BEFORE THE
NEW YORK STATE
PUBLIC SERVICE COMMISSION

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Proceeding on Motion of the Commission as to the
Rates, Charges, Rules and Regulations of
New York State Electric & Gas Corporation
for Electric Service

Case 15-E- ____

Proceeding on Motion of the Commission as to the
Rates, Charges, Rules and Regulations of
New York State Electric & Gas Corporation
for Gas Service

Case 15-G- ____

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DIRECT TESTIMONY OF
JOHN J. SPANOS

(NEW YORK STATE ELECTRIC & GAS CORPORATION)

May 20, 2015

TABLE OF CONTENTS

PAGE

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

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

Q. ARE YOU ASSOCIATED WITH ANY FIRM?

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

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

A. I have been associated with the firm since college graduation in June 1986.

Q. WHAT IS YOUR POSITION WITH THE FIRM?

A. I am a Senior Vice President.

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

A. I am testifying on behalf of New York State Electric & Gas Corporation ("NYSEG" or the "Company").

Q. PLEASE STATE YOUR QUALIFICATIONS.

A. I have 28 years of depreciation experience which includes giving expert testimony in over 200 cases before 40 regulatory commissions, including the New York Public Service Commission ("NYPSC"). Please refer to Appendix A for my qualifications.

II. PURPOSE AND SCOPE

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I sponsor the depreciation study performed for NYSEG, attached hereto as Schedule Exhibit __ (JJS-1) ("Depreciation Study"). The Depreciation Study sets forth the

calculated annual depreciation accrual rates by account as of December 31, 2014. The proposed rates appropriately reflect the rates at which NYSEG's assets should be depreciated over their useful lives and are based on the most commonly used methods and procedures in New York for determining depreciation rates.

Q. CAN YOU SUMMARIZE THE IMPACT OF THE DEPRECIATION STUDY ON DEPRECIATION RATES?

A. Yes. The table below sets forth a comparison of the current depreciation rates and resultant expense to the proposed depreciation rates and expense by function as of December 31, 2014.

	Current		Proposed	
Function	Rates	Proforma Expense	Rates	Expense
Electric Plant				
Steam	3.23	$ 21,297	3.33	21,927
Hydro	2.17	2,757,503	3.31	4,208,772
Other	2.31	10,808	2.20	10,298
Transmission	2.32	20,344,886	2.15	18,857,773
Distribution	2.75	62,046,149	2.59	58,377,000
General	5.18	8,995,514	4.65	8,068,243
Gas Plant				
Manufactured Gas	0.00	0	1.67	446
Transmission	2.36	13	3.43	19
Distribution	2.38	19,984,243	2.73	22,931,514
General	5.14	1,086,673	5.01	1,058,385
Common Plant				
General	4.82	10,449,606	5.06	10,972,827
Total		$125,696,692		$124,507,204

Q. CAN YOU EXPLAIN SOME OF THE MAJOR FACTORS THAT CAUSED THE CHANGE IN DEPRECIATION RATES?

A. Yes. The major components that caused rates to change by function are as follows:

- Hydro Production Plant: the utilization of more appropriate interim survivor curves and the utilization of the life span technique consistent with license date.
- Transmission Plant: the utilization of longer service lives for some accounts.
- Distribution Plant: the utilization of longer service lives for some accounts.
- General Plant: the utilization of a longer service life for Account 390.0, Structures and Improvements.
- Distribution Plant (Gas): the utilization of shorter average service lives for some accounts.
- Common Plant: the utilization of more appropriate amortization periods for some accounts.

Q. PLEASE DEFINE THE CONCEPT OF DEPRECIATION.

A. Depreciation refers to the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes that can be reasonably anticipated or contemplated against which the Company is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and the requirements of public authorities.

Q. DID YOU PREPARE THE DEPRECIATION STUDY FILED BY NYSEG IN THIS PROCEEDING?

A. Yes. I prepared the depreciation study submitted by NYSEG with its filing in this proceeding. My report is entitled: "2014 Depreciation Study - Calculated Annual Depreciation Accruals Related to Electric, Gas and Common Plant as of December 31, 2014." This report sets forth the results of my depreciation study for NYSEG.

