

REBUTTAL TESTIMONY  
OF  
JOHN J. SPANOS

CASES 08-E-0887 & 08-G-0888

1 Q. Please state your name and business address.

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

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by Gannett Fleming, Inc. ("Gannett Fleming") I am Vice  
6 President of the Valuation and Rate Division.

7 Q. Please describe your education and business experience.

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

11  
12 I have been associated with the firm since college graduation in 1986. The  
13 Valuation and Rate Division of Gannett Fleming provides depreciation consulting  
14 services to utility companies in the United States and Canada. As Vice President  
15 of Gannett Fleming's Valuation and Rate Division, I am responsible for  
16 conducting depreciation, valuation and original cost studies, determining service  
17 life and salvage estimates, conducting field reviews, presenting recommended

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1 depreciation rates to clients, and supporting such rates before state and federal  
2 regulatory agencies.

3 Q. Do you belong to any professional societies?

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

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

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

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

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

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

3  
4 I assisted in the preparation of depreciation studies for the following  
5 organizations in the electric industry: Chugach Electric Association, The  
6 Cincinnati Gas & Electric Company (CG&E), The Union Light, Heat and Power  
7 Company (ULH&P), Northwest Territories Power Corporation and the City of  
8 Calgary - Electric System.

9  
10 I assisted in the preparation of depreciation studies for the following pipeline  
11 companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company  
12 Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and  
13 Lakehead Pipeline Company.

14  
15 I assisted in the preparation of depreciation studies for the following gas  
16 companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The  
17 Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E,  
18 ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

19  
20 I assisted in the preparation of depreciation studies for the following water  
21 companies: Indiana-American Water Company, Consumers Pennsylvania Water  
22 Company and The York Water Company; and depreciation and original cost

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1 studies for Philadelphia Suburban Water Company and Pennsylvania-American  
2 Water Company.

3  
4 In each of the above studies, I assembled and analyzed historical and simulated  
5 data, performed field reviews, developed preliminary estimates of service life and  
6 net salvage, calculated annual depreciation, and prepared reports for submission  
7 to state Public Utility Commissions or federal regulatory agencies. I performed  
8 these studies under the general direction of William M. Stout, P.E.

9  
10 In January, 1996, I was assigned to the position of Supervisor of  
11 Depreciation Studies. In July, 1999, I was promoted to the position of Manager,  
12 Depreciation and Valuation Studies. In December, 2000, I was promoted to my  
13 present position as Vice President of Gannett Fleming Valuation and Rate  
14 Consultants, Inc., now the Valuation and Rate Division of Gannett Fleming, Inc. I  
15 am responsible for conducting depreciation, valuation and original cost studies,  
16 including the preparation of testimony, exhibits and responses to data requests  
17 for submission to the appropriate regulatory bodies. Since January 1996, I have  
18 conducted depreciation studies similar to those previously listed, including  
19 assignments for Hampton Water Works Company, Omaha Public Power District,  
20 Enbridge Pipe Line Company, Inc., Columbia Gas of Virginia, Inc., Virginia  
21 Natural Gas Company, National Fuel Gas Distribution Corporation - New York  
22 and Pennsylvania Divisions, The City of Bethlehem - Bureau of Water, The City

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1 of Coatesville Authority, The City of Lancaster - Bureau of Water, Peoples  
2 Energy Corporation, The York Water Company, Public Service Company of  
3 Colorado, Reliant Energy-HLP, Massachusetts-American Water Company, St.  
4 Louis County Water Company, Missouri-American Water Company, Chugach  
5 Electric Association, Alliant Energy, Oklahoma Gas & Electric Company, Nevada  
6 Power Company, Dominion Virginia Power, NUI-Virginia Gas Companies,  
7 Pacific Gas & Electric Company, PSI Energy, NUI - Elizabethtown Gas  
8 Company, Cinergy Corporation – CG&E, Cinergy Corporation – ULH&P,  
9 Columbia Gas of Kentucky, SCANA, Inc., Idaho Power Company, El Paso  
10 Electric Company, Centennial Pipeline Company, CenterPoint Energy-Arkansas,  
11 CenterPoint Energy – Oklahoma, CenterPoint Energy – Entex, CenterPoint  
12 Energy - Louisiana, NSTAR – Boston Edison Company, Westar Energy, Inc.,  
13 PPL Electric Utilities, PPL Gas Utilities, Wisconsin Power & Light Company,  
14 TransAlaska Pipeline, Columbia Gas of Pennsylvania, Artesian Water Company,  
15 Tennessee American Water Company, Central Vermont Public Service  
16 Corporation, Avista Corporation, Northwest Natural Gas, Allegheny Energy  
17 Supply, Inc., Public Service Company of North Carolina, South Jersey Gas  
18 Company, Duquesne Light Company, MidAmerican Energy Company, Laclede  
19 Gas, Duke Energy Company, Duke Energy Carolinas, Duke Energy Ohio Gas,  
20 Duke Energy Kentucky, Kentucky American Water Company, Anchorage  
21 Municipal Light and Power, E.ON U.S. Services Inc., Virginia American Water  
22 Company, Elkton Gas Services, Anchorage Water and Wastewater Utility,

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1 Bonneville Power Administration, NSTAR Electric and Gas Company, EPCOR  
2 Distribution, Inc., B. C. Gas Utility, Ltd. and Central Hudson Gas & Electric  
3 Corporation ("Central Hudson" or the "Company"). My additional duties include  
4 determining final life and salvage estimates, conducting field reviews and  
5 presenting recommended depreciation rates to management for their  
6 consideration. The field reviews include on-site inspection of facilities as well as  
7 discussions with company management regarding operating plans and  
8 expectations of factors which affect life and salvage parameters.

