

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Northeast Ohio)	
Natural Gas Corp. for an Increase in Gas)	Case No. 18-1720-GA-AIR
Distribution Rates)	
)	
In the Matter of the Application of Northeast Ohio)	Case No. 18-1721-GA-ATA
Natural Gas Corp. for Tariff Approval)	
)	
In the Matter of the Application of Northeast Ohio)	Case No. 18-1722-GA-ALT
Natural Gas Corp. for Approval of Alternative)	
Regulation)	

**DIRECT TESTIMONY
OF
JOHN SPANOS**

**ON BEHALF OF
NORTHEAST OHIO NATURAL GAS CORP.**

<u> </u>	Management Policies, Practices, and Organization
<u> </u>	Operating Income
<u> </u>	Rate Base
<u> </u>	Allocations
<u> </u>	Rate of Return
<u> </u>	Rates and Tariffs
<u> X </u>	Other

JULY 25, 2019

TABLE OF CONTENTS

	Page
I. <u>INTRODUCTION, BACKGROUND, AND EXPERIENCE</u>	3
II. <u>PURPOSE OF TESTIMONY</u>	3
III. <u>DEPRECIATION OVERVIEW</u>	4
IV. <u>STAFF’S DEPRECIATION RATE PROPOSAL</u>	6
V. <u>STAFF’S THEORETICAL RESERVE CALCULATION</u>	10
VI. <u>STAFF’S PROPOSED AMORTIZATION PERIOD FOR THE THEORETICAL RESERVE IMBALANCE</u>	14
VII. <u>RECOMMENDATION</u>	17

1 **I. INTRODUCTION, BACKGROUND, AND EXPERIENCE**

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

3 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp
4 Hill, Pennsylvania 17011.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am the President of Gannett Fleming Valuation and Rate Consultants, LLC
7 (“Gannett Fleming”). I have been employed by or associated with Gannett
8 Fleming since June 1986.

9 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

10 A. I am testifying on behalf of Northeast Ohio Natural Gas Corp. (“NEO”).

11 **Q. PLEASE STATE YOUR QUALIFICATIONS.**

12 A. I have over 33 years of depreciation experience, which includes giving expert
13 testimony in over 300 cases before 40 regulatory commissions in the United
14 States and Canada, including this Commission. I have provided expert testimony
15 concerning depreciation studies in the electric, gas, water, wastewater and
16 pipeline industries. In addition to the cases where I have provided expert
17 testimony, I have supervised over 600 other depreciation or valuation
18 assignments. Please refer to Appendix A for additional information on my
19 qualifications, which includes further information with respect to my work
20 history, case experience, and my leadership in the Society of Depreciation
21 Professionals.

22 **II. PURPOSE OF TESTIMONY**

23 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

1 A. My testimony responds to the depreciation-related proposals in the Staff Report.
2 In my professional opinion, it is premature to change the depreciation rates as
3 proposed by Staff, especially considering the sheer magnitude of Staff's proposed
4 change. Rather than basing the depreciation rates and expense on a detailed study
5 that incorporates NEO's historical data, Staff's depreciation proposals are, for
6 most accounts, based on the midpoint of the average service life and net salvage
7 estimates of only two other Ohio companies, and, for some accounts, an estimate
8 of only one company. Not only is Staff's proposal based on an unnecessarily
9 limited, non-representative sample, Staff places significant and disproportionate
10 weight on atypical data to determine NEO's estimates. Furthermore, there is no
11 indication that Staff even reviewed the reasonableness of the specific estimates
12 for either company. Accordingly, Staff's proposal is unreasonable and should be
13 rejected by the Commission.

14 A more reasonable approach would be to continue using current
15 depreciation rates until a proper, comprehensive depreciation study can be
16 conducted at a future date. Nevertheless, if the Commission were to change
17 depreciation rates, the Commission must, at a minimum, reject Staff's proposed
18 amortization of its calculated theoretical reserve imbalance, as well as Staff's
19 proposal to address this imbalance over ten years, because these proposals are
20 fundamentally flawed, inaccurate, and unreasonable as explained more fully
21 below.

