

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY, INC. FOR AN)	CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC AND GAS)	C/W
BASE RATES)	CASE NO. 2007-00564

ATTORNEY GENERAL'S PRE-FILED TESTIMONY

Comes now the intervenor, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention, and files the following testimony in the above-styled matter.

Respectfully submitted,
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this 30th day of October, 2008


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In the Matter of:

APPLICATION OF LOUISVILLE GAS)
AND ELECTRIC COMPANY FOR AN) CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC)
AND GAS BASE RATES)

DIRECT TESTIMONY
AND EXHIBITS
OF
ROBERT J. HENKES
PERTAINING TO THE ELECTRIC
CASE

On Behalf of the Office Of Rate Intervention Of The
Attorney General Of The Commonwealth Of Kentucky

October 29, 2008

**Louisville Gas and Electric Company
Case No. 2008-00252 Electric Rate Case
Direct Testimony of Robert J. Henkes**

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APPENDIX I: Prior Regulatory Experience of Robert J. Henkes

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I. STATEMENT OF QUALIFICATIONS

Q. WOULD YOU STATE YOUR NAME AND ADDRESS?

A. My name is Robert J. Henkes and my business address is 7 Sunset Road, Old Greenwich, Connecticut 06870.

Q. WHAT IS YOUR PRESENT OCCUPATION?

A. I am Principal and founder of Henkes Consulting, a financial consulting firm that specializes in utility regulation.

Q. WHAT IS YOUR REGULATORY EXPERIENCE?

A. I have prepared and presented numerous testimonies in rate proceedings involving electric, gas, telephone, water and wastewater companies in jurisdictions nationwide including Arkansas, Delaware, District of Columbia, Georgia, Kentucky, Maryland, New Jersey, New Mexico, Pennsylvania, Vermont, the U.S. Virgin Islands and before the Federal Energy Regulatory Commission. A complete listing of jurisdictions and rate proceedings in which I have been involved is provided in Appendix I attached to this testimony.

Q. WHAT OTHER PROFESSIONAL EXPERIENCE HAVE YOU HAD?

A. Prior to founding Henkes Consulting in 1999, I was a Principal of The Georgetown Consulting Group, Inc. for over 20 years. At Georgetown Consulting I performed the same type of consulting services as I am currently rendering through Henkes

1 Consulting. Prior to my association with Georgetown Consulting, I was employed
2 by the American Can Company as Manager of Financial Controls. Before joining
3 the American Can Company, I was employed by the management consulting
4 division of Touche Ross & Company (now Deloitte & Touche) for over six years.
5 At Touche Ross, my experience, in addition to regulatory work, included numerous
6 projects in a wide variety of industries and financial disciplines such as cash flow
7 projections, bonding feasibility, capital and profit forecasting, and the design and
8 implementation of accounting and budgetary reporting and control systems.

9

10 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

11 A. I hold a Bachelor degree in Management Science received from the Netherlands
12 School of Business, The Netherlands in 1966; a Bachelor of Arts degree received
13 from the University of Puget Sound, Tacoma, Washington in 1971; and an MBA
14 degree in Finance received from Michigan State University, East Lansing,
15 Michigan in 1973. I have also completed the CPA program of the New York
16 University Graduate School of Business.

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II. SCOPE AND PURPOSE OF TESTIMONY

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Q. WHAT IS THE SCOPE AND PURPOSE OF THIS TESTIMONY?

A. I was engaged by the Office of Rate Intervention of the Attorney General of Kentucky (“AG”) to conduct a review and analysis and present testimony in the matter of the petition of Louisville Gas and Electric Company (“LG&E” or the “Company”) for an increase in its base rates for electric service.

The purpose of this testimony is to present to the Kentucky Public Service Commission (“KPSC” or the “Commission”) the appropriate electric capitalization and overall rate of return, rate base and pro forma test period operating income, as well as the appropriate electric revenue requirement for the Company in this proceeding.

In the determination of the AG’s recommended capitalization and overall rate of return, rate base, operating income and revenue requirement, I have relied on and incorporated the recommendations of the following other expert witnesses engaged by the AG in this proceeding:

1. Dr. J. Randall Woolridge, concerning the appropriate capital structure ratios, cost rates for short- and long term debt, the return on common equity, and the resulting overall rate of return for the Company in this proceeding;
2. Mr. Michael Majoros, concerning the appropriate depreciation rates to be adopted by the Commission in this case; and

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1 3. Mr. Glenn A. Watkins, concerning LG&E's proposed electric temperature
2 normalization adjustment.

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In developing this testimony, I have reviewed and analyzed the Company's July 29, 2008 filing; supporting testimonies, exhibits, filing requirements and workpapers; the Company's responses to initial and follow-up data requests by the KPSC Staff, AG and other intervenors; and other relevant financial documents and data.

III. SUMMARY OF FINDINGS AND CONCLUSIONS

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN THIS CASE.

A. I have reached the following findings and conclusions in this case:

1. The electric revenue requirement determination in this case should be based on LG&E's capitalization. This revenue requirement determination base has also been proposed by the Company in this rate proceeding and has been consistently applied by the Commission in LG&E's previous electric base rate proceedings [Schedule RJH-1, line 1].
2. The appropriate adjusted electric capitalization as of April 30, 2008, the end of the test period in this case, amounts to \$1.780.079 million which is \$3.949 million lower than the adjusted electric capitalization of \$1,784.028 million proposed by LG&E [Schedule RJH-1, line 1 and Schedule RJH-2].
3. The AG's expert rate of return witness, Dr. Woolridge, has at this time recommended a short-term debt cost rate of 2.63%, long-term debt cost rate of 5.30%, and a return on equity of 9.90%. These recommended capital cost rates, together with Dr. Woolridge's recommended capital structure ratios produce the AG's recommended overall rate of return on capitalization for LG&E's electric operations of 7.65%. By comparison, the Company has proposed an overall rate of return on capitalization of 8.35% for its electric operations [Schedule RJH-2].