9  
10 Q. Have you received any additional education relating to utility plant depreciation?

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

17 Q. Have you previously testified before this Commission?

18 A. Yes. I provided testimony on the subject of depreciation in Case 04-G-1047; a  
19 National Fuel Gas Distribution Corporation rate case, and for Central Hudson in  
20 Cases 05-E-0934 and 05-G-0935.

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1 Q. Have you submitted testimony before any other state utility commissions on the  
2 subject of utility plant depreciation?

3 A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission,  
4 the Commonwealth of Kentucky Public Service Commission, the Public Utilities  
5 Commission of Ohio, the Nevada Public Utility Commission, the Public Utilities  
6 Board of New Jersey, the Missouri Public Service Commission, the  
7 Massachusetts Department of Telecommuni-cations and Energy, the Idaho  
8 Public Utility Commission, the Louisiana Public Service Commission, the State  
9 Corporation Commission of Kansas, the Oklahoma Corporate Commission,  
10 Delaware Public Service Commission, Tennessee Regulatory Authority, the  
11 Public Service Commission of South Carolina, Railroad Commission of Texas –  
12 Gas Services Division, the New York Public Service Commission, Illinois  
13 Commerce Commission, the Indiana Utility Regulatory Commission, the  
14 California Public Utilities Commission, the Arkansas Public Service Commission,  
15 the Public Utility Commission of Texas, the Regulatory Commission of Alaska,  
16 and the North Carolina Utilities Commission. I have also submitted testimony to  
17 the Alberta Energy & Utility Board and the Federal Energy Regulatory  
18 Commission (“FERC”).

19

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

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1 A. The purpose of my testimony is to respond to various aspects of the direct  
2 testimony and exhibits of Staff's Depreciation Panel. Generally, I will discuss the  
3 Depreciation Panel's approach and proposals regarding the selection of average  
4 service lives and net salvage factors for purposes of establishing depreciation  
5 rates for calculating depreciation expense and the theoretical depreciation  
6 reserve.

7 Q. Was the depreciation study referred to in the Deprecation Panel's testimony  
8 prepared by you?

9 A. Yes. It was prepared by me with the assistance of analysts under my  
10 supervision and direction.

11 Q. Is that depreciation study the basis for Central Hudson's proposed average  
12 service lives, retirement dispersion curves and salvage factors as presented in its  
13 filing?

14 A. Yes, it is.

15 Q. Please summarize the Depreciation Panel's proposals that differ from your study  
16 results with regard to electric plant?

17 A. Although the Depreciation Panel attempts to categorize the different rationales  
18 for changing the Company's proposals for survivor curves, the bottom line is a  
19 change in average service life, survivor curves or both for 14 accounts or

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1 subaccounts, which the Depreciation Panel categorizes as 10 accounts, in  
2 electric plant. The explanation offered for these changes are described by the  
3 Depreciation Panel as either a better visual fit or visual matching of points or  
4 insufficient data to warrant a change from the current estimates now used by the  
5 Company. The Depreciation Panel also suggests changes to Company  
6 proposed net salvage factors which I will address later in this testimony.

7 Q. Please identify the accounts or subaccounts for which the Depreciation Panel  
8 recommends a change from the Company's proposed life estimates?

9 A. The Depreciation Panel recommends changing the estimates for Accounts 334.1,  
10 Accessory Electric Equipment; 355.0, Poles and Fixtures; 355.15, Poles and  
11 Fixtures – 345KV Line; 356.10, Overhead Conductors and Devices; 356.15,  
12 Overhead Conductors and Devices – 345KV Line; 356.20, Overhead Conductors  
13 and Devices – Clearing; 356.25, Overhead Conductors and Devices – Clearing  
14 345KV Line; 361.0, Structures and Improvements; 362.11, Station Equipment;  
15 362.2, Station Equipment – Held for Reuse; 365.0, Overhead Conductors and  
16 Devices; 369.1, Services – Overhead; 369.2, Services – Underground; and  
17 370.0, Meters. The Depreciation Panel's changes can be categorized into two  
18 groups, (1) limited historical data does not allow for change from the currently  
19 used estimates so Company proposed changes should be rejected, and (2)  
20 visual data fits and statistical-only analysis are the only criteria necessary for  
21 determining life parameters.

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1 Q. For which accounts or subaccounts does the Depreciation Panel suggest that the  
2 Company proposals to change life parameters be rejected based on limited  
3 historical retirement data?

4 A. The accounts or subaccounts are: 355.0, 355.15, 356.10, 356.15, 356.2, 356.25  
5 and 361.0.

6 Q. Is the Depreciation Panel's "limited data" rationale sufficient to reject the  
7 Company's proposed changes for those accounts?

