BEFORE THE CORPORATION COMMISSION OF OKLAHOMA

IN THE MATTER OF THE APPLICATION OF	)
OKLAHOMA GAS AND ELECTRIC COMPANY	)
FOR AN ORDER OF THE COMMISSION	) CAUSE NO. PUD 201100087
AUTHORIZING APPLICANT TO MODIFY ITS	)
RATES, CHARGES, AND TARIFFS FOR RETAIL	)
ELECTRIC SERVICE IN OKLAHOMA	)

Direct Testimony

of

John J. Spanos

on behalf of

Oklahoma Gas and Electric Company

July 28, 2011

John J. Spanos
Direct Testimony

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

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

Q. **Are you associated with any firm?**

A. Yes. I am associated with the firm of Gannett Fleming, Inc.

Q. **How long have you been associated with Gannett Fleming, inc.?**

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 Vice President of the Valuation and Rate Division.

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 of Pennsylvania.

Q. **Do you belong to any professional societies?**

A. Yes. I am a member of the Society of Depreciation Professionals and 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 and February 2008.

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 June 1986 through December 1995, I assisted in the preparation of numerous depreciation and original cost studies for utility companies in various industries. I assisted in the conduct of depreciation studies for the following telephone companies: United Telephone Company of Pennsylvania, United Telephone Company of New Jersey and Anchorage Telephone Utility. In addition, I assisted in the conduct of depreciation studies for the following companies in the railroad industry: Union Pacific Railroad, Burlington Northern Railroad and Wisconsin Central Transportation Corporation.

I assisted in the preparation of depreciation studies for the following organizations in the electric industry: Chugach Electric Association, The Cincinnati Gas & 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 assisted in the preparation of 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 assisted in the preparation of depreciation studies for the following gas 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 assisted in the preparation of depreciation studies for the following water 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.

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 appointed to my current position of Vice President. I am responsible for conducting 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; 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; 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; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Northern Indiana Public Service Company; Tennessee-American Water Company; Columbia Gas of Maryland; 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, Madison Gas and Electric, Atlantic City Electric and Greater Missouri Operations. 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 regulatory utility commissions 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; the Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; the 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; the Maryland Public Service Commission; the Washington Utilities and Transportation Commission; the Tennessee Regulatory Authority; the District of Columbia Public Service Commission; the Mississippi Public Service Commission; the Regulatory Commission of Alaska; Delaware Public Service Commission; Virginia State Corporation Commission; Wisconsin Public Service Commission; and the North Carolina Utilities Commission.

Q. **Have you received 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."

Q. **What is the purpose of your testimony in this proceeding?**

A. My testimony will support and explain the current depreciation study of electric utility plant of Oklahoma Gas and Electric Company ("OG&E" or "Company"). The study covers all of OG&E's electric and general plant assets.

Q. **Did OG&E perform a depreciation study?**

A. Yes. OG&E engaged Gannett Fleming, Inc., to prepare a current depreciation study of OG&E's Electric Utility plant. All of OG&E's utility plant is covered by the study.

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, obsolescence, changes in the art, changes in demand and the requirements of public authorities.

Q. **What is the purpose of depreciation accounting?**

A. When OG&E provides electric service to customers, physical assets are consumed and useful life is lost. Book depreciation accounting recognizes these costs on the financial statements of the company. Book depreciation is capital recovery of the investment in assets used to provide electric service. It is not intended to provide for the replacement of assets.

The American Institute of Certified Public Accountants ("AICPA") defines depreciation accounting as follows:

> "Depreciation Accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of

valuation."[1]

Q. **What do Generally Accepted Accounting Principles ("GAAP") require?**

A. GAAP requires the use of a systematic and rational manner for recording depreciation expense. That means for depreciation to be systematic and rational, it should attempt to match the consumption (or life) of the assets to the revenue generated by the assets.

Q. **What role does the Commission have regarding a regulated utility's depreciation accounting?**

A. According to the publication Accounting for Public Utilities (Matthew Bender, Hahne & Aliff) the regulatory process involves the following:

> . . .for depreciation, the utility regulatory process deals with:
>
> (1) the accounting principle of matching;
>
> (2) the regulatory concept known as intergenerational customer equity;
>
> (3) the accounting rules of the uniform systems of accounts promulgated by regulatory bodies; and, of course,
>
> (4) the rate case revenue requirements generated by depreciation expense. (§6.01).

