciation |
| 71. | 2008 | DE PSC | 08-96 | Artesian Water Company | Depreciation |
| 72. | 2008 | PA PUC | R-2008-2023067 | The York Water Company | Depreciation |
| 73. | 2008 | KS CC | 08-WSEE1-RTS | Westar Energy | Depreciation |
| 74. | 2008 | IN URC | 43526 | Northern Indiana Public Service Company | Depreciation |
| 75. | 2008 | IN URC | 43501 | Duke Energy Indiana | Depreciation |
| 76. | 2008 | MD PSC | 9159 | NiSource – Columbia Gas of Maryland | Depreciation |
| 77. | 2008 | KY PSC | 2008-000251 | Kentucky Utilities | Depreciation |
| 78. | 2008 | KY PSC | 2008-000252 | Louisville Gas & Electric | Depreciation |
| 79. | 2008 | PA PUC | 2008-20322689 | Pennsylvania American Water Co. - Wastewater | Depreciation |
| 80. | 2008 | NY PSC | 08-E887/08-00888 | Central Hudson | Depreciation |
| 81. | 2008 | WV TC | VE-080416/VG-8080417 | Avista Corporation | Depreciation |
| 82. | 2008 | IL CC | ICC-09-166 | Peoples Gas, Light and Coke Company | Depreciation |
| 83. | 2009 | IL CC | ICC-09-167 | North Shore Gas Company | Depreciation |
| 84. | 2009 | DC PSC | 1076 | Potomac Electric Power Company | Depreciation |
| 85. | 2009 | KY PSC | 2009-00141 | NiSource – Columbia Gas of Kentucky | Depreciation |
| 86. | 2009 | FERC | ER08-1056-002 | Entergy Services | Depreciation |
| 87. | 2009 | PA PUC | R-2009-2097323 | Pennsylvania American Water Company | Depreciation |
| 88. | 2009 | NC Util Cm | E-7, Sub 090 | Duke Energy Carolinas, LLC | Depreciation |
| 89. | 2009 | KY PSC | 2009-00202 | Duke Energy Kentucky | Depreciation |
| 90. | 2009 | VA St. CC | PUE-2009-00059 | Aqua Virginia, Inc. | Depreciation |
| 91. | 2009 | PA PUC | 2009-2132019 | Aqua Pennsylvania, Inc. | Depreciation |
| 92. | 2009 | MS PSC | Docket No. 2011-UA-183 | Entergy Mississippi | Depreciation |
| 93. | 2009 | AK PSC | 09-08-U | Entergy Arkansas | Depreciation |
| 94. | 2009 | TX PUC | 37744 | Entergy Texas | Depreciation |
| 95. | 2009 | TX PUC | 37690 | El Paso Electric Company | Depreciation |
| 96. | 2009 | PA PUC | R-2009-2106908 | The Borough of Hanover | Depreciation |
| 97. | 2009 | KS CC | 10-KCPE-415-RTS | Kansas City Power & Light | Depreciation |
| 98. | 2009 | PA PUC | R-2009- | United Water Pennsylvania | Depreciation |