8 A. No.

9 Q. Please explain why not.

10 A. First and foremost, it must be clear that determining the most appropriate life  
11 characteristics of an account requires judgment which includes many factors  
12 such as historical data, estimates of other utilities with similar assets, future  
13 expectations of the Company for the asset class and an understanding of the  
14 assets within the account. Each of these factors could change over time.  
15 Therefore, maintaining the current estimate as described by the Depreciation  
16 Panel in their direct testimony, page 10, lines 9 through 23, is not reasonable.  
17 Second, the currently used estimates and the newly proposed estimates were  
18 not based on historical data because of the limited amount of historical retirement  
19 data. Informed judgment was required and applied when currently used

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1 estimates were developed, so informed judgment should be applied with the  
2 information available to us today to properly depreciate the assets of today.  
3 Therefore, simply choosing to continue with the currently used estimates is not a  
4 reasonable or theoretically sound approach for the seven accounts or  
5 subaccounts in this group.

6 Q. Please explain in more detail why that is so?

7 A. I will start with a discussion of Transmission Account 355.0, Poles and Fixtures.  
8 The current life estimate is a 55-R3 survivor curve, which is also maintained by  
9 the Depreciation Panel. The life estimate by the Company is a 50-S0.5 survivor  
10 curve. Although the Depreciation Panel portrays this account as one with limited  
11 data, I feel it is better assessed as an account without a distinct historical life  
12 indication; therefore, judgment is necessary to arrive at the most appropriate  
13 representation of life characteristics. When considering the forces of retirement  
14 on transmission poles and the survivor curves used by other electric utilities, we  
15 will see that the newly proposed 50-S0.5 survivor curve is a better representation  
16 of life characteristics than the 55-R3 survivor curve recommended by the  
17 Depreciation Panel. The historical data from 1936 – 2007 is plotted on the  
18 attached chart (Exhibit \_\_\_(JJS-1R), Schedule 1 of 2). We can see that  
19 historically there has been a gradual percent of assets being retired per age  
20 interval with the exception of the 60.5 age interval when a large group of poles of  
21 that one age have been retired. It is also common across the industry for the

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1 poles accounts to be represented by a low-moded curve with an average age  
2 between 40 and 55 years and with a maximum life of less than 100 years. The  
3 future expectations for transmission poles is that poles will experience a quicker  
4 turnover than we have seen in the past to handle the aging infrastructure as well  
5 as the load growth. Company plans related to aging infrastructure replacement  
6 is indicated as that associated with the Company's plan to rebuild 11.5 miles of  
7 69 kV line as supported by the Staff Electric Infrastructure Panel. The  
8 Company's planned Transmission Sag Mitigation Program indicates the need for  
9 pole replacement due to mandated safety requirements as also discussed and  
10 supported by the Staff Electric Infrastructure Panel. Consequently, when you  
11 also incorporate industry information of an average life of 40-55 years and  
12 maximum life of less than 100 years, an expected low-moded curve, and a future  
13 expectation of increased pole replacement with the past historical indications,  
14 then the 50-S0.5 survivor curve is more appropriate than the 55-R3 survivor  
15 curve.

16 In the case of Transmission Account 356.1, Overhead Conductors and  
17 Devices, the Company proposes a 55-S0.5 survivor curve as compared to the  
18 Depreciation Panel's suggestion to retain the currently used 60-R2. As shown by  
19 the attached chart (Exhibit \_\_ (JJS-1R), Schedule 2 of 2), the two survivor curves  
20 are quite similar and the historical data is relatively inconclusive. Thus, we need  
21 to include some of the same informed judgment to arrive at the best survivor

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1 curve for the account. Through experience in doing depreciation studies we  
2 know that industry practices have the life of overhead conductor being linked to  
3 the life of the associated poles. Therefore, the industry range for conductor is  
4 between 40 and 55 years, we expect heavier future retirements than what we  
5 have historically experienced and the dispersion pattern should be similar to the  
6 related poles. Consequently, a change from the 60-R2 survivor curve to the 55-  
7 S0.5 is reasonable.

8 The currently used estimate for Distribution Account 361.0, Structures and  
9 Improvements, is an 80-R3 survivor curve which the Depreciation Panel is  
10 recommending to maintain. The 80-R3 survivor curve does not do a good job of  
11 matching the significant portion of the historical data and produces an  
12 unreasonable maximum life for the account of 130 years. In addition, the 80-year  
13 average is considerably outside the industry range for distribution substation  
14 buildings of 45-60 years. Also, it does not consider the industry transition from  
15 brick structures to the new technology of modular structures which have not been  
16 implemented by the Company as yet, but will be in the near future. The 65-R3  
17 survivor curve is a much better fit of the significant portion of the assets exposed  
18 to retirement and considers the ever changing requirements of the distribution  
19 substation assets.

20 The other subaccounts in this group present the same type of assets and life  
21 characteristics as described in Accounts 355.0 and 356.1, however, there is

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1 minimal historical indication upon which to base an estimate. Consequently, the  
2 same estimate for the subaccounts is utilized for the same assets in the primary  
3 asset class. For example, the estimate for Account 355.15 is based on the same  
4 statistical analysis and informed judgment as utilized for Account 355.0.

5 Q. For which accounts or subaccounts does the Depreciation Panel suggest that the  
6 Company proposed life estimates be rejected in favor of Staff proposals based  
7 on a visual appearance of historical data curve fitting?

8 A. The accounts or subaccounts for which the Depreciation Panel's proposal based  
9 on a historical data visual appearance approach only are: 334.10, 362.11, 362.2,  
10 365.0, 369.1, 369.2 and 370.0.

11 Q. Is the Depreciation Panel's historical data visual appearance approach sufficient  
12 to reject the Company's proposed changes for those accounts?