Q. **Please explain the accounting principles of matching and the regulatory concept known as intergenerational customer equity.**

A. These two issues are interrelated. As stated above, the accounting principle of matching states that depreciation should match the consumption of the assets or the revenues generated by the assets to be systematic and rational.

This matching principle is important because matching the depreciation to the consumption of the assets, or the revenues generated by the assets, ensures that the customers who receive the electricity produced by OG&E's assets pay for the cost related to the consumption of the physical assets that provided them the electricity. This is the regulatory concept known as intergenerational customer equity which means that the costs are paid by the generation of

1 Acctg Term Bull No. 1, ¶56 (Aug. 1953).

customers that cause the costs to be incurred rather than previous or later generations. The matching is an attempt to ensure that charges to customers reflect the actual cost of providing electric service to those customers.

Q. **Please discuss the accounting rules that have been adopted by the Commission.**

A. OG&E must follow the Federal Energy Regulatory Commission's (FERC) electric Uniform System of Accounts (USOA) adopted by this Commission at OAC 165:35-27-4. The regulatory accounting framework is really dictated by the USOA.

The purpose or function of depreciation accounting, in general, is the recording of asset costs in a manner or pattern that matches the pattern of asset usage or revenue generating capability. As stated previously, this match between asset usage and the recording of that usage is known as the matching principle of depreciation accounting.

The asset cost is comprised of three elements. Those three elements are investment, gross salvage, and cost of removal. These elements are recorded on an accrual basis over the estimated useful life of the asset as depreciation expense. After an investment is made, its depreciation is accrued (recorded as a periodic expense). Both the estimated salvage receipt and an estimated removal cost expenditure are accrued prior to being incurred, also through depreciation expense. These accruals are intended to provide depreciation reserve amounts sufficient to cover the retired asset investment, related salvage proceeds, and the cost of removal expenditures. The accrued and recorded amounts normally do not match and the estimates of the future that are reflected in depreciation rates periodically change, which is why OG&E periodically assesses the continued validity of its depreciation rates through a depreciation study.

Q. **How does depreciation impact the revenue requirement in a rate case?**

A. Depreciation impacts OG&E's revenue requirement in two ways. First, depreciation expense is a positive component of the revenue requirement. Secondly, depreciation accumulation reduces rate base (thus reducing return and the accompanying taxes) and is therefore a negative component of the revenue requirement.

Q. **Please identify the depreciation studies you performed for OG&E.**

A. The two studies are contained in the Company's Supplemental Package and identified as WP I 3-1 and WP I 3-2. WP I 3-1 is a report entitled, "Depreciation Study - Calculated Annual Depreciation Accruals Related to Electric Plant as of December 31, 2009." WP I 3-2 is a report entitled, "Holding Company Assets - Depreciation Study - Calculated Annual Depreciation Accruals Related to General Plant as of December 31, 2009." These reports set forth the results of my depreciation studies for OG&E. WP I 3-1 and WP I 3-2 were prepared and the analyses that underlie the report were conducted under my direction and supervision.

Q. **Are WP I 3-1 and WP I 3-2 a true and accurate copy of your depreciation studies?**

A. Yes.

Q. **Do WP I 3-1 and WP I 3-2 accurately portray the results of your depreciation studies as of December 31, 2009?**

A. Yes.

Q. **What was the purpose of your depreciation studies?**

A. The purpose of the depreciation studies was to estimate the annual depreciation accruals related to electric and common plant in service for financial and ratemaking purposes and determine appropriate average service lives and net salvage percentages for each plant account.

Q. **Please describe the contents of WP I 3-1 and WP I 3-2.**

A. Each report is presented in three parts. Part I, Introduction, describes the scope and basis for the depreciation study. Part II, Methods Used in the Estimation of Depreciation, explains the basis of the study, the estimation of survivor curves and net salvage and the calculation of annual and accrued depreciation. Part III, Results of Study, presents a description of the results, a summary of the depreciation calculations, graphs and tables that relate to the service life and net salvage analyses, and the detailed depreciation calculations.