Q. IN PREPARING THE DEPRECIATION STUDY, DID YOU FOLLOW GENERALLY ACCEPTED PRACTICES IN THE FIELD OF DEPRECIATION VALUATION?

A. Yes.

Q. ARE THE METHODS AND PROCEDURES OF THIS DEPRECIATION STUDY CONSISTENT WITH PAST PRACTICES?

A. The methods and procedures of this study are the same as those utilized in the last study for the Company as well as others before NYPSC. Depreciation rates are determined based on the average service life procedure and the whole life method.

III. OUTLINE OF REPORT

Q. PLEASE DESCRIBE THE CONTENTS OF YOUR REPORT.

A. My report is presented in nine parts. Part I, Introduction, presents the scope and basis for the depreciation study. Part II, Estimation of Survivor Curves, includes descriptions of the methodology of estimating survivor curves. Parts III and IV set forth the analysis for determining life and net salvage estimation. Part V, Calculation of Annual and Accrued Depreciation, includes the concepts of depreciation and amortization using the whole life. Part VI, Results of Study, presents a description of the results and a summary of the depreciation calculations. Parts VII, VIII and IX include graphs and tables that relate to the service life and net salvage analyses, and the detailed depreciation calculations.

The table on pages VI-4 through VI-10 presents the estimated survivor curve, the net salvage percent, the original cost as of December 31, 2014, the calculated annual depreciation accrual and rate, and accrued depreciation for each account or subaccount. The section beginning on page VII-2 presents the results of the

retirement rate analyses prepared as the historical bases for the service life estimates. The section beginning on page VIII-2 presents the results of the salvage analysis. The section beginning on page IX-2 presents the depreciation calculations related to surviving original cost as of December 31, 2014.

Q. PLEASE EXPLAIN HOW YOU PERFORMED YOUR DEPRECIATION STUDY.

A. I used the straight line whole life method of depreciation, with the average service life procedure. The annual depreciation is based on a method of depreciation accounting that seeks to distribute the unrecovered cost of fixed capital assets over the estimated remaining useful life of each unit, or group of assets, in a systematic and reasonable manner.

For General Plant Accounts 391.0, 391.2, 393, 394, 395, 397.0, 397.1 and 398 in electric; 391.0, 391.2, 393, 394, 395, 397 and 398 in gas; and 391.0, 391.2, 391.4, 393, 394, 397 and 398 in common plant; I used the straight line whole life method of amortization. The account numbers identified throughout my testimony represent those in effect as of December 31, 2014. The annual amortization is based on amortization accounting that distributes the cost of fixed capital assets over the amortization period authorized for each account and vintage.

IV. METHODS AND PROCEDURES USED IN THE STUDY

Q. HOW DID YOU DETERMINE THE RECOMMENDED ANNUAL DEPRECIATION ACCRUAL RATES?

A. I did this in two phases. In the first phase, I estimated the service life and net salvage characteristics for each depreciable group, that is, each plant account or subaccount identified as having similar characteristics. In the second phase, I calculated the annual depreciation accrual rates and accrued depreciation based on the service life and net salvage estimates determined in the first phase.

Q. PLEASE DESCRIBE THE FIRST PHASE OF THE DEPRECIATION STUDY, IN WHICH YOU ESTIMATED THE SERVICE LIFE AND NET SALVAGE CHARACTERISTICS FOR EACH DEPRECIABLE GROUP.

A. The service life and net salvage study consisted of compiling historical data from records related to NYSEG's plant; analyzing these data to obtain historical trends of survivor characteristics; obtaining supplementary information from management and operating personnel concerning practices and plans as they relate to plant operations; and interpreting the above data and the estimates used by other electric and gas utilities to form judgments of average service life and net salvage characteristics.

Q. WHAT HISTORICAL DATA DID YOU ANALYZE FOR THE PURPOSE OF ESTIMATING SERVICE LIFE CHARACTERISTICS?

A. Generally speaking, I analyzed the Company's accounting entries that record plant transactions during the period 1979 through 2014 for electric and 1996 through 2014 for gas. The transactions included additions, retirements, transfers, sales and the related balances.