13 A. No.

14 Q. Please explain why not.

15 A. The Depreciation Panel has based their estimates for these accounts on a  
16 selection of rolling and shrinking band analyses performed by the Company at  
17 the Depreciation Panel's request during discovery as the Depreciation Panel's  
18 testimony notes. These bands also include a statistical fitting of the smooth  
19 survivor curve to the historical original curve. Although I agree with the

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1 Depreciation Panel that some, but not all of their selected curves are a better  
2 statistical fit than the Company's, it is critical to understand that life analysis is not  
3 just a statistical exercise. Solely basing the life estimate on historical data  
4 implies that the past is the only indicator of the future which completely  
5 eliminates technology as a force of retirement. It also eliminates growth and  
6 operational efficiencies as well as programs to replace aging infrastructure. And  
7 finally, only focusing on past historical data eliminates changes in regulation such  
8 as requirements as mentioned earlier. Each one of these forces is critical in  
9 estimating life characteristics for each asset class. Consequently, the estimates  
10 proposed by the Company include consideration of each of these forces along  
11 with the statistical analysis of the Company and the results within the industry for  
12 these asset classes.

13 I will begin my discussion with Account 334.1, Accessory Electric Equipment.  
14 The major components in this account are electronic relays and controls within  
15 the hydro facilities. In the past, these assets were electro-mechanical; however,  
16 new technology is microprocessor or digital based. Consequently, better  
17 technology and efficiency, but considerably shorter life. The Company proposes  
18 a 50-R1.5 survivor curve and the Depreciation Panel proposes a 55-L0 survivor  
19 curve. Each of these estimates is on the long side for the industry and reflects  
20 the electro-mechanical life for the controls. The current estimate is 55-R.15  
21 survivor curve. Therefore, the Company proposes to shorten the life by 5 years

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1 but maintain the current dispersion pattern. The Depreciation Panel proposes to  
2 maintain the average life, but change the dispersion pattern. In other words, the  
3 Company proposal reflects the expectation of a changing life while the  
4 Depreciation Panel's estimate assumes the same average and a longer  
5 maximum life. The Depreciation Panel's estimate is not realistic. Not only does  
6 the 55-L0 survivor curve miss the major portion of the past historical indicators,  
7 but it does not consider a changed average service life and most importantly  
8 anticipates a maximum life for electric equipment to be in service for 175 years.  
9 These key points only are why the Depreciation Panel's estimate of 55-L0 for  
10 Account 334.10 is unreasonable and why a statistically-focused only analysis is  
11 inappropriate. The 50-R1.5 survivor curve recommended by the Company  
12 should be accepted.

13 Next, I will discuss how judgment must be incorporated into the overall analysis  
14 of life characteristics for an account such as Account 369.1, Services –  
15 Overhead. The statistical analysis conducted for Account 369.1 in the  
16 Depreciation Study was combined with Account 369.2, to set forth historical data  
17 for the periods, 1938-2007 and 1973-2007. In addition to the historical analysis,  
18 it is important to include judgment related to the overhead and underground  
19 services in order to properly estimate future life characteristics. Services are  
20 expected to have life characteristics similar to the associated poles and  
21 conductor that they are connected to, however, the services have the additional

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1 forces of retirement such as customer damage and customer demand changes.  
2 Therefore, the average service life as well as the maximum life for services  
3 should be shorter than the associated poles and conductor. In summation, the  
4 52-R1.5 type curve recommended by the Company includes a combination of  
5 historical analyses of 70 years of data plus judgment that includes expectations  
6 of related poles and conductor as well as considering industry averages of 40-55  
7 years for overhead services and 40-60 years for underground services. Also, it  
8 must be considered that the maximum life for services should not exceed 100  
9 years and the fact that there is four times more plant investment of overhead  
10 than underground services, then a combined 52-year average is reasonable. All  
11 of these factors are critical in determining the most appropriate life estimate for  
12 services.

13 Each of the other accounts in this group has similar reasons as to why statistical  
14 only studies are not the best estimators of the future. Also, the Depreciation  
15 Panel seems to be influenced by the insignificant exposures of the original  
16 survivor curve. For example, Account 362.11, Station Equipment has had almost  
17 \$99 million in plant exposed to retirement for the 70 years of transactional  
18 experience and the Depreciation Panel allows assets around \$100,000 or one-  
19 tenth of a percent of the account assets to be as important as the \$99 million. In  
20 my opinion, those assets should not be ignored but they should not carry the  
21 same importance.

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NET SALVAGE ANALYSIS

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Q. Please identify the electric plant accounts for which the Depreciation Panel has recommended a change from the Company's proposed net salvage factor to be included in the depreciation rate and the calculation of the theoretical reserve?

A. The 15 electric plant accounts that the Depreciation Panel recommends to change are: Accounts 334.1, Accessory Electric Equipment; 354.0, Towers and Fixtures; 355.0, Poles and Fixtures; 355.15, Poles and Fixtures – 345KV Line; 361.0, Structures and Improvements; 362.2, Station Equipment – Held for Reuse; 364.0, Poles, Towers and Fixtures; 365.0, Overhead Conductors and Devices; 366.0, Underground Conduit; 369.1, Services – Overhead; 369.2, Services – Underground; 371.0, Installations on Customer Premises; 373.0, Street Lighting and Security Systems; and 390.0, Structures and Improvements.