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1 The recommended rate of return on capitalization of 7.65% is equivalent to
2 a rate of return of 7.46% on the Company's adjusted electric rate base
3 [Schedule RJH-3, line 16]. The Company has not presented an equivalent
4 proposed overall return on rate base number for its electric operations.

5 4. The appropriate pro forma adjusted electric rate base measured as of April
6 30, 2008, the end of the test period in this case, amounts to \$1,824.594
7 million. The recommended return on rate base amounts to 7.46% [Schedule
8 RJH-3].

9 5. The appropriate pro forma test period electric operating income amounts to
10 \$168.733 million, which is \$29.176 million higher than LG&E's proposed
11 test period electric operating income of \$139.557 million [Schedule RJH-1,
12 line 4 and schedule RJH-4].

13 6. The appropriate revenue conversion factor to be used for rate making
14 purposes in this case is .62143063. This factor has been used by both the
15 Company and the AG [Schedule RJH-1, line 6].

16 7. The application of the recommended overall rate of return of 7.65% to the
17 recommended capitalization of \$1,780.079 million, combined with the
18 recommended pro forma test period operating income of \$168.733 million
19 and the revenue conversion factor of .62143063 indicates that the Company
20 has an annual revenue *excess* for its electric operations of \$52.375 million.
21 This represents a difference of \$67.516 million from the Company's
22 proposed annual electric revenue *deficiency* of \$15.141 million [Schedule
23 RJH-1, lines 1-7].

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IV. REVENUE REQUIREMENT ISSUES

A. CAPITALIZATION

Q. PLEASE DESCRIBE THE COMPANY’S PROPOSED TEST YEAR-END ADJUSTED CAPITALIZATION FOR ITS ELECTRIC OPERATIONS IN THIS CASE.

A. The Company has proposed an adjusted electric capitalization of \$1,784.016 million. As shown on Rives Exhibit 2, the starting point of the Company’s proposed pro forma adjusted electric capitalization is the actual per books total company capitalization as of 4/30/08 of approximately \$2,180.475 million, consisting of short term debt, long term debt, and common equity. The Company then applied an electric non-ECR rate base ratio of 79.94% to its actual 4/30/08 capitalization of \$2,180.475 million, resulting in its proposed non-ECR electric capitalization balance of \$1,743.072 million. Next, the Company made 4 pro forma electric capitalization adjustments in order to arrive at its proposed adjusted electric capitalization of \$1,784.016 million. These 4 electric capitalization adjustments concern (1) the removal of certain Trimble County inventories; (2) the removal of LG&E’s investment in the Ohio Valley Electric Corporation (OVEC); (3) the addition of the Job Development Tax Credit balance allocated to electric operations; and (4) the addition of the Advanced Coal Investment Tax Credit balance.

1 **Q. IS THE METHOD USED BY THE COMPANY IN THE DETERMINATION**
2 **OF ITS PROPOSED ADJUSTED CAPITALIZATION CONSISTENT WITH**
3 **THE METHOD PRESCRIBED BY THE COMMISSION IN THE**
4 **COMPANY’S PRIOR RATE CASE IN CASE NO. 2003-00433 AND THE**
5 **RATE CASE BEFORE THAT IN CASE NO. 1998-426?**

6 A. No. The method currently prescribed by the Commission and used in setting
7 LG&E’s rates in its prior two rate cases first calculates the allocated electric
8 capitalization by multiplying the total company capitalization by an electric rate
9 base ratio that has *not* first been adjusted by the removal of ECR-related rate base,
10 as the Company has done in the instant rate proceeding. As the next step, the
11 Commission-prescribed method would then remove all ECR-related capital from
12 the electric-allocated capitalization.

13

14 **Q. HAS THE COMPANY PRESENTED THE ELECTRIC-ALLOCATED**
15 **ADJUSTED CAPITALIZATION AS DETERMINED IN ACCORDANCE**
16 **WITH THE COMMISSION-PRESCRIBED CALCULATION METHOD?**

17 A. Yes. The Company has presented the calculations and end-results of the
18 Commission-prescribed methodology in Appendix B of Rives Exhibit 2. As shown
19 in Appendix B, under the Commission-prescribed calculation methodology, the
20 Company’s electric-allocated adjusted capitalization amounts to \$1,780.090 million
21 as compared to the Company’s proposed electric-allocated adjusted capitalization of
22 \$1,784.016 million.

23

1 **Q. WHAT MAKES UP THE DIFFERENCE BETWEEN THE COMMISSION-**
2 **PRESCRIBED ELECTRIC-ALLOCATED CAPITALIZATION**
3 **METHODOLOGY AND THE CALCULATION METHODOLOGY**
4 **PROPOSED BY THE COMPANY?**

5 A. The difference is that the Commission-prescribed calculation method *does not*
6 recognize the ECR-related deferred income taxes in removing the ECR-related net
7 rate base investment from the electric capitalization whereas the Company-
8 proposed calculation method in this case *does* recognize ECR-related deferred
9 income taxes in calculating the adjusted electric capitalization.