Q. WHAT METHOD DID YOU USE TO ANALYZE THESE SERVICE LIFE DATA?

A. I used the retirement rate method. This is the most appropriate method when retirement data covering a long period of time is available because this method determines the average rates of retirement actually experienced by the Company during the period of time covered by the depreciation study.

Q. PLEASE DESCRIBE HOW YOU USED THE RETIREMENT RATE METHOD TO ANALYZE NYSEG'S SERVICE LIFE DATA.

A. I applied the retirement rate analysis to each different group of property in the study. For each property group, I used the retirement rate data to form a life table that, when plotted, shows an original survivor curve for that property group. Each original survivor curve represents the average survivor pattern experienced by the several vintage groups during the experience band studied. The survivor patterns do not necessarily describe the life characteristics of the property group; therefore, interpretation of the original survivor curves is required in order to use them as valid considerations in estimating service life. The Iowa-type survivor curves were used to perform these interpretations.

Q. WHAT IS AN "IOWA-TYPE SURVIVOR CURVE" AND HOW DID YOU USE SUCH CURVES TO ESTIMATE THE SERVICE LIFE CHARACTERISTICS FOR EACH PROPERTY GROUP?

A. Iowa-type curves are a widely-used group of survivor curves that contain the range of survivor characteristics usually experienced by utilities and other industrial companies. The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observing and classifying the

ages at which various types of property used by utilities and other industrial companies had been retired.

Iowa-type curves are used to smooth and extrapolate original survivor curves determined by the retirement rate method. The Iowa curves and truncated Iowa curves were used in this study to describe the forecasted rates of retirement based on the observed rates of retirement and the outlook for future retirements.

The estimated survivor curve designations for each depreciable property group indicate the average service life, the family within the Iowa system to which the property group belongs, and the relative height of the mode. For example, the Iowa 65-R2 indicates an average service life of sixty-five years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a moderate height, 2, for the mode (possible modes for R-type curves range from 1 to 5).

Q. DOES THE DEPRECIATION STUDY INCLUDE ONLY IOWA CURVE ANALYSES?

A. Yes. In other recent cases in New York, the New York State Department of Public Service Staff has been comfortable with the Iowa curves as the primary presentation of life analyses. The Iowa curves are the traditional method across the United States. Workpapers can be presented using H-curves if requested.

Q. WHAT APPROACH DID YOU USE TO ESTIMATE THE LIVES OF SIGNIFICANT FACILITIES SUCH AS HYDRO PLANTS?

A. I used the life span technique to estimate the lives of significant facilities for which concurrent retirement of the entire facility is anticipated. In this technique, the

survivor characteristics of such facilities are described by the use of interim survivor curves and estimated probable retirement dates.

The interim survivor curves describe the rate of retirement related to the replacement of elements of the facility, such as, for a building, the retirements of plumbing, heating, doors, windows, roofs, etc., that occurs during the life of the facility. The probable retirement date provides the rate of final retirement for each year of installation for the facility by truncating the interim survivor curve for each installation year at its attained age at the date of probable retirement. The use of interim survivor curves truncated at the date of probable retirement provides a consistent method for estimating the lives of the several years of installation for a particular facility inasmuch as a single concurrent retirement for all years of installation will occur when it is retired.

Q. HAS GANNETT FLEMING USED THIS APPROACH IN OTHER PROCEEDINGS?

A. Yes, we have used the life span technique in performing depreciation studies presented to and accepted by many public utility commissions across the United States and Canada, as well as New York.

Q. WHAT ARE THE BASES FOR THE PROBABLE RETIREMENT YEARS THAT YOU HAVE ESTIMATED FOR EACH FACILITY?

A. The bases for the probable retirement years are life spans for each facility that are based on judgment and incorporate consideration of the age, use, size, nature of construction, management outlook and typical life spans experienced and used by other electric utilities for similar facilities. Most of the life spans result in probable retirement years that are many years in the future. As a result, the retirements of

these facilities are not yet subject to specific management plans. Such plans would be premature because the specific date at which a given plant will actually be retired is generally not determined until the retirement date becomes much closer than the dates that have been estimated for NYSEG's plants. Retirement dates for hydroelectric facilities were also based on license dates or on informed judgment using the factors I discussed previously.