22 **III. DEPRECIATION OVERVIEW**

23 **Q. WHAT IS DEPRECIATION?**

1 A. The Federal Energy Regulatory Commission's Uniform System of Accounts
2 Prescribed for Public Utilities and Licensees Subject to the Provisions of the
3 Federal Power Act defines depreciation as follows:

4 Depreciation, as applied to depreciable gas plant, means the
5 loss in service value not restored by current maintenance,
6 incurred in connection with the consumption or prospective
7 retirement of gas plant in the course of service from causes
8 which are known to be in current operation and against
9 which the utility is not protected by insurance. Among the
10 causes to be given consideration are wear and tear, decay,
11 action of the elements, inadequacy, obsolescence, changes
12 in the art, changes in demand and requirements of public
13 authorities, and, in the case of natural gas companies, the
14 exhaustion of natural resources.¹

15 **Q. HOW IS DEPRECIATION DETERMINED?**

16 A. Depreciation is typically determined by performing a comprehensive depreciation
17 study of a company's assets. A depreciation study is a process that incorporates
18 analysis of historical data, as well as other factors, in the estimates of two primary
19 parameters: 1) the service life (estimated with an average service life and survivor
20 curve²); and 2) net salvage percentage. Based on these parameters, depreciation
21 rates are calculated. If the whole life technique³ is used, as has typically been the
22 case in Ohio, then the theoretical reserve (defined below) is also calculated to
23 determine if any prospective adjustments to depreciation are appropriate.

¹ 18 C.F.R. § 201, Definition 12B.

² A survivor curve is a curve showing the percentage of a group of assets surviving at a given age.

³ For the whole life technique, depreciation rates are calculated as (100% - Net Salvage %) / Average Service Life if the average service life procedure is used. This contrasts with the remaining life technique, which incorporates the current level of accumulated depreciation into the depreciation rate formula and allocates the unrecovered costs (original cost less net salvage less accumulated depreciation) over the remaining life of an account.

1 **Q. DID YOU PREPARE A DEPRECIATION STUDY FOR THIS**
2 **PROCEEDING?**

3 A. No. While I describe numerous flaws with Staff's depreciation-related proposals
4 and recommend that the Commission reject these proposals, I have not developed
5 a formal recommendation on the depreciation rates that would result from an
6 updated depreciation study. A depreciation study typically takes many months to
7 complete and involves extensive statistical analysis, as well as site visits and
8 interviews with company personnel with knowledge of and responsibility for the
9 operation of the company's gas system. I have not been able to perform these
10 tasks and, therefore, do not have specific depreciation rates to recommend.

11 **IV. STAFF'S DEPRECIATION RATE PROPOSAL**

12 **Q. WHAT HAS STAFF PROPOSED WITH RESPECT TO NEO'S**
13 **DEPRECIATION RATES?**

14 A. Staff has proposed average service life and net salvage estimates for each plant
15 account. Based on these parameters, Staff has also calculated a theoretical reserve
16 and recommends the difference between the theoretical reserve and the book
17 reserve be amortized over a ten-year period.⁴ Staff's recommended depreciation
18 rates result in a decrease in depreciation expense of \$480,463.⁵ Moreover, Staff's

⁴ See Staff Report, p. 10; *see also* Schedules B-3 through B-3.2, C-3.10.

⁵ See Staff Report at Schedule C-2. Staff's total adjustment for Depreciation & Amortization is \$1,179,849, which includes the \$699,386 reserve amortization shown on page 3 of Schedule B-3.2 of the Staff Report. The different between these two amounts is the change due to Staff's proposed changes to depreciation rates.

1 proposal for the theoretical reserve imbalance results in an additional annual
2 decrease of \$699,386.⁶

3 **Q. IN YOUR PROFESSIONAL JUDGMENT, ARE STAFF'S**
4 **DEPRECIATION-RELATED PROPOSALS REASONABLE?**

5 A. No. I have reviewed both components of Staff's proposal (i.e., depreciation rates
6 and the theoretical reserve imbalance), and, based on my review, there are
7 fundamental problems with each. Staff's recommended depreciation parameters
8 and rates are, for most accounts, based only on the estimates made by Staff for
9 two other companies. Staff should have used more than two companies for
10 purposes of constructing a meaningful and statistically valid sample. Not only
11 that, as discussed in more detail below, some of the estimates for these two
12 companies are atypical. As a result, with its basis of a limited and non-
13 representative sample of only two companies, Staff's underlying analysis and
14 overall recommendation accord too much weight to atypical parameters.