The tables on pages III-4 through III-11 of WP I 3-1 and pages III-4 and III-5 of WP I 3-2 present the estimated survivor curve, the net salvage percent, the original cost as of

December 31, 2009, the book reserve and the calculated annual depreciation accrual and rate for each account or subaccount. The section beginning on page III-12 of the report presents the results of the retirement rate analyses prepared as the historical bases for the service life estimates. The section beginning on page III-127 of WP I 3-1 presents the results of the salvage analysis. The section beginning on page III-158 of WP I 3-1 presents the depreciation calculations related to surviving original cost as of December 31, 2009 WP I 3-2 is set forth in a similar manner.

Q. **Please explain how you performed your depreciation studies.**

A. I used the straight line remaining 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 rational manner.

For General Plant Accounts 391.0, 391.1, 391.3, 393.0, 394.0, 395.0, 397.0, and 398.0 in WP I 3-1 and General Plant Accounts 391.1, 391.12, 391.4, 391.5, 391.6, 391.9, 393.0, 395.0, 397.1, 397.2, 397.4, 397.5 and 398.0 in WP I 3-2, I used the straight line remaining life method of amortization. The annual amortization is based on amortization accounting that distributes the unrecovered cost of fixed capital assets over the remaining amortization period selected for each account and vintage.

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 composite remaining lives and annual depreciation accrual rates 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 historic data from records related to OG&E's plant; analyzing these data to obtain historic trends of survivor and net

salvage characteristics; obtaining supplementary information from OG&E's management, and operating personnel concerning practices and plans as they relate to plant operations; and interpreting the above data as well as estimates used by other electric utilities to form judgments of average service life and net salvage characteristics.

Q. **What historic data did you rely on to estimate service life characteristics?**

A. I analyzed the Company's accounting entries relating to plant additions, transfers, and retirements recorded during the period 1997 through 2009. The Company records also included surviving dollar value by year installed for each plant account as of December 31, 2009.

Q. **What method did you use to analyze this service life data?**

A. I used the retirement rate method for all accounts. This is the most appropriate method when aged retirement data are available, because this method determines the average rates of retirement actually experienced by the Company during the period of time covered by the study.

Q. **Would you explain how you used the retirement rate method to analyze OG&E's service life data?**

A. I applied the retirement rate method to each different group of property in the study. For each property group, I used the retirement rate method to form a life table which, 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 experienced 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 generalized 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 have been retired.

Iowa-type curves are used to smooth and extrapolate original survivor curves determined by the retirement rate method. We used Iowa curves and truncated Iowa curves 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 50-R1 indicates an average service life of fifty years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a low height, 1, for the mode (possible modes for R type curves range from 1 to 5).

Q. **What approach did you use to estimate the lives of significant structures and production facilities?**

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 curve describes 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 occur 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 many public utility commissions across the United States and Canada, including past studies for OG&E in Oklahoma.

Q. **Are the factors considered in your estimates of service life and net salvage percents presented in WP I 3-1?**

A. Yes. A discussion of the factors considered in the estimation of service lives and net salvage percents are presented on pages II-19 through II-27 of WP I 3-1.

Q. **Did you physically observe OG&E's plant and equipment as part of your depreciation study?**

A. Yes. I have made field reviews of OG&E's property to observe representative portions of plant. Field reviews are conducted to become familiar with Company operations and 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 was incorporated in the interpretation and extrapolation of the statistical analyses.

Q. **Would you please explain the concept of "net salvage"?**

A. Net salvage is a component of the service value of capital assets that is recovered through 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 $1000 pole will include not only the $1000 of original cost, but also, on average, a $450 cost to remove the pole at the end of its life and a $50 credit for salvage value. In this example, the net salvage component is negative $400 ($50 - $450), and the net salvage percent is negative 40% (($50 - $450)/$1000).

Q. **Please describe how you estimated net salvage percentages.**

A. I estimated the net salvage percentages incorporating the historical data for the period 1991 through 2008 and considered estimates for other electric companies.