10

11 **Q. HAS THIS DEFERRED TAX ISSUE PREVIOUSLY BEEN ADDRESSED BY**
12 **THE COMMISSION?**

13 A. Yes. In both Case No. 1998-426 and the instant rate proceeding, the Company has
14 argued that if ECR-related deferred taxes are considered in the determination of the
15 Company's electric rate base, they should similarly be considered in the
16 determination of the Company's capitalization, otherwise there would not be an
17 accurate reconciliation between the Company's electric rate base and capitalization.
18 However, the Commission has consistently held that since deferred taxes represent
19 non-investor supplied funds that are not funded by the Company's capitalization,
20 they should not be considered in the determination of the Company's adjusted
21 capitalization. And the Commission has long recognized that a complete
22 reconciliation between a utility's rate base and capitalization may be an appropriate
23 theoretical concept, in practice a utility's rate base is rarely equal to its

1 capitalization. In this regard, the Commission made the following rulings in its
2 Order on Rehearing in LG&E’s Case No. 1998-426:

3 In its February 9, 2000 Order, the Commission granted rehearing on three
4 issues raised by LG&E: the amount of environmental surcharge [ECR] to
5 be excluded from LG&E’s capitalization ...

6
7 LG&E argues that the Commission’s adjustment to LG&E’s capitalization is
8 in error because the adjustment did not recognize Pollution Control Deferred
9 Income Taxes (“PC DIT”). By not recognizing the PC DIT, LG&E claims
10 that the adjustment to its capitalization was excessive and resulted in an
11 overstatement of its revenue sufficiency. LG&E contends that when
12 determining the revenue sufficiency, the exclusion of the environmental
13 surcharge components in base rate calculations should be neutral. To
14 achieve this neutrality, LG&E states that the environmental surcharge
15 amounts removed from its capitalization must be the same as the amounts
16 removed from its rate base. Finally, LG&E takes the position that the April
17 6, 1995 Order establishing its environmental surcharge equated its
18 environmental surcharge rate base with its environmental surcharge
19 capitalization.

20
21 One of the basic theories of rate-making is the concept that a utility’s net
22 original cost rate base should be equal to its capitalization. While accepting
23 this theoretical concept, the Commission has long recognized that a utility’s
24 rate base is rarely equal to its capitalization....

25
26 In determining a utility’s revenue requirements, the Commission does not
27 adjust the rate base or capitalization to be equal. Rather, the Commission’s
28 Orders state two different rates of return; one on rate base and one on
29 capital. But when the rate base and capital are multiplied by their respective
30 rates of return, they produce the same net operating income found
31 reasonable by the Commission..

32
33 The Commission is not persuaded by the evidence or arguments presented
34 by LG&E...

35
36 LG&E has acknowledged that the PC DIT are not funded by its
37 capitalization, but are the result of differences between book and tax
38 accounting practices, and requirements prescribed by the applicable tax
39 code...

40
41 Therefore, the adjustments to LG&E’s rate base and capitalization to
42 remove the impacts of its environmental surcharge will remain as originally
43 calculated in the January 7, 2000 Order.

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4 **Q. HAS THE COMPANY IN THE INSTANT PROCEEDING PRESENTED**
5 **ANY ARGUMENTS THAT ARE DIFFERENT FROM THE ARGUMENTS**
6 **IT PRESENTED IN CASE NO. 1998-426.**

7 A. No, it has not.

8

9 **Q. COULD YOU NOW DISCUSS YOUR RECOMMENDED ADJUSTED**
10 **ELECTRIC CAPITALIZATON BALANCE?**

11 A. Yes. Based on the previously discussed findings and conclusions, I recommend
12 that the adjusted electric-allocated capitalization be determined based on the
13 Commission-prescribed calculation method. As shown on Schedule RJH-2, page 2
14 this results in a recommended adjusted electric-allocated capitalization of
15 \$1,780.079 million.

16

17

18 **B. RATE OF RETURN ON CAPITALIZATION**

19

20 **Q. PLEASE DESCRIBE THE AG'S RECOMMENDED RATE OF RETURN ON**
21 **CAPITALIZATION.**

22 A. As shown on Schedule RJH-2, page 1, the AG recommends an overall return on
23 capitalization of 7.65% as compared to the Company's proposed overall rate of
24 return number of 8.35%. The AG-recommended overall rate of return number is

1 based on the capital structure ratios and capital cost rates recommended by the
2 AG's rate of return expert, Dr. Woolridge. As shown on Schedule RJH-2, page 1,
3 Dr. Woolridge recommends a short-term debt cost rate of 2.63%, long-term debt
4 cost rate of 5.30% and a return on equity of 9.90%.

5
6 **Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL IN THIS CASE**
7 **THAT THE COMPANY'S RETURN REQUIREMENT BE DETERMINED**
8 **BY APPLYING THE APPROPRIATE ELECTRIC OVERALL RATE OF**
9 **RETURN TO THE ADJUSTED ELECTRIC CAPITALIZATION AT THE**
10 **END OF THE TEST YEAR?**

11 A. Yes. The Company's proposed return requirement approach in this case is
12 consistent with the return requirement rate making policy adopted by the
13 Commission in all of LG&E's prior base rate proceedings.

14
15
16 **C. RATE BASE AND RETURN ON RATE BASE.**

17
18 **Q. HAS THE COMPANY PRESENTED AN ADJUSTED ORIGINAL COST**
19 **RATE BASE FOR ITS ELECTRIC OPERATIONS IN ITS FILING**
20 **SCHEDULES IN THIS PROCEEDING?**

21 A. Yes. As shown on Rives Exhibits 3 and 4, the Company is proposing an adjusted
22 original cost rate base of \$1,795.222 million.