Q. What is the basis for the Depreciation Panel's changed net salvage estimates?

A. Based on the Depreciation Panel's testimony on page 11, line 18, through page 15, line 19, the sole reason I can perceive for changing the Company's proposed net salvage percents is to reduce the Company's proposed depreciation expense accruals. This is not the meaning of depreciation. The purpose of depreciation is a rational and systematic manner for recovering the full service value of an asset over the life of the asset, where service value includes original cost and the net salvage component. The Depreciation Panel moves away from this

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1 fundamental principle by suggesting that an "alternative methodology" be used  
2 for establishing the net salvage factor to be included in the depreciation rates for  
3 certain electric plant accounts.

4 Q. Please describe the Depreciation Panel's "alternative method".

5 A. The proposed "alternative method" can best be described as an approach to  
6 retain the currently used net salvage factors reflected in the Company's  
7 depreciation rates and in the calculation of the theoretical reserve if the  
8 Depreciation Panel, without specifying any particular quantification parameters,  
9 considers the annual depreciation accrual related to net salvage for an account  
10 to be somehow and to some degree out of line with recent net salvage  
11 experience.

12 Q. Do you recommend that the Commission adopt the Depreciation Panel's  
13 "alternative methodology"?

14 A. No, I do not.

15 Q. Why not?

16 A. The Depreciation Panel is proposing that the net salvage component of the  
17 depreciation rate for some accounts be adjusted in order to produce an annual  
18 depreciation expense for net salvage that will "more closely reflect the actual  
19 dollars of net salvage incurred" as the Panel states on page 12 of its testimony.

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1 That approach varies from the traditional approach of establishing the net  
2 salvage component of depreciation rates, but does so without regard to the  
3 sound principles upon which the traditional approach is based.

4 Q. What statistical base should be used to estimate the net salvage factor?

5 A. The statistical base, according to generally accepted practice should be the  
6 historical net salvage costs as a percent of the original cost of the plant assets  
7 retired over a reasonably long period of time. For example, the net salvage  
8 factors in the Gannett Fleming study generally resulted from analyses of net  
9 salvage as a percent of original cost of the plant retired over the period from  
10 1965-2007. The Depreciation Panel's approach is based on a much shorter view  
11 of only 5 years.

12 Q. If current depreciation expense related to net salvage exceeds actual current  
13 expenditures for net salvage, will that result in charges to current customers at a  
14 price level that will likely exist at the time plant is retired in the future?

15 A. No. Although the reliance on historical indications of net salvage as a percent of  
16 the original cost retired for most plant accounts results in the collection of net  
17 salvage costs at a future price level, it is a price level that will likely be less than  
18 the price level that will exist when the plant in service is retired. Reliance on the  
19 historical indications will reflect net salvage depreciation accruals at the price  
20 level at the time of retirement only if there are substantial improvements in  
21 technology, comparable or lesser environmental regulations and related costs

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1 and a significant reduction in inflation. In other words, the cost of doing business  
2 must decrease over time, but that is contrary to usual experience and  
3 expectation.

4  
5 For example, the net salvage factors, that is the net salvage costs divided by the  
6 original cost of the assets retired and expressed as a percentage, are related to  
7 the retirement of plant that on average is significantly younger than the average  
8 service life of the investment in plant in service, on an original cost dollar  
9 weighted basis. For example, using an account to which the Depreciation Panel  
10 proposes that its "alternative methodology" be applied, the average age of  
11 retirements of Account 369, Services, during the period 1938 through 2007 was  
12 approximately 25 years. That age is approximately half of the average life of 52  
13 years that I have estimated for this account.

14  
15 The average net salvage factor related to the retirements from this account  
16 during the period of 1965-2007 was approximately negative 100 percent. Thus,  
17 after 25 years in service, the plant was retired and the net cost to remove the  
18 plant, as a result of inflation, technological changes and other factors, was over  
19 100 percent of the original cost to install the plant that was retired.

20  
21 The future retirements of the total current overhead services in service will have  
22 an average age that actually exceeds the average life. Thus, future retirements

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1 will be plant that has been in service more than two times as long as the plant  
2 that has been retired. For retirements of plant at such ages to be accompanied  
3 by negative net salvage that is 100 percent of the cost to install that plant, which  
4 is my estimate for this account, there will have to be a reduction in the rate of  
5 inflation, adjusted for technological improvements, over the time that passes  
6 before the property is retired. In fact, because those future retirements are going  
7 to have an average age approximately two times as long as the average age of  
8 the property already retired, the rate of inflation adjusted for technological  
9 improvements will need to be about one-half of the rate that occurred during the  
10 life of the plant that was retired during the period 1965-2007 for Central Hudson  
11 to avoid under-recovering the cost of removal. That is clearly not a reasonable  
12 expectation. For these reasons, estimates of negative net salvage factors based  
13 on the traditional long look backward will almost certainly result in the recovery of  
14 *less*, not more, net salvage than will likely be incurred.

15  
16 Q. Is it generally accepted practice for current customers to contribute toward future  
17 costs to remove plant at a price level that is higher than today's price level?