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|------|-------------|---------------------|-------------------|--|----------------|
| 99. | 2009 | OH PUC | | Aqua Ohio Water Company | Depreciation |
| 100. | 2009 | WI PSC | 3270-DU-103 | Madison Gas & Electric Company | Depreciation |
| 101. | 2009 | MO PSC | WR-2010 | Missouri American Water Company | Depreciation |
| 102. | 2009 | AK Reg Cm | U-09-097 | Chugach Electric Association | Depreciation |
| 103. | 2010 | IN URC | 43969 | Northern Indiana Public Service Company | Depreciation |
| 104. | 2010 | WI PSC | 6690-DU-104 | Wisconsin Public Service Corp. | Depreciation |
| 105. | 2010 | PA PUC | R-2010-2161694 | PPL Electric Utilities Corp. | Depreciation |
| 106. | 2010 | KY PSC | 2010-00036 | Kentucky American Water Company | Depreciation |
| 107. | 2010 | PA PUC | R-2009-2149262 | Columbia Gas of Pennsylvania | Depreciation |
| 108. | 2010 | MO PSC | GR-2010-0171 | Laclede Gas Company | Depreciation |
| 109. | 2010 | SC PSC | 2009-489-E | South Carolina Electric & Gas Company | Depreciation |
| 110. | 2010 | NJ BD OF PU | ER09080664 | Atlantic City Electric | Depreciation |
| 111. | 2010 | VA St. CC | PUE-2010-00001 | Virginia American Water Company | Depreciation |
| 112. | 2010 | PA PUC | R-2010-2157140 | The York Water Company | Depreciation |
| 113. | 2010 | MO PSC | ER-2010-0356 | Greater Missouri Operations Company | Depreciation |
| 114. | 2010 | MO PSC | ER-2010-0355 | Kansas City Power and Light | Depreciation |
| 115. | 2010 | PA PUC | R-2010-2167797 | T.W. Phillips Gas and Oil Company | Depreciation |
| 116. | 2010 | PSC SC | 2009-489-E | SCANA – Electric | Depreciation |
| 117. | 2010 | PA PUC | R-2010-22010702 | Peoples Natural Gas, LLC | Depreciation |
| 118. | 2010 | AK PSC | 10-067-U | Oklahoma Gas and Electric Company | Depreciation |
| 119. | 2010 | IN URC | Cause No. 43894 | Northern Indiana Public Serv. Company - NIFL | Depreciation |
| 120. | 2010 | IN URC | Cause No. 43894 | Northern Indiana Public Serv. Co. - Kokomo | Depreciation |
| 121. | 2010 | PA PUC | R-2010-2166212 | Pennsylvania American Water Co. - WW | Depreciation |
| 122. | 2010 | NC Util Cn. | W-218,SUB310 | Aqua North Carolina, Inc. | Depreciation |
| 123. | 2011 | OH PUC | 11-4161-WS-AIR | Ohio American Water Company | Depreciation |
| 124. | 2011 | MS PSC | EC-123-0082-00 | Entergy Mississippi | Depreciation |
| 125. | 2011 | CO PUC | 11AL-387E | Black Hills Colorado | Depreciation |
| 126. | 2011 | PA PUC | R-2010-2215623 | Columbia Gas of Pennsylvania | Depreciation |
| 127. | 2011 | PA PUC | R-2010-2179103 | City of Lancaster – Bureau of Water | Depreciation |
| 128. | 2011 | IN URC | 43114 IGCC 4S | Duke Energy Indiana | Depreciation |
| 129. | 2011 | FERC | IS11-146-000 | Enbridge Pipelines (Southern Lights) | Depreciation |
| 130. | 2011 | IL CC | 11-0217 | MidAmerican Energy Corporation | Depreciation |
| 131. | 2011 | OK CC | 201100087 | Oklahoma Gas & Electric Company | Depreciation |
| 132. | 2011 | PA PUC | 2011-2232243 | Pennsylvania American Water Company | Depreciation |

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|------|-------------|---------------------|---|---|----------------|
| 133. | 2011 | FERC | RP11-____-000 | Carolina Gas Transmission | Depreciation |
| 134. | 2012 | WA UTC | UE-120436/UG-120437 | Avista Corporation | Depreciation |
| 135. | 2012 | AK Reg Cm | U-12-009 | Chugach Electric Association | Depreciation |
| 136. | 2012 | MA PUC | DPU 12-25 | Columbia Gas of Massachusetts | Depreciation |
| 137. | 2012 | TX PUC | 40094 | El Paso Electric Company | Depreciation |
| 138. | 2012 | ID PUC | IPC-E-12 | Idaho Power Company | Depreciation |
| 139. | 2012 | PA PUC | R-2012-2290597 | PPL Electric Utilities | Depreciation |
| 140. | 2012 | PA PUC | R-2012-2311725 | Borough of Hanover – Bureau of Water | Depreciation |
| 141. | 2012 | KY PSC | 2012-00222 | Louisville Gas and Electric Company | Depreciation |
| 142. | 2012 | KY PSC | 2012-00221 | Kentucky Utilities Company | Depreciation |
| 143. | 2012 | PA PUC | R-2012-2285985 | Peoples Natural Gas Company | Depreciation |
| 144. | 2012 | DC PSC | Case 1087 | Potomac Electric Power Company | Depreciation |
| 145. | 2012 | OH PSC | 12-1682-EL-AIR | Duke Energy Ohio (Electric) | Depreciation |
| 146. | 2012 | OH PSC | 12-1685-GA-AIR | Duke Energy Ohio (Gas) | Depreciation |
| 147. | 2012 | PA PUC | R-2012-2310366 | City of Lancaster – Sewer Fund | Depreciation |
| 148. | 2012 | PA PUC | R-2012-2321748 | Columbia Gas of Pennsylvania | Depreciation |
| 149. | 2012 | FERC | ER-12-2681-000 | ITC Holdings | Depreciation |
| 150. | 2012 | MO PSC | ER-2012-0174 | Kansas City Power and Light | Depreciation |
| 151. | 2012 | MO PSC | ER-2012-0175 | KCPL Greater Missouri Operations Company | Depreciation |
| 152. | 2012 | MO PSC | GO-2012-0363 | Laclede Gas Company | Depreciation |
| 153. | 2012 | MN PUC | G007,001/D-12-533 | Integrlys – MN Energy Resource Group | Depreciation |
| 154. | 2012 | TX PUC | SOAH 582-14-1051/ TECQ 2013-2007-UCR | Aqua Texas | Depreciation |
| 155. | 2012 | PA PUC | 2012-2336379 | York Water Company | Depreciation |
| 156. | 2013 | NJ BPU | ER12121071 | PHI Service Company– Atlantic City Electric | Depreciation |
| 157. | 2013 | KY PSC | 2013-00167 | Columbia Gas of Kentucky | Depreciation |
| 158. | 2013 | VA St CC | 2013-00020 | Virginia Electric and Power Company | Depreciation |
| 159. | 2013 | IA Util Bd | 2013-0004 | MidAmerican Energy Corporation | Depreciation |
| 160. | 2013 | PA PUC | 2013-2355276 | Pennsylvania American Water Company | Depreciation |
| 161. | 2013 | NY PSC | 13-E-0030, 13-G-0031, 13-S-0032 | Consolidated Edison of New York | Depreciation |
| 162. | 2013 | PA PUC | 2013-2355886 | Peoples TWP LLC | Depreciation |
| 163. | 2013 | TN Reg Auth | 12-0504 | Tennessee American Water | Depreciation |
| 164. | 2013 | ME PUC | 2013-168 | Central Maine Power Company | Depreciation |
| 165. | 2013 | DC PSC | Case 1103 | PHI Service Company – PEPCO | Depreciation |