15 Moreover, as I will explain in detail, there are numerous computational
16 and conceptual problems with Staff's theoretical reserve calculations.
17 Accordingly, there is considerable uncertainty regarding Staff's recommended
18 theoretical reserve amount. Further, Staff proposes to amortize its theoretical
19 reserve imbalance over a relatively short period of time. The result is an abrupt
20 and significant decrease in depreciation that lacks factual and substantial support.

⁶ *Id.* at Schedule B-3.2.

1 **Q. WHAT PROBLEMS HAVE YOU IDENTIFIED CONCERNING STAFF’S**
2 **PROPOSED DEPRECIATION RATES?**

3 A. First, Staff’s proposals are not based on NEO’s historical data, but instead are
4 based on the estimates of other utilities. Although Staff may have relatively
5 limited data available to analyze, under such circumstances, Staff should have
6 incorporated other factors, such as estimates of additional utilities, field trips, and
7 other NEO specific information. Unfortunately, Staff’s proposals for most
8 accounts are simply calculated by taking the average of the depreciation
9 parameters from two other utilities – i.e., Suburban Natural Gas Company
10 (“Suburban”) and Ohio Gas Company (“Ohio Gas”). Further, for production
11 accounts, Staff exclusively relies on the estimates of only one utility, i.e.,
12 Dominion Energy Ohio.

13 **Q. WHAT PROBLEMS ARISE FROM BASING ESTIMATES ON ONLY**
14 **TWO COMPANIES FOR MOST ACCOUNTS?**

15 A. There are a number of problems that arise from Staff’s flawed approach. First,
16 Staff did not incorporate any information specific to NEO. While NEO’s existing
17 depreciation rates are not based on a current depreciation study,⁷ they are based
18 on the rates approved by this Commission and these rates still provide relevant
19 information about NEO. Staff’s approach appears to ignore NEO’s current
20 depreciation parameters. Without any evidence that any NEO-specific

⁷ NEO’s current depreciation accrual rates were established by the Commission in Case Nos. 03-2170-GA-AIR (NEO); 03-1913-GA-AAM (Orwell) and 04-1719-GA-AAM (Brainard). *See* Staff Report, p. 10.

1 information was incorporated into Staff's recommended depreciation parameters,
2 Staff's approach is inappropriate and fundamentally flawed.

3 Second, relying on information from a sample size of only two companies
4 to calculate service life and net salvage estimates is insufficient and problematic.
5 Relying on only two companies means that any atypical estimates for either
6 company are given significant and disproportionate weight (50%) in determining
7 NEO's estimates. Staff's average service lives and net salvage were determined
8 by taking simple averages of the estimates of only two companies. More
9 worryingly, there is no indication that Staff even reviewed the reasonableness of
10 the specific estimates for either company, even though some estimates may vary
11 widely.

12 Furthermore, in relying on data from Suburban, Staff used the rates and
13 estimates it proposed in Suburban's pending application for a rate increase, not a
14 Commission-approved rate.

15 Third, Staff has not recommended Iowa survivor curve types for its
16 service life estimates. Utility property typically experiences a dispersion of
17 retirements, meaning that groups of utility property experience ranges of lives
18 (i.e., some assets are retired before the average service life and some are retired
19 later). To measure this dispersion of service lives, Iowa survivor curves are
20 almost universally used in depreciation studies because these curves provide a
21 standard basis to measure the percentage of property expected to survive to each
22 age. Instead of using Iowa survivor curve types, Staff appears to incorrectly base

1 its calculations on the incorrect assumption that all assets in an account will have
2 a life equal to the average service life.

3 Finally, some of the individual estimates used in Staff's analysis are
4 flawed. Most obviously, Ohio Gas has a net salvage estimate of zero for
5 Accounts 367 and 376, Mains, which is not reasonable. Typically, there is cost of
6 removal for mains, even if mains are abandoned in place. There is work required
7 to purge the gas and cut and cap each end of the main upon retirement. Because
8 there is typically cost of removal (and no gross salvage) when mains are retired,
9 most utilities have a negative net salvage estimate for gas mains. However,
10 because Ohio Gas has zero net salvage, Staff's approach gives this atypical
11 estimate 50% of the weighting in its calculation. What is more, similar problems
12 arise for many other accounts.