18 A. Yes. The future cost to remove an item of plant is considered part of the service  
19 value that it renders to current customers and a ratable portion of such costs is  
20 generally accepted to be chargeable to current customers in the setting the net  
21 salvage factors of depreciation rates. That is the definition of depreciation, i.e.,  
22 the loss in service value during a specific period. Moreover, as these future

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1 costs are recovered from current customers, they are deducted from rate base.  
2 That is, as customers provide for the future cost of removal they receive a return  
3 on such amounts in the form of a reduction in the return that they otherwise  
4 would have to pay the utility until such time as the utility incurs the cost. It is the  
5 generally accepted practice that customers who benefit from the plant, or  
6 consume its service value, are expected to pay for such service. Customers  
7 paying today for future costs of removal and receiving a return on such payments  
8 is no different than the utility recovering today amounts that it invested many  
9 years ago to construct plant, but on which it earns a return until the amount is  
10 recovered from customers.

11 Q. Are current net salvage accruals generally greater than net salvage costs  
12 currently incurred?

13 A. Yes. The difference in price level as I have described is a contributing factor.  
14 Another significant factor is that the current experience is related to plant  
15 retirements that largely come from an older, smaller plant base that was  
16 constructed to serve fewer customers, whereas the current net salvage accruals  
17 relate to the higher investment in plant currently in service as is required to serve  
18 a much larger customer base. As I have explained, however, this result is  
19 consistent with the accepted practice of spreading ultimate costs of retirement  
20 over the life of the plant that is providing service.

21 Referring to Account 369 for overhead services, the plant balance at the  
22 end of 2007 was \$32 million. Therefore, utilizing the Company proposal of 100%

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1 negative net salvage and a 3.84% accrual rate, the portion of the accrual rate  
2 related to net salvage approximates 1.85 percent. Thus, the 1.85% accrual rate  
3 for net salvage applied to the current plant balance produces an accrual amount  
4 for each year of \$592,000. This is more than the most recent five-year average  
5 of \$159,958 (Depreciation Panel refers to this amount as \$159,000) as shown on  
6 page III-346 of the Depreciation Study.

7 Q Is it reasonable to be accruing that much more than what is currently being  
8 incurred?

9 A. Absolutely, when you consider that the \$159,958 annual average of negative net  
10 salvage incurred over the last five-years was related to \$177,588 in average  
11 annual retirements over the same period (also shown on page III-346 of the  
12 depreciation study) and the fact that the approximate plant balances from which  
13 these retirements resulted was \$2.0 million. Consequently, the plant balance has  
14 increased by 16 times (from \$2.0 in year 1958 to \$32.0 in year 2007), yet the  
15 annual accrual for net salvage has only increased three and one-half times (from  
16 \$160,000 to \$592,000) during that time. In other words, it is not justified to  
17 reduce the proposed negative net salvage percent for overhead services from  
18 100% negative net salvage, to 75% negative net salvage as the Depreciation  
19 Panel suggests just because the accrual amount is significantly higher than  
20 recently incurred amounts.

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1 Continuing to refer to Account 369.1, the statistical data for the period 1965  
2 through 2007 as set forth on pages III-344 through III-346 of the Depreciation  
3 Study shows the following. Over the course of these 43 years, there has been  
4 \$3,582,226 of retirements from overhead services recorded with associated cost  
5 of removal totaling \$4,650,751 and gross salvage totaling \$633,598.  
6 Consequently, the historical indications for the last 43 years set forth a net  
7 salvage percent of negative 112%. Additionally, the rolling five-year average for  
8 the 43 years is close to or over 100% negative each time. This shows quite a  
9 strong historical trend indicating at least 100% negative net salvage with no  
10 current expectation that the future will be different from the past. The negative  
11 100% net salvage for overhead services is supported by historical data, meets  
12 the definition of depreciation and has been determined by sound methodology.

13 Q. Will you please address some of the other accounts to which the Depreciation  
14 Panel's "alternative methodology" pertains?

15 A. Yes, I will discuss four of the other major electric accounts to which the  
16 Depreciation Panel recommends its "alternative methodology" should apply.  
17 These accounts are 362.0, 362.2, 364.0 and 365.0. The analysis for Accounts  
18 362.0 and 362.2 have been combined for net salvage analyses. The net salvage  
19 data available for analyses was from 1965 through 2007. As shown on page III-  
20 324 through III-326 of the Depreciation Study, the Company has experienced  
21 \$9,708,381 of plant retired with associated cost of removal of \$3,644,632 and

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1 gross salvage of \$895,732. This is substantial data on which to develop an  
2 estimate of negative net salvage. Net salvage was negative \$2,748,900  
3 (\$895,732 - \$3,644,632) during that time and the overall net salvage percent was  
4 negative 28 percent ( $\$2,748,900/\$9,708,381$ ). In addition, the trend since the  
5 early 1990s has increased from negative 26 percent to negative 37 percent.  
6 There is no expected change in the near future, so the negative 30 percent net  
7 salvage rate proposed by the Company is quite reasonable. It is not clear  
8 whether the Depreciation Panel applied their selective alternative approach to  
9 come up with their estimate of negative 20 percent or whether they decided to  
10 just maintain the current estimate.

11 The net salvage percent recommended by the Company for Account 364.0,  
12 Poles and Fixtures, is negative 34 percent as compared to the Depreciation  
13 Panel's recommendation of negative 30 percent. The Company estimate is  
14 based on the overall historical analysis for the period 1965-2007 of negative 36  
15 percent, the trend to a more negative percent since the early 1990s and the  
16 industry range of negative 25 to negative 50 percent. This analysis is based on  
17 \$18,234,638 plant retired and \$6,607,009 of recorded negative net salvage  
18 during 1965-2007. The Depreciation Panel estimate of negative 30% is  
19 determined by applying a subjectively selected "alternative method" which serves  
20 only to reduce depreciation accruals.