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|------|-------------|---------------------|-------------------|--|----------------|
| 166. | 2013 | WY PSC | 2003-ER-13 | Cheyenne Light, Fuel and Power Company | Depreciation |
| 167. | 2013 | FERC | ER13-2428-0000 | Kentucky Utilities | Depreciation |
| 168. | 2013 | FERC | ER13- -0000 | MidAmerican Energy Company | Depreciation |
| 169. | 2013 | FERC | ER13-2410-0000 | PPL Utilities | Depreciation |
| 170. | 2013 | PA PUC | R-2013-2372129 | Duquesne Light Company | Depreciation |
| 171. | 2013 | NJ BPU | ER12111052 | Jersey Central Power and Light Company | Depreciation |
| 172. | 2013 | PA PUC | R-2013-2390244 | Bethlehem, City of – Bureau of Water | Depreciation |
| 173. | 2013 | OK CC | UM 1679 | Oklahoma, Public Service Company of | Depreciation |
| 174. | 2013 | IL CC | 13-0500 | Nicor Gas Company | Depreciation |
| 175. | 2013 | WY PSC | 20000-427-EA-13 | PacifiCorp | Depreciation |
| 176. | 2013 | UT PSC | 13-035-02 | PacifiCorp | Depreciation |
| 177. | 2013 | OR PUC | UM 1647 | PacifiCorp | Depreciation |
| 178. | 2013 | PA PUC | 2013-2350509 | Dubois, City of | Depreciation |
| 179. | 2014 | IL CC | 14-0224 | North Shore Gas Company | Depreciation |
| 180. | 2014 | FERC | ER14- -0000 | Duquesne Light Company | Depreciation |
| 181. | 2014 | SD PUC | EL14-026 | Black Hills Power Company | Depreciation |
| 182. | 2014 | WY PSC | 20002-91-ER-14 | Black Hills Power Company | Depreciation |
| 183. | 2014 | PA PUC | 2014-2428304 | Borough of Hanover – Municipal Water Works | Depreciation |
| 184. | 2014 | PA PUC | 2014-2406274 | Columbia Gas of Pennsylvania | Depreciation |
| 185. | 2014 | IL CC | 14-0225 | Peoples Gas Light and Coke Company | Depreciation |
| 186. | 2014 | MO PSC | ER-2014-0258 | Ameren Missouri | Depreciation |
| 187. | 2014 | KS CC | 14-BHCG-502-RTS | Black Hills Service Company | Depreciation |
| 188. | 2014 | KS CC | 14-BHCG-502-RTS | Black Hills Utility Holdings | Depreciation |
| 189. | 2014 | KS CC | 14-BHCG-502-RTS | Black Hills Kansas Gas | Depreciation |
| 190. | 2014 | PA PUC | 2014-2418872 | Lancaster, City of – Bureau of Water | Depreciation |
| 191. | 2014 | WV PSC | 14-0701-E-D | First Energy – MonPower/PotomacEdison | Depreciation |
| 192. | 2014 | VA St CC | PUC-2014-00045 | Aqua Virginia | Depreciation |
| 193. | 2014 | VA St CC | PUE-2013 | Virginia American Water Company | Depreciation |
| 194. | 2014 | OK CC | PUD201400229 | Oklahoma Gas and Electric Company | Depreciation |
| 195. | 2014 | OR PUC | UM1679 | Portland General Electric | Depreciation |
| 196. | 2014 | IN URC | Cause No. 44576 | Indianapolis Power & Light | Depreciation |
| 197. | 2014 | MA DPU | DPU. 14-150 | NSTAR Gas | Depreciation |
| 198. | 2014 | CT PURA | 14-05-06 | Connecticut Light and Power | Depreciation |
| 199. | 2014 | MO PSC | ER-2014-0370 | Kansas City Power & Light | Depreciation |