23

1 **Q. HAVE YOU DETERMINED THE APPROPRIATE ADJUSTED ORIGINAL**
2 **COST RATE BASE FOR LG&E'S ELECTRIC OPERATIONS IN THIS**
3 **CASE?**

4 A. Yes, this recommended adjusted electric original cost rate base has been developed
5 on schedule RJH-3. The starting point is LG&E's proposed unadjusted electric
6 original cost rate base of \$1,826.018 million measured as of the end of the test year,
7 April 30, 2008. From that starting point, I then removed the Company's proposed
8 net ECR rate base balance¹ of approximately \$13.285 million to arrive at the
9 Company's proposed electric rate base balance of \$1,812.733 million that excludes
10 all ECR rate base items not rolled into base rates. Finally, I reflected total net rate
11 base additions of \$11.861 million to arrive at my recommended adjusted original
12 cost rate base for LG&E's electric operations of \$1,824.594 million. This
13 recommended adjusted rate base of \$1,824.594 million is \$29.372 million higher
14 than the Company's proposed adjusted rate base of \$1,795.222 million.

15

16 **Q. WHY IS YOUR RECOMMENDED ADJUSTED ORIGINAL COST RATE**
17 **BASE \$29.372 MILLION HIGHER THAN THE COMPANY'S PROPOSED**
18 **ORIGINAL COST RATE BASE?**

19 A. As just discussed, I have reflected non-ECR related rate base adjustments that
20 *increase* the rate base by \$11.861 million whereas the Company has proposed non-
21 ECR related rate base adjustments that *decrease* the rate base by \$17.511 million.

¹ Representing the net of the total ECR rate base balance and the ECR rate base balance rolled into base rates.

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1 This explains why my recommended adjusted rate base is \$29.372 million higher
2 than the Company's proposed adjusted rate base. Below, I have listed the
3 component reasons for this rate base differential of \$29.372 million:

	<u>LG&E Rate Base</u>	<u>AG Rate Base</u>	<u>Difference</u>
4 Depreciation Reserve Adj.	\$(16.723)	\$15.363	\$32.086
5 Remove Prepaid PSC Fees	-	(.502)	(.502)
6 CWC Adjustment	<u>(.788)</u>	<u>(3.000)</u>	<u>(2.212)</u>
7 Total	\$(17.511)	\$11.861	\$29.372

8
9 As shown in the above table, by far the largest reason for the rate base differential is
10 the pro forma impact on the depreciation reserve resulting from LG&E's proposal
11 to increase its test year per books depreciation expenses and AG's recommendation
12 to decrease the test year per books depreciation expenses.

13

14 **Q. PLEASE DISCUSS EACH OF THE RECOMMENDED RATE BASE**
15 **ADJUSTMENTS TOTALING \$11.861 MILLION.**

16 A. The first rate base adjustment of \$15.363 million shown on line 2 of the third
17 column of Schedule RJH-3 is a direct result of the AG's recommended annualized
18 depreciation expense adjustment shown on Schedule RJH-8, line 3. This
19 annualized depreciation expense adjustment will be discussed later in this
20 testimony.

21

22 The second rate base adjustment of \$.502 million shown on line 10 of Schedule
23 RJH-3 represents my recommendation to remove prepaid PSC assessments from the
24 total prepayment balance in rate base. This adjustment follows well-established and
25 long-standing Commission ratemaking policy.

1

2 The third rate base adjustment of \$3 million shown on line 11 of Schedule RJH-3 is
3 to adjust the test year per books cash working capital requirement for the pro forma
4 impact on cash working capital of all of the Company's proposed O&M expense
5 adjustments in this case. In its response to AG-1-15, the Company has
6 acknowledged that the correct cash working capital adjustment resulting from its
7 proposed pro forma O&M expense adjustments should be a reduction of \$3 million
8 rather than the cash working capital reduction of \$.788 million reflected in the
9 Company's as-filed position. It should be noted that the appropriate cash working
10 capital amount to be reflected for ratemaking purposes in this case should
11 ultimately be based on the reflection of all Commission-ordered pro forma test year
12 electric operation and maintenance expenses allowed in this case.

13

14 **Q. HAVE YOU CALCULATED THE APPROPRIATE RETURN ON RATE**
15 **BASE FOR LG&E'S ELECTRIC OPERATIONS IN THIS CASE?**

16 A. Yes, as shown on Schedule RJH-3, lines 14 through 16, the Company's appropriate
17 return on rate base in this case is 7.46%

18

19

20 **D. OPERATING INCOME**

21

22 **Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED AND YOUR**
23 **RECOMMENDED PRO FORMA ELECTRIC OPERATING INCOME FOR**

1 **THE TEST PERIOD IN THIS CASE.**

2 A. The Company’s proposed and my recommended pro forma test year electric
3 operating income positions are summarized on schedule RJH-4. The Company has
4 proposed total pro forma test period electric operating income of \$139.557 million.
5 As summarized on schedule RJH-4, I have made a large number of pro forma
6 electric operating income adjustments which, in total, have the effect of increasing
7 the Company’s proposed test year electric operating income by \$29.176 million to
8 total recommended pro forma test period electric operating income of \$168.733
9 million. Each of the recommended electric operating income adjustments will be
10 discussed in detail in the subsequent sections of this testimony.