13 **V. STAFF'S THEORETICAL RESERVE CALCULATION**

14 **Q. WHAT IS THE THEORETICAL RESERVE?**

15 A. The theoretical reserve is an estimate of the accumulated depreciation based on
16 the current plant balances and depreciation parameters (service life and net
17 salvage estimates) at a specific point in time. The theoretical reserve is equal to
18 the portion of the depreciable cost of plant that will not be allocated to expense
19 through future whole life depreciation accruals based on the current forecasts of
20 service life and net salvage. The theoretical reserve is also referred to as the
21 Calculated Accrued Depreciation ("CAD"). Importantly, the theoretical reserve is
22 a prospective calculation based on the expected future experience of a company's
23 assets.

1 **Q. WHAT IS THE THEORETICAL RESERVE IMBALANCE?**

2 A. A theoretical reserve imbalance (“TRI” or “imbalance”) is calculated as the
3 difference between a company’s book accumulated depreciation, or book reserve,
4 and the calculated accrued depreciation, or theoretical reserve.

5 **Q. HOW IS THE THEORETICAL RESERVE CALCULATED?**

6 A. The theoretical reserve is a calculation at a given point in time and is a function of
7 three primary inputs: 1) the survivor curve estimate; 2) the net salvage estimate;
8 and 3) the age distribution of a company’s current plant in service balances. The
9 calculation is performed for each vintage of plant for each depreciable group and
10 is calculated by applying the Calculated Accrued Depreciation Ratio (“CADR”)
11 to the original cost less net salvage for the vintage. The CADR is calculated as $1 - \frac{RL}{ASL}$, where “RL” is the remaining life and “ASL” is the average service
12 life. Both the remaining life and average service life are calculated from the
13 estimated survivor curve. Given the nature of the theoretical reserve calculations,
14 a change to any of these three components will impact the calculations. Further,
15 the theoretical reserve imbalance will change each time a study is performed due
16 to actual activity that occurs over time.

18 **Q. DO YOU AGREE WITH STAFF’S THEORETICAL RESERVE**
19 **CALCULATIONS?**

20 A. No. There are multiple issues with the calculations of the theoretical reserve
21 provided by Staff. As a result, in the aggregate, Staff’s calculations are unreliable
22 and should not be used as the basis for any adjustment to depreciation.

1 **Q. HAVE YOU IDENTIFIED ISSUES WITH ANY OF THESE**
2 **COMPONENTS OF STAFF'S CALCULATIONS?**

3 A. Yes. As discussed previously, I have concerns with the estimated service life and
4 net salvage estimates based on the overall approach used by Staff to estimate
5 these parameters. These issues will also affect the theoretical reserve
6 calculations. For example, a more negative net salvage estimate for Accounts 367
7 and 376 would increase the calculated theoretical reserve, resulting in a
8 corresponding decrease to the reserve imbalance. To make matters even worse,
9 there are also multiple problems with the vintage balances used in Staff's
10 calculations.

11 **Q. WHY IS STAFF'S USE OF VINTAGE BALANCES IN ITS**
12 **CALCULATIONS PROBLEMATIC?**

13 A. First, while Staff proposes certain adjustments to NEO's plant in service balances,
14 Staff does not incorporate these adjustments into its theoretical reserve
15 calculations. Because the theoretical reserve is a prospective calculation, it
16 should be based on the balances and depreciation expectations going forward.
17 Thus, Staff erred by failing to incorporate plant adjustments into its theoretical
18 reserve calculations.

19 Of the adjustments made by Staff, the one with the most significant impact
20 is Staff's proposal to move software assets from Account 391, Office Furniture
21 and Equipment, which has a 20-year life, to Account 303, Miscellaneous
22 Intangible Plant, which has a 10-year life. Because Staff expects these assets to
23 have a 10-year life, not a 20-year life, Staff's theoretical reserve calculations

1 should be based on the adjusted data that assigns a 10-year life to software.
2 However, Staff failed to do so, thereby understating the theoretical reserve and
3 overstating the theoretical reserve imbalance.

4 **Q. HAVE YOU QUANTIFIED THE IMPACT OF THIS MISTAKE ON**
5 **STAFF’S CALCULATIONS?**

6 A. Yes. Correcting Staff’s mistake reduces the theoretical reserve imbalance by
7 approximately \$926,000.⁸

8 **Q. ARE THERE ANY OTHER PROBLEMS WITH STAFF’S**
9 **CALCULATIONS?**

10 A. Yes. Staff failed to make certain adjustments necessary to ensure a reasonable
11 theoretical reserve calculation. When performing a depreciation study, it is
12 important to review the data in detail to ensure that it is reflective of both the
13 experience of the assets and the outlook for a company’s property. In some
14 instances, the data needs to be adjusted in order to assure that it is appropriate to
15 be used in depreciation calculations. Although Staff made some adjustments to
16 NEO’s data, Staff failed to make other adjustments that are necessary to ensure a
17 reasonable theoretical reserve calculation.