Q. DID YOU PHYSICALLY OBSERVE NYSEG'S PLANT AND EQUIPMENT AS PART OF YOUR DEPRECIATION STUDY?

A. Yes. I made field reviews of NYSEG's property as part of this study during July 2012 and June 2013 to observe representative portions of plant. Field reviews are conducted to become familiar with Company operations and to obtain an understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements. This knowledge, as well as information from other discussions with management, was incorporated in the interpretation and extrapolation of the statistical analyses.

Q. WOULD YOU EXPLAIN THE CONCEPT OF "NET SALVAGE"?

A. Net salvage is a component of the service value of capital assets that is reflected in depreciation rates. The service value of an asset is its original cost less its net salvage. Net salvage is the salvage value received for the asset upon retirement less the cost to retire the asset. When the cost to retire exceeds the salvage value, the result is negative net salvage.

Inasmuch as depreciation expense is the loss in service value of an asset during a defined period, e.g. one year, it must include a ratable portion of both the original cost and the net salvage. That is, the net salvage related to an asset should

be incorporated in the cost of service during the same period as its original cost so that customers receiving service from the asset pay rates that include a portion of both elements of the asset's service value, the original cost and the net salvage value.

For example, the full recovery of the service value of a $2,000 line transformer includes not only the $2,000 of original cost, but also, on average, $400 to remove the transformer at the end of its life and $100 in salvage value. In this example, the net salvage component is negative $300 ($100 - $400), and the net salvage percent is negative 15% (($100 - $400)/$2,000).

Q. PLEASE DESCRIBE HOW YOU ESTIMATED NET SALVAGE PERCENTAGES.

A. I estimated the net salvage percentages by reviewing the Company's account-specific historical salvage and cost of removal data for the period 1974 through 2014 as a percentage of the associated retired plant as well as considering industry experience in terms of net salvage estimates for other electric and gas companies.

Q. PLEASE DESCRIBE THE SECOND PHASE OF THE PROCESS THAT YOU USED IN THE DEPRECIATION STUDY IN WHICH YOU CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES.

A. After I estimated the service life and net salvage characteristics for each depreciable property group, I calculated the annual depreciation accrual rates for each group, using the straight line whole life method, and the average service life procedure.

Q. PLEASE DESCRIBE THE STRAIGHT LINE WHOLE LIFE METHOD OF DEPRECIATION.

A. The straight line whole life method of depreciation allocates the original cost of the property, less future net salvage, in equal amounts to each year of service life.

Q. PLEASE DESCRIBE AMORTIZATION ACCOUNTING.

A. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. Amortization accounting is used for accounts with a large number of units, but small asset values. Depreciation accounting is difficult for these assets because periodic inventories are required to properly reflect plant in service. Consequently, retirements are recorded when a vintage is fully amortized rather than as the units are removed from service. That is, there is no dispersion of retirements. All units are retired when the age of the vintage reaches the amortization period. Each plant account or group of assets is assigned a fixed period which represents an anticipated life during which the asset will render full benefit. For example, in amortization accounting, assets that have a 25-year amortization period will be fully recovered after 25 years of service and taken off the Company's books, but not necessarily removed from service. In contrast, assets that are taken out of service before 25 years remain on the books until the amortization period for that vintage has expired.

Q. FOR WHICH PLANT ACCOUNTS IS AMORTIZATION ACCOUNTING BEING UTILIZED?

A. Amortization accounting is utilized for certain General Plant or General Plant-related accounts. These accounts are Accounts 391.0, 391.2, 393, 394, 395, 397.0, 397.1 and 398 in electric; 391.0, 391.2, 393, 394, 395, 397 and 398 in gas; and 391.0, 391.2, 391.4, 393, 394, 397 and 398 in common plant. These accounts represent less than 3 percent of the Company's depreciable plant.

V. EXAMPLE OF PRESENTATION

Q. PLEASE USE AN EXAMPLE TO ILLUSTRATE HOW THE ANNUAL DEPRECIATION ACCRUAL RATE FOR A PARTICULAR GROUP OF PROPERTY IS PRESENTED IN YOUR DEPRECIATION STUDY.

A. I will use Electric Account 368, Line Transformers, as an example because it is one of the largest depreciable mass accounts and represents approximately 11 percent of depreciable plant.