11

12 - **Interest Synchronization**

13

14 **Q. DOES THE COMMISSON HAVE A RATEMAKING POLICY**
15 **REGARDING INTEREST SYNCHRONIZATION?**

16 A. Yes. The Commission has a well-established ratemaking policy that the interest
17 expenses to be used as a deduction from pro forma test year taxable income be
18 determined by the application of the weighted cost of debt to the adjusted
19 capitalization allowed by the Commission for ratemaking purposes. This so-called
20 pro forma “synchronized” interest expense level should then replace the per books
21 test year interest expense level that was used as a tax deduction in the determination
22 of the test year income taxes. An income tax adjustment should be made for the
23 difference between the pro forma synchronized interest expenses and the test year

1 per books interest expenses.

2

3 **Q. IS THERE AN ISSUE IN THE MANNER IN WHICH LG&E AND THE AG**
4 **HAVE CALCULATED THEIR RESPECTIVE PRO FORMA**
5 **SYNCHRONIZED INTEREST EXPENSE LEVELS?**

6 A. No. As shown on schedule RJH-5, both LG&E and the AG have properly
7 calculated their respective pro forma synchronized interest expense amounts by
8 multiplying their recommended weighted cost of debt percentages included in their
9 overall rate of return numbers times their recommended adjusted capitalization
10 levels. However, since the AG's recommended capitalization and weighted cost of
11 debt numbers are different from those proposed by LG&E, the AG's recommended
12 synchronized interest level is slightly lower than LG&E's proposed synchronized
13 interest level.

14

15 **Q. WHAT IS THE IMPACT OF THESE DIFFERENT SYNCHRONIZED**
16 **INTEREST LEVELS ON THE COMPANY'S PROPOSED TEST YEAR**
17 **AFTER-TAX OPERATING INCOME?**

18 A. As shown on Schedule RJH-5, the AG's recommended interest synchronization
19 adjustment decreases the Company's proposed test year after-tax income by
20 approximately \$2,000.

21

22 - **Unbilled Revenue Adjustment**

23

1 **Q. IS THERE AN ISSUE WITH REGARD TO THE COMPANY’S PROPOSAL**
2 **TO REMOVE UNBILLED ELECTRIC REVENUES FROM THE TEST**
3 **YEAR?**

4 A. I believe so. The Company has proposed that its unbilled revenues as of April 30,
5 2008, the end of the test year, be removed and be replaced by the unbilled revenues
6 as of April 2007, the beginning of the test year. Since the unbilled revenues at the
7 end of the test year are \$.785 million higher than the unbilled revenues at the
8 beginning of the test year, the Company’s proposed unbilled revenue adjustment
9 increases the base rate revenue requirement and corresponding base rate increase
10 requested in this case by \$.785 million. However, as can be seen from the analysis
11 on Schedule RJH-6, only \$.343 million of the \$.785 million unbilled revenue
12 differential is caused by the difference in unbilled base rate revenues at April 30,
13 2008 vs. April 30, 2007. Thus, the majority (\$.442 million) of the Company’s
14 proposed \$.785 million unbilled revenue adjustment is caused by the difference in
15 unbilled FAC, DSM, ECR and other unbilled non-base rate surcharge revenues at
16 April 30, 2008 vs. April 30, 2007. On page 8, lines 18 - 23 of his testimony,
17 Company witness Bellar states that the costs and revenues associated with
18 ratemaking mechanisms such as the fuel adjustment clause, ECR clause or DSM
19 cost recovery should have no effect on the calculation of the base revenue
20 deficiency and corresponding base rate increase that LG&E is requesting in this
21 case. Yet, this is exactly what the Company is proposing to do through its proposed
22 unbilled revenue adjustment. In summary, I believe it is inappropriate to increase
23 the base rate revenue requirement in this case by \$.785 million if \$.442 million of

1 this proposed base rate revenue requirement is caused by the end-of-test year vs.
2 beginning-of-test year differential in unbilled FAC, DSM and ECR surcharge
3 revenues. In addition, the Company has not similarly proposed an adjustment for
4 the differential in the associated end-of-test year vs. beginning-of-test year
5 differential in unbilled FAC, DSM and ECR surcharge costs.

6
7 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THIS ISSUE?**

8 A. I recommend that the Company's proposed unbilled revenue adjustment be limited
9 to the unbilled base rate revenues and exclude any unbilled revenue considerations
10 for the FAC, DSM, ECR and other surcharge mechanisms. As shown on Schedule
11 RJH-6, my recommendation would increase the Company's proposed test year
12 after-tax income by \$.276 million.

13
14 - **Electric Temperature Normalization Adjustment**

15
16 **Q. PLEASE EXPLAIN THE ADJUSTMENTS THAT YOU HAVE**
17 **REFLECTED ON SCHEDULE RJH-7 REGARDING THE COMPANY'S**
18 **PROPOSED TEMPERATURE NORMALIZATION ADJUSTMENT.**

19 A. As shown on Schedule RJH-7, lines 1 and 2, I have eliminated the Company's
20 proposed electric temperature normalization revenue and associated variable
21 expense reductions based on the recommendations made by AG witness Glenn
22 Watkins with regard to this issue. I should note that if the Commission were to
23 adopt an electric temperature normalization adjustment, there should be an

1 additional expense adjustment in the form of a reduction in PSC assessments and
2 uncollectible expenses. This expense adjustment should be calculated by applying
3 the combined PSC assessment/uncollectible expense rate of .3438% to the amount
4 of the temperature normalization related revenue reduction.