18 For example, NEO’s asset base includes assets that have been acquired
19 from other companies over the years. Specifically, a portion of NEO’s system
20 was acquired from Columbia Gas of Ohio Inc. (“Columbia”). While many of
21 these assets are decades old, they are reflected on NEO’s books (and in Staff’s

⁸ See Column 15 of Exhibit JJS-2.

1 calculations) as vintage 2008, the year they were purchased. Staff has used this
2 vintage as the vintage year for these assets in the theoretical reserve calculations.
3 As a result, Staff's calculations understate the age of certain NEO assets and thus,
4 overstate the remaining life of those assets, meaning that Staff calculates a
5 theoretical reserve for these assets that is far too low.

6 **Q. HAVE YOU ESTIMATED THE IMPACT OF THIS PROBLEM ON**
7 **STAFF'S CALCULATIONS?**

8 A. Yes. Based on information provided by NEO, I have estimated the vintage
9 balances for the former Columbia assets, and estimate that the impact on the
10 theoretical reserve is approximately \$3.1 million.⁹

11 **Q. ARE THERE OTHER PROBLEMS WITH STAFF'S CALCULATIONS?**

12 A. Yes. In addition to the problems discussed above and the concerns about Staff's
13 proposed depreciation parameters, there are problems related to Staff's book
14 reserve adjustments and vintage issues for other assets (e.g., NEO's production
15 assets and its pipeline acquired from Spelman). In sum, the theoretical reserve
16 and TRI that Staff calculated is fundamentally flawed and inaccurate.

17 **VI. STAFF'S PROPOSED AMORTIZATION PERIOD FOR THE**
18 **THEORETICAL RESERVE IMBALANCE**

19 **Q. WHAT HAS STAFF PROPOSED FOR ITS CALCULATED**
20 **THEORETICAL RESERVE IMBALANCE?**

⁹ See Column 10 of Exhibit JJS-2.

1 A. Staff proposes to amortize its calculated theoretical reserve imbalance over ten
2 years.¹⁰ Staff's calculated TRI is \$6,993,858; therefore, Staff's proposed
3 amortization results in a reduction to depreciation expense of \$699,386 per year.¹¹

4 I understand Staff believes that an amortization of TRI in Ohio is typically
5 performed when the TRI is greater than 5% of a company's original cost and that
6 ten years is a typical amortization period.

7 **Q. DO YOU AGREE WITH STAFF'S PROPOSAL REGARDING THE**
8 **THEORETICAL RESERVE IMBALANCE?**

9 A. No. I disagree both with the appropriateness of making an adjustment based on
10 the Staff's theoretical reserve and with the time period over which Staff proposes
11 this adjustment.

12 **Q. WHY DO YOU DISAGREE WITH STAFF'S PROPOSAL TO AMORTIZE**
13 **ITS CALCULATED THEORETICAL RESERVE IMBALANCE?**

14 A. First, as I previously explained, there are a number of questionable issues with
15 Staff's calculation of the theoretical reserve, which (among other things) results in
16 Staff's recommendation to impose a significant decrease in depreciation expense.
17 As such, it is inappropriate to make such a substantial change in the depreciation
18 reserve or expense based on calculations that are, at best, uncertain.

19 As noted above, the errors I have identified by Staff in this testimony
20 would reduce Staff's calculated theoretical reserve imbalance by a combined

¹⁰ Staff Report, p. 10.

¹¹ *Id.*; see also Schedule B-3.2

1 amount of approximately \$4 million. Staff's calculated imbalance of almost \$7
2 million is approximately 9% of NEO's investment base. However, reducing this
3 amount by \$4 million would result in an imbalance of only 4% of NEO's plant
4 balance, which is less than the 5% threshold upon which Staff appears to have
5 concluded that an amortization was necessary. This further buttresses my opinion
6 that an amortization of the theoretical reserve imbalance is unreasonable at this
7 point in time.

8 **Q. ARE YOU FAMILIAR WITH OTHER CASES IN OHIO WHICH DID**
9 **NOT RESULT IN AN AMORTIZATION OF THE THEORETICAL**
10 **RESERVE IMBALANCE?**

11 A. Yes. I have performed a number of depreciation studies in Ohio, most of which
12 did not result in an amortization of the theoretical reserve imbalance. Here, there
13 should also be no amortization of the theoretical reserve imbalance.