The retirement rate method was used to analyze the survivor characteristics of this property group. Aged plant accounting data was compiled from 1979 through 2014 and analyzed in periods that best represent the overall service life of this property. The life tables for the 1979-2014 and 1996-2014 experience bands are presented on pages VII-133 through VII-138 of the report. The life table displays the retirement and surviving ratios of the aged plant data exposed to retirement by age interval. For example, page VII-133 shows $1,730,288 retired at age 0.5 with $424,685,692 exposed to retirement. Consequently, the retirement ratio is 0.0041 and the surviving ratio is 0.9959. These life tables, or original survivor curves, are plotted along with the estimated smooth survivor curve, the 48-R1.5 on page VII-132.

The net salvage percent is presented on pages VIII-72 through VIII-74. The percentage is based on the result of annual gross salvage minus the cost to remove plant assets as compared to the original cost of plant retired during the period 1974 through 2014. The 41-year period experienced $18,784,854 ($11,213,803 - $29,998,657) in net salvage for $101,454,857 plant retired. The result is negative net salvage of 19 percent ($18,784,854/$101,454,857). While the result was

negative 19 percent, recent trends have shown indications of negative 4 percent. However, based on industry ranges, historical indications and Company expectations, I determined that a slightly more conservative negative 15 percent was the most appropriate estimate for this account.

My calculation of the annual depreciation related to the original cost at December 31, 2014, of electric plant is presented on pages IX-70 through IX-72. The calculation is based on the 48-R1.5 survivor curve, 15 percent negative net salvage and the attained age. The tabulation sets forth the installation year, the original cost, calculated accrued depreciation, average life, life expectancy and annual accrual amount and life. These totals are brought forward to the table on page VI-6.

Q. HAVE YOU CALCULATED AN ACTUAL VS. THEORETICAL RESERVE VARIANCE AS PART OF THE DEPRECIATION STUDY?

A. Yes. As set forth on pages VI-11 through VI-13 of the Depreciation Study, there is a total combined excess reserve variance of $170,589,713 for electric ($238,393,636 excess), gas ($55,266,957 deficiency) and common ($12,536,966 deficiency) plant based on the parameters proposed as a result of the study. The most commonly utilized method for recovering these types of excess and deficient variances is over the remaining life of each asset class. However, the remaining life method, which is widely utilized in almost all jurisdictions, is not the traditional method in New York. If remaining life recovery is not utilized, then my recommendation would be to amortize the portion of the variance above a threshold amount of 10% of the cumulative book depreciation over 20 years. I would not recommend recovery in the amortization below a 10% threshold since the reserve variance is based on a

theoretical calculated amount which is subject to significant volatility as depreciation lives and net salvage rates change when applying normal depreciation practices.

Q. HAVE YOU PROPOSED RATES FOR ANY NEW ASSET CLASSES?

A. Yes. The depreciation rates for new technology meters in Account 370.1, Meters - AMI were developed based on the expected useful life and the lives utilized by other utilities that have implemented similar conversions. The expectation is that NYSEG will convert traditional standard meters to the new Advanced Metering Infrastructure ("AMI") meters beginning with a pilot community during 2016-2017, and then following on with other communities. The conversion of all meters will likely take more than 7 years. The proposed average service life for AMI meters is 15 years and should be depreciated at a rate of 7.33% when placed into service. The rate is based on the 15-year average service life and negative 10% net salvage.

Q. DO YOU HAVE A RECOMMENDATION FOR THE RECOVERY OF THE REMAINING INVESTMENT IN THE STANDARD METERS WHICH WILL BE RETIRED EARLIER THAN THEIR ESTIMATED SERVICE LIVES WITH THIS CONVERSION?

A. Yes. The most appropriate method would be to recover the remaining net plant over the remaining life of the assets.

VI. CONCLUSION

Q. WAS THE DEPRECIATION STUDY FILED BY NEW YORK STATE ELECTRIC & GAS CORPORATION IN THIS PROCEEDING PREPARED BY YOU OR UNDER YOUR DIRECTION AND CONTROL?

A. Yes.

Q. IS THE INFORMATION CONTAINED IN THE DEPRECIATION STUDY ACCURATE TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?

A. Yes.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

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