5
6 **Q. WHAT IS THE IMPACT ON THE COMPANY'S TEST YEAR AFTER-TAX**
7 **INCOME OF THE DIFFERENCE BETWEEN THE AG'S**
8 **RECOMMENDED AND THE COMPANY'S PROPOSED TEMPERATURE**
9 **NORMALIZATION ADJUSTMENTS?**

10 A. As shown on Schedule RJH-7, the difference between the AG's recommended and
11 the Company's proposed temperature normalization adjustments increases the
12 Company's proposed test year after-tax operating income by \$6 million.

13
14 - Annualized Depreciation Expense

15
16 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED**
17 **ANNUALIZED DEPRECIATION EXPENSE ADJUSTMENT SHOWN ON**
18 **SCHEDULE RJH-8.**

19 A. The annualized depreciation expense adjustment shown on Schedule RJH-8 is a
20 direct result of the difference between the new depreciation rates proposed in this
21 case by LG&E and those recommended by Michael Majoros, the AG's depreciation
22 expert. The depreciation rates recommended by Mr. Majoros, as applied to the
23 depreciable plant in service balances at the end of the test year, produce \$32.086

1 million lower annualized depreciation expenses than proposed by LG&E in this
2 case. This has the result of increasing the Company's proposed pro forma test year
3 after-tax electric operating income by approximately \$20 million.

4
5 **- Labor Cost Adjustment**

6
7 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED LABOR**
8 **COST ADJUSTMENT SHOWN ON SCHEDULE RJH-9.**

9 A. The recommended labor cost adjustment consists of two parts. The first part
10 represents a labor cost adjustment of \$.287 million to correct for an error in the
11 Company's as-filed labor cost adjustment calculations. The second part represents
12 a labor cost adjustment of \$.189 million to remove certain executive incentive
13 compensation expenses from the test year electric operating expenses.

14
15 As shown on schedule RJH-9, the recommended total labor cost adjustment
16 increases the Company's proposed test year electric after-tax operating income by
17 approximately \$.297 million.

18
19 **- Employee Benefit Cost Adjustment**

20
21 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED**
22 **EMPLOYEE BENEFIT COST ADJUSTMENT SHOWN ON SCHEDULE**
23 **RJH-10.**

1 A. The recommended employee benefit cost adjustment total of \$.470 million results
2 from corrections made by the Company in its as-filed cost adjustments for pension,
3 OPEB and Post-Employment Benefit expenses.

4
5 As shown on schedule RJH-10, the recommended total employee benefit cost
6 adjustment increases the Company's proposed test year electric after-tax operating
7 income by approximately \$.293 million.

8

9 - **MISO Net Expense Adjustment**

10

11 **Q. WHAT IS THE HISTORY OF THE NET MISO COST ISSUE IN THIS**
12 **CASE?**

13 A. In its May 31, 2006 Order in Case No. 2003-00266, the Commission authorized
14 LG&E to exit the Midwest Independent Transmission System Operator ("MISO").
15 The Order further prescribed the following accounting treatment for the MISO exit
16 fee and the MISO Schedule 10 fees then and currently embedded in the Company's
17 base rates:

18 [T]he Commission concludes that it is reasonable to establish a regulatory
19 asset for the actual amount of the exit fee, subject to adjustment for future
20 MISO credits, if any, and a regulatory liability for the MISO Schedule 10
21 charges, which are the only MISO costs now included in existing rates.
22 This accounting treatment will have no immediate impact on LG&E's and
23 KU's rates as it defers the rate-making disposition of these amounts until
24 subsequent base rate cases.

25

26 In the instant proceeding, LG&E has presented its proposed ratemaking treatment
27 for this issue.

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Q. WHAT IS THE COMPANY’S PROPOSED RATEMAKING TREATMENT OF THIS ISSUE?

A. The Company’s actual regulatory asset balance for the MISO exit fees at the end of the test year, 4/30/08, amounts to approximately \$12.372 million. The Company’s actual regulatory liability balance for its cumulative MISO Schedule 10 rate collections at the end of the test year amounts to approximately \$5.570 million. As shown on Reference Schedule 1.23, the Company is proposing to amortize the net MISO cost balance of approximately \$6.802 million over a 5-year period for a proposed annual amortization expense of approximately \$1.360 million. The Company further proposes that the continuing MISO Schedule 10 rate collections and MISO exit fee credits booked between 4/30/08 and the rate effective date of the instant rate case be deferred as regulatory liabilities for rate recognition in the Company’s next base rate case.

Q. DO YOU AGREE WITH THIS RATEMAKING PROPOSAL FOR THE NET MISO COSTS?

A. I agree with the Company’s proposal to amortize the net balance of the MISO exit fees and cumulative MISO Schedule 10 collections over a 5-year period. However, I do not agree with the Company’s proposal to limit the amortization to the actual balances existing at the end of the test year while leaving the rate recognition for continuing post-test year MISO exit fee credits and MISO Schedule 10 collections until the next base rate case.

1

2 **Q. WHAT RATE TREATMENT DO YOU RECOMMEND FOR THIS ISSUE?**

3 A. At a minimum, the rate recognition for this issue in this case should include the
4 continuing MISO exit fee credits and MISO Schedule 10 collections from the end
5 of the test year until the expected February 6, 2009 rate effective date² of this rate
6 case. As shown on Schedule RJH-11, line 9, the recognition of these post-test year
7 MISO exit fee credits and MISO Schedule 10 rate collections would result in a 5-
8 year net MISO cost amortization of \$.824 million as opposed to the Company's
9 proposed net MISO cost amortization of \$1.360 million based on the actual
10 balances at the end of the test year.