14 **Q. IF AN ADJUSTMENT BASED ON THE TRI WERE TO BE MADE, DO**
15 **YOU AGREE WITH STAFF'S PROPOSED AMORTIZATION PERIOD?**

16 A. No. Among other reasons, the considerable uncertainty with regard to the
17 theoretical reserve imbalance means that a ten-year amortization period is far too
18 short of a time period to address any reserve imbalance.

19 **Q. IN THE UTILITY INDUSTRY, IS A TEN-YEAR PERIOD THE MOST**
20 **COMMON PERIOD OF TIME USED TO ADDRESS RESERVE**
21 **IMBALANCES?**

22 A. No. While I understand that Staff believes that a ten-year period is the most
23 common one used in Ohio, I have personally conducted many studies where there

1 was no amortization of any reserve imbalance. In fact, based on my professional
2 experience, it is fairly uncommon in the utility industry to use a ten-year
3 amortization period because the vast majority of regulatory jurisdictions use the
4 remaining life technique (in contrast to the whole life technique that has been
5 used in Ohio). When the remaining life technique is used, any reserve imbalance
6 is automatically adjusted over the remaining life of each property group. Thus,
7 the most common period of time used to adjust for any theoretical reserve
8 imbalances is the remaining life of the assets studied.

9 **Q. WHAT WOULD BE THE IMPACT OF USING THE REMAINING LIFE**
10 **AS AN AMORTIZATION PERIOD INSTEAD OF A TEN-YEAR**
11 **AMORTIZATION PERIOD?**

12 A. Using Staff's adjusted balances and proposed service lives, the overall average
13 remaining life for NEO's assets would be just under 25 years. Amortizing the
14 approximately \$7 million theoretical reserve imbalance calculated by Staff over
15 25 years, instead of 10 years, would reduce the amortization proposed by Staff
16 from \$699,386 to \$279,754 – a decrease of over \$400,000. Additionally, as noted
17 previously, Staff did not estimate Iowa curve types, which would have resulted in
18 a longer remaining life, thereby reducing the amortization amount even further.

19 **VII. RECOMMENDATION**

20 **Q. BASED ON YOUR REVIEW OF STAFF'S PROPOSALS, WHAT DO YOU**
21 **RECOMMEND?**

22 A. A comprehensive depreciation study should be performed prior to making any
23 adjustments to NEO's depreciation rates. The numerous problems I have

1 described in this testimony should and would be addressed in a comprehensive
2 depreciation study. Given the uncertainty in the recommended depreciation
3 parameters, rates, and the theoretical reserve imbalance, adopting the drastic and
4 unsupported changes recommended by Staff could create significant challenges in
5 future studies. Given that Staff's proposals create an abrupt and significant
6 change in depreciation expense, a more detailed analysis in a future study could
7 reach a different conclusion that could prove detrimental to ratepayers. For
8 instance, depending on the results of the future depreciation study, Staff's
9 significant reduction in depreciation could potentially be followed by a significant
10 increase in depreciation – an inequitable outcome for ratepayers that could
11 undermine the goal of developing stable rates.

12 Nevertheless, even if the Commission were to conclude that a change in
13 depreciation rates were appropriate, Staff's proposal for the theoretical reserve
14 imbalance should be rejected. There is far too much uncertainty and far too many
15 fundamental flaws in Staff's calculations of the theoretical reserve as described
16 above. Therefore, making a significant adjustment to depreciation based on these
17 calculations would be inappropriate and unreasonable at this time.

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 **A.** Yes.

Appendix A

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	ER-03-1274-000	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-	North Shore Gas Company	Depreciation
33.	2005	IL CC	05-	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	FERC		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.		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	
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	ISO82, ETC. 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

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>
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	09-	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

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>
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		Northern Indiana Public Serv. Company - NIFL	Depreciation
120.	2010	IN URC		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

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>
133.	2011	FERC	2011-2232243	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	Integrus – MN Energy Resource Group	Depreciation
153.	2012	TX PUC		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

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>
166.	2013	WY PSC	2003-ER-13	Cheyenne Light, Fuel and Power Company	Depreciation
167.	2013	FERC	ER13- -0000	Kentucky Utilities	Depreciation
168.	2013	FERC	ER13- -0000	MidAmerican Energy Company	Depreciation
169.	2013	FERC	ER13- -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-	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