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|------|-------------|---------------------|-----------------------------|---|----------------|
| 200. | 2014 | KY PSC | 2014-00371 | Kentucky Utilities Company | Depreciation |
| 201. | 2014 | KY PSC | 2014-00372 | Louisville Gas and Electric Company | Depreciation |
| 202. | 2015 | PA PUC | R-2015-2462723 | United Water Pennsylvania Inc. | Depreciation |
| 203. | 2015 | PA PUC | R-2015-2468056 | NiSource - Columbia Gas of Pennsylvania | Depreciation |
| 204. | 2015 | NY PSC | 15-E-0283/15-G-0284 | New York State Electric and Gas Corporation | Depreciation |
| 205. | 2015 | NY PSC | 15-E-0285/15-G-0286 | Rochester Gas and Electric Corporation | Depreciation |
| 206. | 2015 | MO PSC | WR-2015-0301/SR-2015-0302 | Missouri American Water Company | Depreciation |
| 207. | 2015 | OK CC | PUD 201500208 | Oklahoma, Public Service Company of | Depreciation |
| 208. | 2015 | WV PSC | 15-0676-W-42T | West Virginia American Water Company | Depreciation |
| 209. | 2015 | PA PUC | 2015-2469275 | PPL Electric Utilities | Depreciation |
| 210. | 2015 | IN URC | Cause No. 44688 | Northern Indiana Public Service Company | Depreciation |
| 211. | 2015 | OH PSC | 14-1929-EL-RDR | First Energy-Ohio Edison/Cleveland Electric/ Toledo Edison | Depreciation |
| 212. | 2015 | NM PRC | 15-00127-UT | El Paso Electric | Depreciation |
| 213. | 2015 | TX PUC | PUC-44941; SOAH 473-15-5257 | El Paso Electric | Depreciation |
| 214. | 2015 | WI PSC | 3270-DU-104 | Madison Gas and Electric Company | Depreciation |
| 215. | 2015 | OK CC | PUD 201500273 | Oklahoma Gas and Electric | Depreciation |
| 216. | 2015 | KY PSC | Doc. No. 2015-00418 | Kentucky American Water Company | Depreciation |
| 217. | 2015 | NC UC | Doc. No. G-5, Sub 565 | Public Service Company of North Carolina | Depreciation |
| 218. | 2016 | WA UTC | Docket UE-17 | Puget Sound Energy | Depreciation |
| 219. | 2016 | NY PSC | Case No. 16-W-0130 | SUEZ Water New York, Inc. | Depreciation |
| 220. | 2016 | MO PSC | ER-2016-0156 | KCPL – Greater Missouri | Depreciation |
| 221. | 2016 | WI PSC | | Wisconsin Public Service Corporation | Depreciation |
| 222. | 2016 | KY PSC | Case No. 2016-00026 | Kentucky Utilities Company | Depreciation |
| 223. | 2016 | KY PSC | Case No. 2016-00027 | Louisville Gas and Electric Company | Depreciation |
| 224. | 2016 | OH PUC | Case No. 16-0907-WW-AIR | Aqua Ohio | Depreciation |
| 225. | 2016 | MD PSC | Case 9417 | NiSource - Columbia Gas of Maryland | Depreciation |
| 226. | 2016 | KY PSC | 2016-00162 | Columbia Gas of Kentucky | Depreciation |
| 227. | 2016 | DE PSC | 16-0649 | Delmarva Power and Light Company – Electric | Depreciation |
| 228. | 2016 | DE PSC | 16-0650 | Delmarva Power and Light Company – Gas | Depreciation |
| 229. | 2016 | NY PSC | Case 16-G-0257 | National Fuel Gas Distribution Corp – NY Div | Depreciation |
| 230. | 2016 | PA PUC | R-2016-2537349 | Metropolitan Edison Company | Depreciation |
| 231. | 2016 | PA PUC | R-2016-2537352 | Pennsylvania Electric Company | Depreciation |
| 232. | 2016 | PA PUC | R-2016-2537355 | Pennsylvania Power Company | Depreciation |