11

12 In addition, the Company has provided information showing expected MISO exit
13 fee credits of \$1.554 million during the approximate 6-year period from the rate
14 effective date in this case until the first quarter of the year 2015. This would equate
15 to an average annual MISO exit fee credit of \$.259 million. It is my
16 recommendation that this average annual exit fee credit be recognized for
17 ratemaking purposes as well. As shown on Schedule RJH-11, line 15, this would
18 result in a recommended annual net MISO cost amortization of \$.565 million.

19

20 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION ON THE**
21 **COMPANY'S TEST YEAR AFTER-TAX INCOME?**

22 A. As shown on Schedule RJH-11, lines 15 - 19, the difference between my

² See the Company's response to AG-1-44.

1 recommended annual net MISO cost amortization of \$.565 million and the
2 Company's proposed annual net MISO cost amortization of \$1.360 million
3 increases the Company's test year after-tax income by \$.495 million.

4
5 - **New Bank Credit Facilities Adjustment**

6
7 **Q. HAVE YOU MADE AN ADJUSTMENT TO THE COMPANY'S PROPOSED**
8 **ADJUSTMENT FOR THE NEW BANK CHARGE CREDIT FACILITY**
9 **CHARGES?**

10 A. Yes. As shown on Schedule RJH-12, the Company has proposed an expense
11 adjustment of \$2.375 million for this item. This proposed cost amount assumes
12 letters of credit associated with two anticipated bond issues totaling \$211.335
13 million, an estimate letter of credit fee of 1.1%, and associated annual recurring
14 legal fees of \$50,000. None of these assumptions are firm at this time. For
15 example, in its response to AG-2-18, the Company states with regard to the
16 anticipated bond issues of \$211.335 million:

17 The company currently expects to close on the two bonds in late
18 November 2008 or early December 2008. However, the capital markets
19 are extremely volatile and market conditions may result in the need to
20 modify this plan.

21
22 The letter of credit fees are also uncertain at this time. While the Company initially
23 assumed an annual fee of 1.1% of the total bond issuance amount, in September
24 2008 it revised the estimated annual fee to .5% and most recently revised it again to
25 a rate of .7%. The Company has also provided no support for the legal expense of

1 \$50,000 and has not clarified that this is an annual recurring expense. For these
2 reasons, I do not believe that the expense adjustment amount proposed by the
3 Company in this case is known and measurable at this time.

4

5 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THIS ISSUE**
6 **BASED ON THE FOREGOING FINDINGS AND CONCLUSIONS?**

7 A. I have decided to take a conservative position on this matter. Specifically, rather
8 than rejecting the Company's proposed expense adjustment for the reason that it is
9 not known and measurable at this time, I have assumed the same bond issuance
10 amount of \$211.335 million and the same \$50,000 annual legal fees proposed by
11 the Company. However, I have reflected the most recent available letter of credit
12 fee of .7%, as opposed to the Company's assumed fee of 1.1%. As shown on
13 Schedule RJH-12, based on these conservative assumptions, my recommendation at
14 this time is to reflect a pro forma expense adjustment of \$1.529 million on a total
15 company basis. This recommended expense adjustment should be updated when
16 firm, actual information has become available regarding the amount and timing of
17 the bond issuances, the letter of credit percentage fee, and the annual recurring legal
18 fees prior to the close of record in this case.

19

20 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATIONS REGARDING**
21 **THIS ISSUE ON THE COMPANY'S PROPOSED TEST YEAR AFTER-TAX**
22 **ELECTRIC OPERATING INCOME?**

23 A. As shown on Schedule RJH-12, my recommendations regarding this issue increase

1 the Company's proposed test year after-tax electric operating income by \$.390
2 million.

3

4 - **Kentucky Coal Credit Adjustment**

5

6 **Q. HAS THE COMPANY MADE AN ADJUSTMENT TO REMOVE**
7 **KENTUCKY COAL TAX CREDITS FROM ITS TEST YEAR PROPERTY**
8 **TAXES?**

9 A. Yes. As shown on Reference Schedule 1.33, the Company has removed \$1,135,572
10 worth of Kentucky coal tax credits from its test year property taxes.

11

12 **Q. WHY HAS THE COMPANY MADE THIS ADJUSTMENT?**

13 A. The reason for the Company's proposed adjustment is explained on pages 6-7 of
14 Ms. Scott's testimony:

15 This adjustment is to remove the Kentucky coal tax credit received by
16 the Company during the test year and applied to property taxes. The
17 coal tax credit was established by Kentucky Revised Statute 141.0405
18 and is contingent on the Company's annual level of Kentucky coal
19 purchases versus the 1999 baseline level of purchases. The Company
20 must apply for the credit annually and, if approved, the coal tax credit
21 must be applied first to income taxes, and any remaining credit may be
22 applied to property taxes. The coal tax credit statute expires in 2009.
23 Due to its upcoming expiration and its contingent nature, the credit is not
24 fixed, cannot be considered to be an on-going reduction to property tax
25 expenses, and is removed from the test year.