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>
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 Commission	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

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>
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		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	Jersey Central Power & Light	Depreciation
259.	2017	FERC	ER17-211	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. ER17-	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	Docket Nos. 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-19 / UG-19	Puget Sound Energy	Depreciation

EXHIBIT JJS-2

NORTHEAST OHIO NATURAL GAS CORPORATION

IMPACT OF DATA ADJUSTMENTS ON THEORETICAL RESERVE IMBALANCE AS OF SEPTEMBER 30, 2018

ACCOUNT (1)	STAFF REPORT				CHANGE DUE TO VINTAGING OF COLUMBIA ASSETS					CHANGE DUE TO OTHER STAFF ADJUSTMENTS				
	ORIGINAL COST (2)	BOOK RESERVE (3)	THEOR. RESERVE (4)	THEOR. RESERVE IMBALANCE (5)=(3)-(4)	ORIGINAL COST (6)	BOOK RESERVE (7)	THEOR. RESERVE (8)	THEOR. RESERVE IMBALANCE (9)=(7)-(8)	DIFFERENCE (10)=(9)-(5)	ORIGINAL COST (11)	BOOK RESERVE (12)	THEOR. RESERVE (13)	THEOR. RESERVE IMBALANCE (14)=(12)-(13)	DIFFERENCE (15)=(14)-(9)
INTANGIBLE PLANT														
303.00 MISCELLANEOUS INTANGIBLE PLANT	-	-	-	-	-	-	-	-	-	5,524,723	1,246,322	1,459,488	(213,166)	(213,166)
TOTAL INTANGIBLE PLANT	-	-	-	-	-	-	-	-	-	5,524,723	1,246,322	1,459,488	(213,166)	(213,166)
PRODUCTION PLANT														
330.00 PRODUCING GAS WELLS - WELL CONSTRUCTION	143,894	143,894	23,743	120,151	143,894	143,894	23,743	120,151	-	143,894	143,894	23,743	120,151	-
331.00 PRODUCING GAS WELLS - WELL EQUIPMENT	1,087	430	197	233	1,087	430	197	233	-	1,087	430	197	233	-
332.00 FIELD LINES	52,539	22,110	6,935	15,175	52,539	22,110	6,935	15,175	-	52,539	22,110	6,935	15,175	-
334.00 FIELD MEASURING AND REGULATING STATION EQUIPMENT	65,739	61,779	18,895	42,884	65,739	61,779	18,895	42,884	-	65,739	61,779	18,895	42,884	-
TOTAL PRODUCTION PLANT	263,259	228,213	49,770	178,443	263,259	228,213	49,770	178,443	-	263,259	228,213	49,770	178,443	-
TRANSMISSION PLANT														
367.00 MAINS	2,642,304	340,241	288,392	51,849	2,642,304	340,241	288,392	51,844	(5)	2,642,304	340,241	288,392	51,844	-
TOTAL TRANSMISSION PLANT	2,642,304	340,241	288,392	51,849	2,642,304	340,241	288,392	51,844	(5)	2,642,304	340,241	288,392	51,844	-
DISTRIBUTION PLANT														
375.00 STRUCTURES AND IMPROVEMENTS	-	-	-	-	-	-	-	-	-	56,592	35,728	17,779	17,949	17,949
376.00 MAINS	40,108,087	12,818,751	9,555,764	3,262,987	40,108,087	12,818,751	10,975,355	1,843,396	(1,419,591)	39,538,986	12,517,423	10,742,579	1,774,844	(68,552)
378.00 MEASURING AND REGULATING STATION EQUIPMENT	4,114,077	2,070,200	1,852,108	218,092	4,114,077	2,070,200	1,945,335	124,865	(93,227)	3,957,476	1,998,007	1,886,042	111,965	(12,900)
379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE	205,335	15,003	17,598	(2,595)	205,335	15,003	17,598	(2,595)	-	205,335	220,338	17,598	202,740	205,335
380.00 SERVICES	11,206,454	5,279,010	4,135,009	1,144,001	11,206,454	5,279,010	5,247,756	31,254	(1,112,747)	11,126,860	5,237,000	5,202,481	34,519	3,265