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|------|-------------|---------------------|-----------------------------|--|----------------|
| 233. | 2016 | PA PUC | R-2016-2537359 | West Penn Power Company | Depreciation |
| 234. | 2016 | PA PUC | R-2016-2529660 | NiSource - Columbia Gas of PA | Depreciation |
| 235. | 2016 | KY PSC | Case No. 2016-00063 | Kentucky Utilities / Louisville Gas & Electric Co | Depreciation |
| 236. | 2016 | MO PSC | ER-2016-0285 | KCPL Missouri | Depreciation |
| 237. | 2016 | AR PSC | 16-052-U | Oklahoma Gas & Electric Co | Depreciation |
| 238. | 2016 | PSCW | 6680-DU-104 | Wisconsin Power and Light | Depreciation |
| 239. | 2016 | ID PUC | IPC-E-16-23 | Idaho Power Company | Depreciation |
| 240. | 2016 | OR PUC | UM1801 | Idaho Power Company | Depreciation |
| 241. | 2016 | ILL CC | 16- | MidAmerican Energy Company | Depreciation |
| 242. | 2016 | KY PSC | Case No. 2016-00370 | Kentucky Utilities Company | Depreciation |
| 243. | 2016 | KY PSC | Case No. 2016-00371 | Louisville Gas and Electric Company | Depreciation |
| 244. | 2016 | IN URC | Cause No. 45029 | Indianapolis Power & Light | Depreciation |
| 245. | 2016 | AL RC | U-16-081 | Chugach Electric Association | Depreciation |
| 246. | 2017 | MA DPU | D.P.U. 17-05 | NSTAR Electric Company and Western Massachusetts Electric Company | Depreciation |
| 247. | 2017 | TX PUC | PUC-26831, SOAH 973-17-2686 | El Paso Electric Company | Depreciation |
| 248. | 2017 | WA UTC | UE-17033 and UG-170034 | Puget Sound Energy | Depreciation |
| 249. | 2017 | OH PUC | Case No. 17-0032-EL-AIR | Duke Energy Ohio | Depreciation |
| 250. | 2017 | VA SCC | Case No. PUE-2016-00413 | Virginia Natural Gas, Inc. | Depreciation |
| 251. | 2017 | OK CC | Case No. PUD201700151 | Public Service Company of Oklahoma | Depreciation |
| 252. | 2017 | MD PSC | Case No. 9447 | Columbia Gas of Maryland | Depreciation |
| 253. | 2017 | NC UC | Docket No. E-2, Sub 1142 | Duke Energy Progress | Depreciation |
| 254. | 2017 | VA SCC | Case No. PUR-2017-00090 | Dominion Virginia Electric and Power Company | Depreciation |
| 255. | 2017 | FERC | ER17-1162 | MidAmerican Energy Company | Depreciation |
| 256. | 2017 | PA PUC | R-2017-2595853 | Pennsylvania American Water Company | Depreciation |
| 257. | 2017 | OR PUC | UM1809 | Portland General Electric | Depreciation |
| 258. | 2017 | FERC | ER17-217-000 | Jersey Central Power & Light | Depreciation |
| 259. | 2017 | FERC | ER17-211-000 | Mid-Atlantic Interstate Transmission, LLC | Depreciation |
| 260. | 2017 | MN PUC | Docket No. G007/D-17-442 | Minnesota Energy Resources Corporation | Depreciation |
| 261. | 2017 | IL CC | Docket No. 17-0124 | Northern Illinois Gas Company | Depreciation |
| 262. | 2017 | OR PUC | UM1808 | Northwest Natural Gas Company | Depreciation |
| 263. | 2017 | NY PSC | Case No. 17-W-0528 | SUEZ Water Owego-Nichols | Depreciation |
| 264. | 2017 | MO PSC | GR-2017-0215 | Laclede Gas Company | Depreciation |
| 265. | 2017 | MO PSC | GR-2017-0216 | Missouri Gas Energy | Depreciation |