Q. **Please describe the second phase of the process that you used in the depreciation study in which you calculated composite remaining lives and 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 based on the straight line remaining life method, using remaining lives weighted consistent with the average service life procedure. The calculation of annual depreciation accrual rates were developed as of December 31, 2009.

Q. **Please describe the straight line remaining life method of depreciation.**

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

Q. **Please describe amortization accounting.**

A. Amortization accounting is used for accounts with a large number of units, but small asset values. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. However, 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 retirement. 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 service. For example, in amortization accounting, assets that have a 20-year amortization period will be fully recovered after 20 years of service and taken off the Company books, but not necessarily removed from service. In contrast, assets that are taken out of service before 20 years remain on the books until the amortization period for that vintage has expired.

Q. **For which plant accounts is amortization accounting implemented?**

A. Amortization accounting is only appropriate for certain General Plant accounts. These accounts are General Plant Accounts 391.0, 391.1, 391.3, 393.0, 394.0, 395.0, 397.0 and 398.0 WP I 3-1 and General Plant Accounts 391.1, 391.12, 391.4, 391.5, 391.6, 391.9, 393.0, 395.0, 397.1, 397.2, 397.4, 397.5 and 398.0 in WP I 3-2 which represent less than one percent of depreciable plant.

Q. **Please use an example to illustrate the development of the annual depreciation accrual rate for a particular group of property in your depreciation study.**

A. I will use Account 364.0, Poles, Towers and Fixtures, as an example because it is one of the largest depreciable groups for mass accounts and represents an easily understood asset. The retirement rate method was used to analyze the survivor characteristics of this property group. Aged plant accounting data were compiled from 1997 through 2008 and analyzed to best represent the overall service life of this property. The life table for the 1997-2008 experience band is presented on pages III-84 and III-85 of WP I 3-1. The life table displays the retirement and surviving ratios of the aged plant data exposed to retirement by age interval. For example, page III-84 shows $877,244 retired during age interval 0.5-1.5 with $179,192,242 exposed to retirement at the beginning of the interval. Consequently, the

retirement ratio is 0.0049 ($877,244/$179,192,242) and the surviving ratio is 0.9951 (1-.0049). The percent surviving at age 0.5 of .9951 percent is multiplied by the survivor ratio of 99.58 to derive the percent surviving at age 1.5 of 99.09 percent. This process continues for the remaining age intervals for which plant was exposed to retirement during the period 1997-2008. The resultant life table, or original survivor curve, is plotted along with the estimated smooth survivor curve, the 50-R1 on page III-83.

The net salvage percent is presented on page III-146 of WP I 3-1. 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 1991 through 2008. The 18-year period experienced negative $17,332,897 ($14,527,118 - $31,860,015) in net salvage for $38,773,845 plant retired. The result is negative net salvage of 45 percent ($17,332,897/$38,773,845); however, the most recent three-year period and the rolling five-year averages trend toward negative 67 and negative 63 percent, respectively. Therefore, based on the statistics and industry averages, negative 40 percent was recommended.

My calculation of the annual depreciation related to original cost of Account 364.0, Poles, Towers and Fixtures, at December 31, 2009, is presented on pages III-273 and III-274 of WP I 3-1. The calculation is based on the 50-R1 survivor curve, 40 percent negative net salvage, the attained age, and the allocated book reserve. The tabulation sets forth the installation year, the original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual. These totals are brought forward to the table on page III-9.

Q. **Does the example for WP I 3-1 support the contents in WP I 3-2?**

A. Yes, it does. WP I-3.1 and WP I-3.2 were conducted in the same manner.

Q. **In your opinion, are the depreciation and amortization rates set forth in WP I 3-1 and WP I 3-2 the appropriate rates for the Oklahoma Commission to adopt in this proceeding for OG&E?**

A. Yes. These rates appropriately reflect the rates at which the value of OG&E's assets are being consumed over their useful lives. These rates are an appropriate basis for setting

electric rates in this matter and for the Company to use for booking depreciation and amortization expense going forward.

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

A. Yes.