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1 The final account that I will specifically address is Account 365.0, Overhead  
2 Conductors and Devices. The Company proposal is negative 40 percent net  
3 salvage, while the Depreciation Panel proposes negative 30 percent. As shown  
4 on pages III-332 through III-334 of the Depreciation Study, the 43-year historical  
5 analyses support negative 40 percent. This is based on \$16,079,067 plant  
6 retired and \$6,463,383 of associated net salvage. The recent trend of net  
7 salvage exceeds 70% negative, however, the industry range is negative 20% to  
8 negative 50%. There are strong indicators supporting the Company proposal of  
9 negative 40%. It is not clear if the Depreciation Panel has applied its alternative  
10 method" or if it is simply attempting to maintain the current negative net salvage  
11 percent estimate.

12 All of the other accounts or subaccounts in this group present the same issues  
13 respecting the net salvage percents. A well supported net salvage estimate for  
14 the Company rejected by the Depreciation Panel in favor of an "alternative  
15 method" devised by the Depreciation Panel for selected accounts which serves  
16 only to reduce depreciation expense.

17 Q. Has the Depreciation Panel's "alternative method" of determining the appropriate  
18 net salvage factor for select accounts been recognized by regulatory bodies or  
19 authorities in the field of depreciation?

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1 A. The most widely-used textbooks on the topic of depreciation, are Public Utility  
2 Depreciation Practices by National Association of Regulatory Utility  
3 Commissioners, and Depreciation Systems, by Frank K. Wolf and W. Chester  
4 Fitch, do not recognize this approach. The Uniform System of Accounts does not  
5 recognize this alternative method. Neither do state regulatory bodies of which I  
6 am aware in my experience addressing depreciation matters in many states nor  
7 does FERC recognize this alternative method.

8 In addition, in response to Central Hudson Interrogatory No. 201 attached as  
9 Exhibit \_\_\_\_(JJS-2R) the Depreciation Panel acknowledges that the method it is  
10 proposing is neither the traditional method as described in NARUC's publication  
11 Public Utility Depreciation Practices nor a second method that NARUC reports as  
12 having been adopted by some regulators. Furthermore, the traditional method  
13 referred to by NARUC pertains to the traditional method of spreading cost of  
14 removal and salvage values over the life of plant by including net salvage values  
15 in the depreciation rate and the other method is to instead record cost of removal  
16 and/or salvage as current operating costs. Neither approach pertains to a  
17 method of determining the negative net salvage factor to be included in  
18 depreciation rates as the Depreciation Panel suggests be done in this  
19 proceeding. Attached as Exhibit \_\_\_\_(JJS-3R) is the page 157 from NARUC's  
20 Public Utility Depreciation Practices to which the Depreciation Panel refers in its  
21 response to Central Hudson Interrogatory No. 201.

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1 In my experience this "alternative method" is unique to the few circumstances  
2 presented by the Depreciation Panel in New York without any valid explanation  
3 as to why these New York utilities are different from others in any way. In  
4 addition the circumstances in New York to which the Depreciation Panel refers  
5 on page 15 of its testimony regarding where the "alternative method" has been  
6 "accepted" are very limited (only 2) and, in my view, are not of a nature that a  
7 depreciation professional would consider to be in any way precedential or  
8 authoritative.

9 Q. Why not?

10 A. Because, as the Depreciation Panel acknowledges in response to Central  
11 Hudson Interrogatory No. 77 attached as Exhibit \_\_\_\_ (JJS-4R), in the last  
12 Central Hudson rate case the "alternative method" was "basically accepted by  
13 Central Hudson" within the context of a Joint Proposal which I understand to be  
14 similar to an agreement among parties to a proceeding to settle a wide range of  
15 issues on a global basis rather than to present each to the regulatory authority for  
16 individual determination. That the "alternative method" might have been  
17 incorporated to some extent in the setting of Central Hudson's net salvage rates  
18 on that basis is not a circumstance that I as a depreciation professional consider  
19 precedential or authoritative as an established or even acceptable depreciation  
20 practice and in my view neither would other depreciation professionals.

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1 In the other example referred to by the Depreciation Panel, a New York State  
2 Electric and Gas rate case (Case 05-E-1222) the "acceptance" was, as the  
3 Depreciation Panel indicates in Exhibit \_\_\_\_(JJS-4R), in the form of the  
4 Commission adopting the Recommended Decision of the Administrative Law  
5 Judges in that case. However, the Administrative Law Judges provided no  
6 depreciation theory justification for recommending Staff's net salvage approach  
7 but, rather, merely adopted the results while further recommending that the  
8 matter be "re-examined" in the future. Attached as Exhibit \_\_\_\_(JJS-5R) is the  
9 relevant portion of that Recommended Decision. It is not a circumstance that I as  
10 a depreciation professional consider precedential or authoritative as an  
11 established or even acceptable depreciation practice and in my view neither  
12 would other depreciation professionals.

13 GAS PLANT

14 Q. Has the Depreciation Panel recommended any changes from the Company  
15 proposals related to depreciation of gas plant?