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|------|-------------|---------------------|---------------------------|---|----------------|
| 266. | 2017 | ILL CC | Docket No. 17-0337 | Illinois-American Water Company | Depreciation |
| 267. | 2017 | FERC | Docket No. ER18-22-000 | PPL Electric Utilities Corporation | Depreciation |
| 268. | 2017 | IN URC | Cause No. 44988 | Northern Indiana Public Service Company | Depreciation |
| 269. | 2017 | NJ BPU | BPU Docket No. WR17090985 | New Jersey American Water Company, Inc. | Depreciation |
| 270. | 2017 | RI PUC | Docket No. 4800 | SUEZ Water Rhode Island | Depreciation |
| 271. | 2017 | OK CC | Cause No. PUD 201700496 | Oklahoma Gas and Electric Company | Depreciation |
| 272. | 2017 | NJ BPU | ER18010029 & GR18010030 | Public Service Electric and Gas Company | Depreciation |
| 273. | 2017 | NC Util Com. | Docket No. E-7, SUB 1146 | Duke Energy Carolinas, LLC | Depreciation |
| 274. | 2017 | KY PSC | Case No. 2017-00321 | Duke Energy Kentucky, Inc. | Depreciation |
| 275. | 2017 | MA DPU | D.P.U. 18-40 | Berkshire Gas Company | Depreciation |
| 276. | 2018 | IN IURC | Cause No. 44992 | Indiana-American Water Company, Inc. | Depreciation |
| 277. | 2018 | IN IURC | Cause No. 45029 | Indianapolis Power and Light | Depreciation |
| 278. | 2018 | NC Util Com. | Docket No. W-218, Sub 497 | Aqua North Carolina, Inc. | Depreciation |
| 279. | 2018 | PA PUC | Docket No. R-2018-2647577 | NiSource - Columbia Gas of Pennsylvania, Inc. | Depreciation |
| 280. | 2018 | OR PUC | Docket UM 1933 | Avista Corporation | Depreciation |
| 281. | 2018 | WA UTC | Docket No. UE-108167 | Avista Corporation | Depreciation |
| 282. | 2018 | ID PUC | AVU-E-18-03, AVU-G-18-02 | Avista Corporation | Depreciation |
| 283. | 2018 | IN URC | Cause No. 45039 | Citizens Energy Group | Depreciation |
| 284. | 2018 | FERC | Docket No. ER18- | Duke Energy Progress | Depreciation |
| 285. | 2018 | PA PUC | Docket No. R-2018-3000124 | Duquesne Light Company | Depreciation |
| 286. | 2018 | MD PSC | Case No. 948 | NiSource - Columbia Gas of Maryland | Depreciation |
| 287. | 2018 | MA DPU | D.P.U. 18-45 | NiSource - Columbia Gas of Massachusetts | Depreciation |
| 288. | 2018 | OH PUC | Case No. 18-0299-GA-ALT | Vectren Energy Delivery of Ohio | Depreciation |
| 289. | 2018 | PA PUC | Docket No. R-2018-3000834 | SUEZ Water Pennsylvania Inc. | Depreciation |
| 290. | 2018 | MD PSC | Case No. 9847 | Maryland-American Water Company | Depreciation |
| 291. | 2018 | PA PUC | Docket No. R-2018-3000019 | The York Water Company | Depreciation |
| 292. | 2018 | FERC | ER-18-2231-000 | Duke Energy Carolinas, LLC | Depreciation |
| 293. | 2018 | KY PSC | Case No. 2018-00261 | Duke Energy Kentucky, Inc. | Depreciation |
| 294. | 2018 | NJ BPU | BPU Docket No. WR18050593 | SUEZ Water New Jersey | Depreciation |
| 295. | 2018 | WA UTC | Docket No. UE-180778 | PacifiCorp | Depreciation |
| 296. | 2018 | UT PSC | Docket No. 18-035-36 | PacifiCorp | Depreciation |
| 297. | 2018 | OR PUC | Docket No. UM-1968 | PacifiCorp | Depreciation |
| 298. | 2018 | ID PUC | Case No. PAC-E-18-08 | PacifiCorp | Depreciation |
| 299. | 2018 | WY PSC | 20000-539-EA-18 | PacifiCorp | Depreciation |
| 300. | 2018 | PA PUC | Docket No. R-2018-3003068 | Aqua Pennsylvania, Inc. | Depreciation |