381.00 METERS	6,296,325	2,165,553	1,712,577	452,976	6,296,325	2,165,553	1,952,061	213,492	(239,484)	6,191,227	2,110,001	1,910,416	199,585	(13,907)
382.00 METER INSTALLATIONS	1,299	1,040	1,047	(7)	1,299	1,040	1,047	(7)	-	1,299	2,339	1,047	1,292	1,299
383.00 HOUSE REGULATORS	351,845	276,958	105,905	171,053	351,845	276,958	265,583	11,375	(159,678)	336,919	271,017	260,760	10,257	(1,118)
385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT	1,323,503	1,168,692	1,112,709	55,983	1,323,503	1,168,692	1,115,265	53,427	(2,556)	1,117,698	1,045,101	1,003,786	41,315	(12,112)
387.00 OTHER EQUIPMENT	25,710	22,729	23,630	(901)	25,710	22,729	23,630	(901)	-	25,710	48,439	23,630	24,809	25,710
TOTAL DISTRIBUTION PLANT	63,632,635	23,817,936	18,516,348	5,301,588	63,632,635	23,817,936	21,543,630	2,274,306	(3,027,282)	62,558,102	23,485,393	21,066,118	2,419,275	144,969
GENERAL PLANT														
390.00 STRUCTURES AND IMPROVEMENTS	2,062,927	684,130	735,642	(51,512)	2,062,927	684,130	735,642	(51,512)	-	1,968,465	629,410	702,303	(72,893)	(21,381)
391.00 OFFICE FURNITURE AND EQUIPMENT	6,323,651	1,872,962	1,055,338	817,624	6,323,651	1,872,962	1,056,707	816,255	(1,369)	210,960	155,839	128,671	27,168	(789,087)
391.10 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS	-	-	-	-	-	-	-	-	-	325,289	125,919	126,491	(572)	(572)
392.00 TRANSPORTATION EQUIPMENT	2,425,075	1,739,985	1,280,645	459,340	2,425,074	1,739,985	1,207,368	532,617	73,277	2,296,700	1,620,093	1,111,088	509,005	(23,613)
394.00 TOOLS, SHOP AND GARAGE EQUIPMENT	655,227	404,082	319,214	84,868	655,227	404,082	319,012	85,070	202	595,568	357,480	276,627	80,853	(4,217)
395.00 LABORATORY EQUIPMENT	85,585	34,335	18,796	15,539	85,585	34,335	18,796	15,539	-	61,284	26,026	14,543	11,483	(4,056)
396.00 POWER OPERATED EQUIPMENT	1,951,046	927,960	791,656	136,304	1,951,047	927,960	910,667	17,293	(119,011)	1,900,432	894,179	879,105	15,074	(2,219)
397.00 COMMUNICATION EQUIPMENT	39,757	17,457	17,643	(186)	39,757	17,457	17,643	(186)	-	105,603	34,750	47,529	(12,779)	(12,593)
TOTAL GENERAL PLANT	13,543,268	5,680,911	4,218,933	1,461,978	13,543,268	5,680,911	4,265,835	1,415,076	(46,902)	7,464,300	3,843,694	3,286,357	557,337	(857,739)
TOTAL DEPRECIABLE PLANT	80,081,466	30,067,301	23,073,443	6,993,858	80,081,466	30,067,301	26,147,632	3,919,669	(3,074,190)	78,452,689	29,143,863	26,150,130	2,993,733	(925,936)
NONDEPRECIABLE PLANT														
365.10 LAND AND LAND RIGHTS	192,530	-	-	-	192,530	-	-	-	-	-	-	-	-	-
374.00 LAND AND LAND RIGHTS	1,399,108	125,741	-	-	1,399,108	125,741	-	-	-	1,333,419	81,260	-	-	-
TOTAL NONDEPRECIABLE PLANT	1,591,638	125,741	-	-	1,591,638	125,741	-	-	-	1,333,419	81,260	-	-	-
TOTAL PLANT	81,673,104	30,193,042	23,073,443	6,993,858	81,673,104	30,193,042	26,147,632	3,919,669	(3,074,190)	79,786,108	29,225,123	26,150,130	2,993,733	(925,936)

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

7/25/2019 4:43:15 PM

in

Case No(s). 18-1720-GA-AIR, 18-1721-GA-ATA, 18-1722-GA-ALT

Summary: Testimony Direct Testimony of John Spanos electronically filed by Mr. Mark T Keaney on behalf of Northeast Ohio Natural Gas Corp.