16 A. It has recommended very few changes. Despite the Depreciation Panel finding  
17 fault with Company proposed life estimates for many electric accounts and  
18 recommending an "alternative method" for establishing net salvage rates be  
19 employed with respect to certain select electric accounts, the Depreciation Panel  
20 finds all of the average service lives and survivor curves proposed by the

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1 Company for gas plant accounts to be acceptable. This is despite the  
2 Company's proposals respecting electric and gas plant accounts having been  
3 developed in the same manner and through application of the same generally  
4 accepted depreciation study approaches. The Depreciation Panel also agrees to  
5 all net salvage percents proposed by the Company as developed in accordance  
6 with generally accepted salvage analysis principles rather than any "alternative  
7 method save for the gas distribution mains and services accounts. For those two  
8 accounts the Depreciation Panel recommends the traditional depreciation  
9 expense accrual methodology for 60% negative net salvage be applied and that  
10 the traditional accounting treatment for actual negative net salvage incurred be  
11 substituted by an accounting method that results in some portion of any negative  
12 net salvage in excess of 60% of the book cost of plant retired to be charged to  
13 the depreciation reserve (the standard account for actual charges for negative  
14 net salvage) and some to O&M expense rather than the depreciation reserve.  
15 This approach is described and addressed more fully in the rebuttal testimony of  
16 the Company's Accounting Panel.

17 Q. Is the negative 60% net salvage factor for distribution gas mains and services  
18 based on any standard approach to establishing net salvage factors?

19 A. No. Actually the Depreciation Panel has acknowledged that it is far short of the  
20 negative net salvage factors that would generally be applicable to these accounts

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1 conceding that factors of negative 88% for gas distribution mains and negative  
2 302% for gas services are indicated by Company experience during 2003-2007.

3 Q. Have you reviewed the Company's Accounting Panel rebuttal testimony on this  
4 subject?

5 A. Yes I have, and I agree with their assessments, conclusions and  
6 recommendations.

7 Q. Has the procedure recommended by the Depreciation Panel of charging a  
8 portion of negative net salvage incurred to O&M expense rather than the  
9 depreciation reserve been adopted by regulatory commissions?

10 A. In my experience with depreciation matters across the country and in Canada, I  
11 am not aware of its use other than by the New York Commission.

12 Q. Does this approach serve to recover service value in a rational or systematic  
13 manner?

14 A. Not really. The portion of service value that is recovered through depreciation  
15 rates is rational and systematic up to any artificial limitation as proposed by the  
16 Depreciation Panel as is the amount of actual negative net salvage incurred that  
17 is charged to the depreciation reserve again up to any artificial limitation as  
18 proposed by the Depreciation Panel, but any portion of actual negative net  
19 salvage that is charged to O&M expense is not. Therefore, the O&M expense

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1 will fluctuate each year based on the amount of negative net salvage incurred as  
2 explained by and with the consequences described by the Company's  
3 Accounting Panel in its Rebuttal Testimony.

4 Q. Are there any other comments you would like to make regarding the Depreciation  
5 Panel's proposed accounting and rate treatment for negative net salvage for gas  
6 distribution mains and services?

7 A. Yes. From a depreciation theory perspective the proposed approach presents  
8 intergenerational inequity concerns respecting those customers that must pay for  
9 negative net salvage actually incurred in recent years via the inclusion of an  
10 O&M expense rate allowance in the Company's rates during times of high  
11 expense years due to heavy removal costs, yet may not have been a customer  
12 during the time the asset rendered a proportionate amount of its services.

13 COMMON PLANT

14 Q. Have you reviewed the Company's Accounting Panel rebuttal testimony on the  
15 subject of amortization of the Company's common plant investment.

16 A. Yes I have.

17 Q. Do you have any comments you would like to make on the subject in addition to  
18 those discussed by the Company's Accounting Panel?

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1 A. First, I do not consider the Depreciation Panel's recommendations as to average  
2 service life (that is amortization period) to be based on a full and sound analysis  
3 of all relevant factors respecting the common plant accounts to which the  
4 Company applies the amortization or Vintage Accounting approach. These  
5 which would include, among others, those related to electronic data processing  
6 equipment related to general office functions and operation of Central Hudson's  
7 electric and gas supply systems and telecommunications facilities. I have  
8 reviewed the Depreciation Panel's testimony and exhibits and find minimal  
9 discussion of the common plant accounts. The Depreciation Panel's position is  
10 that no changes to the average service life or rate for any common plant account  
11 to which amortization is proposed by Central Hudson are warranted. The  
12 Depreciation Panel does not accept the implementation of amortization for  
13 certain common plant, but also does not attempt to determine any alternative  
14 method for these accounts other than to use past rates that are outdated but,  
15 ironically, are also applied by Central Hudson under the amortization or Vintage  
16 Accounting method.

17 With respect to the method of analysis used by the Depreciation Panel to support  
18 the reasonableness of the use of the average service lives that its testimony  
19 implies (do not change amortization periods), the Panel has provided no  
20 explanation. The result of the Depreciation Panel's undisclosed approach or  
21 method to establishing average service lives for the common plant accounts,

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1           however, is the continued use of generally longer average service lives that  
2           serve to delay capital recovery as compared to those in the Gannett Fleming  
3           study.

4           I also believe that customers benefit from the amortization approach due to its  
5           effect of stabilizing depreciation expense that will be booked each year once an  
6           asset is placed in service.

7           Finally, I would add that a very large percentage of utilities across the United  
8           States and Canada have implemented amortization accounting for certain  
9           general or common plant since first adopted by the Florida commission during  
10          the early 1990s.

11    Q.     Does this conclude your pre-filed rebuttal testimony?

12    A.     Yes, it does.