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|------|-------------|---------------------|--------------------------------|---|----------------|
| 301. | 2018 | IL CC | Docket No. 18-1467 | Aqua Illinois, Inc. | Depreciation |
| 302. | 2018 | KY PSC | Case No. 2018-00294 | Louisville Gas & Electric Company | Depreciation |
| 303. | 2018 | KY PSC | Case No. 2018-00295 | Kentucky Utilities Company | Depreciation |
| 304. | 2018 | IN URC | Cause No. 45159 | Northern Indiana Public Service Company | Depreciation |
| 305. | 2018 | VA SCC | Case No. PUR-2019-00175 | Virginia American Water Company | Depreciation |
| 306. | 2019 | PA PUC | Docket No. R-2018-3006818 | Peoples Natural Gas Company, LLC | Depreciation |
| 307. | 2019 | OK CC | Cause No. PUD201800140 | Oklahoma Gas and Electric Company | Depreciation |
| 308. | 2019 | MD PSC | Case No. 9490 | FirstEnergy – Potomac Edison | Depreciation |
| 309. | 2019 | SC PSC | Docket No. 2018-318-E | Duke Energy Progress | Depreciation |
| 310. | 2019 | SC PSC | Docket No. 2018-319-E | Duke Energy Carolinas | Depreciation |
| 311. | 2019 | DE PSC | DE 19-057 | Public Service of New Hampshire | Depreciation |
| 312. | 2019 | NY PSC | Case No. 19-W-0168 & 19-W-0269 | SUEZ Water New York | Depreciation |
| 313. | 2019 | PA PUC | Docket No. R-2019-3006904 | Newtown Artesian Water Company | Depreciation |
| 314. | 2019 | MO PSC | ER-2019-0335 | Ameren Missouri | Depreciation |
| 315. | 2019 | MO PSC | EC-2019-0200 | KCP&L Greater Missouri Operations Company | Depreciation |
| 316. | 2019 | MN DOC | G011/D-19-377 | Minnesota Energy Resource Corp. | Depreciation |
| 317. | 2019 | NY PSC | Case 19-E-0378 & 19-G-0379 | New York State Electric and Gas Corporation | Depreciation |
| 318. | 2019 | NY PSC | Case 19-E-0380 & 19-G-0381 | Rochester Gas and Electric Corporation | Depreciation |
| 319. | 2019 | WA UTC | Docket UE-190529 / UG-190530 | Puget Sound Energy | Depreciation |
| 320. | 2019 | PA PUC | Docket No. R-2019-3010955 | City of Lancaster | Depreciation |
| 321. | 2019 | IURC | Cause No. 45253 | Duke Energy Indiana | Depreciation |
| 322. | 2019 | KY PSC | Case No. 2019-00271 | Duke Energy Kentucky, Inc. | Depreciation |
| 323. | 2019 | OH PUC | Case No. 18-1720-GA-AIR | Northeast Ohio Natural Gas Corp | Depreciation |
| 324. | 2019 | NC Util. Com. | Docket No. E-2, Sub 1219 | Duke Energy Carolinas | Depreciation |
| 325. | 2019 | FERC | Docket No. ER20-277-000 | Jersey Central Power & Light Company | Depreciation |
| 326. | 2019 | MA DPU | D.P.U. 19-120 | NSTAR Gas Company | Depreciation |
| 327. | 2019 | SC PSC | Docket No. 2019-290-WS | Blue Granite Water Company | Depreciation |
| 328. | 2019 | NC Util. Com. | Docket No. E-2, Sub 1219 | Duke Energy Progress | Depreciation |
| 329. | 2019 | MD PSC | Case No. 9609 | NiSource Columbia Gas of Maryland, Inc. | Depreciation |
| 330. | 2020 | NJ BPU | Docket No. ER20020146 | Jersey Central Power & Light Company | Depreciation |
| 331. | 2020 | PA PUC | Docket No. R-2020-3018835 | NiSource - Columbia Gas of Pennsylvania, Inc. | Depreciation |
| 332. | 2020 | PA PUC | Docket No. R-2020-3019369 | Pennsylvania-American Water Company | Depreciation |
| 333. | 2020 | PA PUC | Docket No. R-2020-3019371 | Pennsylvania-American Water Company | Depreciation |
| 334. | 2020 | MO PSC | GO-2018-0309, GO-2018-0310 | Spire Missouri, Inc. | Depreciation |
| 335. | 2020 | NM PRC | Case No. 20-00104-UT | El Paso Electric Company | Depreciation |
| 336. | 2020 | MD PSC | Case No. 9644 | Columbia Gas of Maryland, Inc. | Depreciation |
| 337. | 2020 | MO PSC | GO-2018-0309, GO-2018-0310 | Spire Missouri, Inc. | Depreciation |
| 338. | 2020 | VA St CC | Case No. PUR-2020-00095 | Virginia Natural Gas Company | Depreciation |

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|------|-------------|---------------------|--|--|----------------|
| 339. | 2020 | SC PSC | Docket No. 2020-125-E | Dominion Energy South Carolina, Inc. | Depreciation |
| 340. | 2020 | WV PSC | Case No. 20-0745-G-D | Hope Gas, Inc. d/b/a Dominion Energy West Virginia | Depreciation |
| 341. | 2020 | VA St CC | Case No. PUR-2020-00106 | Aqua Virginia, Inc. | Depreciation |
| 342. | 2020 | PA PUC | Docket No. R-2020-3020256 | City of Bethlehem – Bureau of Water | Depreciation |
| 343. | 2020 | NE PSC | Docket No. NG-109 | Black Hills Nebraska | Depreciation |
| 344. | 2020 | NY PSC | Case No. 20-E-0428 & 20-G-0429 | Central Hudson Gas & Electric Corporation | Depreciation |
| 345. | 2020 | FERC | ER20-598 | Duke Energy Indiana | Depreciation |
| 346. | 2020 | FERC | ER20-855 | Northern Indiana Public Service Company | Depreciation |
| 347. | 2020 | OR PSC | UE 374 | Pacificorp | Depreciation |
| 348. | 2020 | MD PSC | Case No. 9490 Phase II | Potomac Edison – Maryland | Depreciation |
| 349. | 2020 | IN URC | Case No. 45447 | Southern Indiana Gas and Electric Company | Depreciation |
| 350. | 2020 | IN URC | IURC Cause No. 45468 | Indiana Gas Company, Inc. d/b/a Vectren Energy | Depreciation |
| 351. | 2020 | KY PSC | Case No. 2020-00349 | Kentucky Utilities Company | Depreciation |
| 352. | 2020 | KY PSC | Case No. 2020-00350 | Louisville Gas and Electric Company | Depreciation |
| 353. | 2020 | FERC | Docket No. ER21- 000 | South FirstEnergy Operating Companies | Depreciation |
| 354. | 2020 | OH PUC | Case Nos 20-1651-EL-AIR, 20-1652-EL-AAM & 20-1653-EL-ATA | Dayton Power and Light Company | Depreciation |
| 355. | 2020 | OR PSC | UG 388 | Northwest Natural Gas Company | Depreciation |
| 356. | 2020 | MO PSC | Case No. GR-2021-0241 | Ameren Missouri Gas | Depreciation |
| 357. | 2021 | KY PSC | Case No. 2021-00103 | East Kentucky Power Cooperative | Depreciation |
| 358. | 2021 | MPUC | Docket No. 2021-00024 | Bangor Natural Gas | Depreciation |
| 359. | 2021 | PA PUC | Docket No. R-2021-3024296 | Columbia Gas of Pennsylvania, Inc. | Depreciation |
| 360. | 2021 | NC Util. Com. | Doc. No. G-5, Sub 632 | Public Service of North Carolina | Depreciation |
| 361. | 2021 | MO PSC | ER-2021-0240 | Ameren Missouri | Depreciation |
| 362. | 2021 | PA PUC | Docket No. R-2021-3024750 | Duquesne Light Company | Depreciation |
| 363. | 2021 | KS PSC | 21-BHCG-418-RTS | Black Hills Kansas Gas | Depreciation |
| 364. | 2021 | KY PSC | Case No. 2021-00190 | Duke Energy Kentucky | Depreciation |
| 365. | 2021 | OR PSC | Docket UM 2152 | Portland General Electric | Depreciation |
| 366. | 2021 | ILL CC | Docket No. 20-0810 | North Shore Gas Company | Depreciation |
| 367. | 2021 | FERC | ER21-1939-000 | Duke Energy Progress | Depreciation |
| 368. | 2021 | FERC | ER21-1940-000 | Duke Energy Carolina | Depreciation |
| 369. | 2021 | KY PSC | Case No. 2021-00183 | NiSource Columbia Gas of Kentucky | Depreciation |
| 370. | 2021 | MD PSC | Case No. 9664 | NiSource Columbia Gas of Maryland | Depreciation |
| 371. | 2021 | OH PUC | Case No. 21-0596-ST-AIR | Aqua Ohio | Depreciation |
| 372. | 2021 | PA PUC | Docket No. R-2021-3026116 | Hanover Borough Municipal Water Works | Depreciation |
| 373. | 2021 | OR PSC | UM-2180 | Idaho Power Company | Depreciation |
| 374. | 2021 | ID PUC | Case No. IPC-E-21-18 | Idaho Power Company | Depreciation |
| 375. | 2021 | WPSC | 6690-DU-104 | Wisconsin Public Service Company | Depreciation |

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

| | <u>Year</u> | <u>Jurisdiction</u> | <u>Docket No.</u> | <u>Client Utility</u> | <u>Subject</u> |
|------|-------------|---------------------|---|---|----------------|
| 376. | 2021 | PAPUC | Docket No. R-2021-3026116 | Borough of Hanover | Depreciation |
| 377. | 2021 | OH PUC | Case No. 21-637-GA-AIR; Case No. 21-638-GA-ALT; Case No. 21-639-GA-UNC; Case No. 21-640-GA-AAM | NiSource Columbia Gas of Ohio | Depreciation |
| 378. | 2021 | TX PUC | Texas PUC Docket No. 52195; SOHA Docket No. 473-21-2606 | El Paso Electric | Depreciation |
| 379. | 2021 | MO PSC | Case No. GR.2021-0108 | Spire Missouri | Depreciation |
| 380. | 2021 | WV PSC | Case No. 21-0215-WS-P | West Virginia American Water Company | Depreciation |
| 381. | 2021 | FERC | ER21-2736 | Duke Energy Carolinas | Depreciation |
| 382. | 2021 | FERC | ER21-2737 | Duke Energy Progress | Depreciation |
| 383. | 2021 | IN URC | Cause #45621 | Northern Indiana Public Service Company | Depreciation |
| 384. | 2021 | PA PUC | Docket No. R-2021-3026682 | City of Lancaster | Depreciation |

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

In the Matter of Union Electric Company)
d/b/a Ameren Missouri’s Tariffs to Adjust)
Its Revenues for Gas Service.)

Case No. GR-2021-0241

AFFIDAVIT OF JOHN SPANOS

COMMONWEALTH OF PENNSYLVANIA)
) ss
COUNTY OF CUMBERLAND)

John Spanos, being first duly sworn on his oath, states:

My name is John Spanos, and on his oath declare that he is of sound mind and lawful age; that he has prepared the foregoing *Rebuttal Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.



John Spanos

Sworn to me this 14th day of October, 2021.