26

27

28

29 **Q. DO YOU AGREE WITH THE COMPANY THAT THE KENTUCKY COAL**
30 **TAX CREDIT SHOULD BE REMOVED FROM THE TEST YEAR IN THIS**

1 **CASE BECAUSE IT EXPIRES IN 2009?**

2 A. No. As confirmed in its response to AG-2-12, if the Company generates coal tax
3 credits from coal purchases in 2008 and 2009, the tax credits will be available as
4 property tax or income tax credits in calendar years 2009 and 2010. The Company
5 has acknowledged that, if applicable, it will apply for these future coal tax credits.
6 Given that the Company has proposed in this case to recognize for ratemaking
7 purposes the amortization expense associated with the Mill Creek Ash Dredging
8 regulatory asset which is scheduled to expire in April 2010, it would be reasonable
9 and consistent to give rate recognition to potential coal tax credit bookings which
10 will not expire until December 2010. In addition, with the anticipation of another
11 rate case in conjunction with Trimble County Unit 2 going into service in the
12 summer of 2010, there should be no concern that the rate recognition of potential
13 coal tax credits through December 2010 will have a negative financial impact on
14 LG&E.

15

16 **Q. DO YOU AGREE WITH THE COMPANY THAT THE KENTUCKY COAL**
17 **TAX CREDIT SHOULD BE REMOVED FROM THE TEST YEAR IN THIS**
18 **CASE BECAUSE OF ITS CONTINGENT NATURE?**

19

20 A. No. As confirmed in the response to PSC-2-79, LG&E has qualified for the coal
21 tax credit in each of the last six years, 2002 through 2007. Based on this history, I
22 believe it is unreasonable to assume that the Company's ability to utilize these tax
23 credits will suddenly cease in the years 2009 and 2010.

1

2 **Q. BASED ON THE FOREGOING FINDINGS AND CONCLUSIONS, WHAT**
3 **RATEMAKING TREATMENT ARE YOU RECOMMENDING FOR THIS**
4 **ISSUE IN THIS CASE?**

5 A. I recommend rate recognition of a normalized annual Kentucky coal tax credit
6 amount based on the average of the actual coal tax credits experienced by the
7 Company in the most recent 5-year period. As shown in Schedule RJH-13, this
8 results in a recommended normalized annual coal tax credit amount of \$1.158
9 million. To be conservative,³ I also recommend that this coal tax credit be reflected
10 as a property tax credit rather than as a Kentucky income tax credit.

11

12 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION ON THE**
13 **COMPANY'S TEST YEAR AFTER-TAX INCOME?**

14 A. As shown on Schedule RJH-13, my recommendation increases the Company's test
15 year after-tax income by \$.722 million.

16

17 **- Amortization of Recycle Credit**

18

19 **Q. HAS THE COMPANY MADE AN ADJUSTMENT TO REMOVE**
20 **KENTUCKY RECYCLE TAX CREDITS FROM ITS TEST YEAR**
21 **KENTUCKY INCOME TAXES?**

³ As shown on Schedule RJH-13, treating the tax credit as a property tax credit will increase the Company's after-tax income by \$722,000. Based on the response to AG-2-12(e), Mr. Henkes is of the understanding that if the tax credit would be used as a Kentucky income tax credit, it would increase the Company's after-tax income by \$753,000 (\$1,158,000 x 65%).

1 A. Yes. As shown on Reference Schedule 1.41, the Company has removed \$741,478
2 worth of Kentucky Recycle Credits from the test year. The effect of this adjustment
3 is that it increases the test year pro forma Kentucky income taxes by \$741,478.
4

5 **Q. WHY HAS THE COMPANY MADE THIS ADJUSTMENT?**

6 A. The reason for the Company's proposed adjustment is explained on page 9 of Ms.
7 Scott's testimony:

8 The Kentucky recycle tax credit adjustment removes an adjustment
9 made during the test year that relates to prior periods. The Kentucky
10 recycle credit was originally generated in 1999, in accordance with
11 Kentucky Revised Statute 141.390. The unused portion of the recycle
12 credit is carried forward and used on Kentucky income tax returns, as
13 possible.
14

15
16 **Q. DO YOU AGREE WITH THE COMPANY THAT THE KENTUCKY**
17 **RECYCLE TAX CREDIT SHOULD BE REMOVED FROM THE TEST**
18 **YEAR IN THIS CASE BECAUSE IT RELATES TO PRIOR PERIODS?**

19 A. No. While this tax credit was generated in 1999, it was available for utilization on
20 the Company's consolidated Kentucky income tax returns in the future, provided
21 that tax liabilities existed in those future years. In her response to AG-2-14, Ms.
22 Scott further states with regard to this item:

23 (LG&E) expects to have consolidated Kentucky taxable income in the
24 future, enabling it to eventually use the entire recycle credit. Since there
25 is no expiration date the recycle credit carry forward can be applied to
26 future years' state income tax liabilities until fully used.
27

28 The Company's response to AG-1-30 shows the history of the utilization of the
29 original recycle tax credit of \$8.2 million generated in 1999:

Henkes Direct Testimony
Louisville Gas & Electric Company – Case No. 2008-00252 Electric Case

1	- Recycle credit generated in 1999	\$8,193,379
2	- Recycle credit utilized on 1999 state tax return	(819,338)
3	- Recycle credit utilized on 2000 state tax return	(1,635,589)
4	- Recycle credit utilized on 2005 state tax return	(959,537)
5	- Recycle credit utilized on 2007 state tax return	<u>(741,478)</u>
6	- Unused balance to be carried forward for future use	<u>\$4,037,437</u>

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In summary, I do not believe that the remaining available tax credits should be disregarded as a “prior period” item, as the Company is proposing, for the reason that the credit was generated in 1999. The fact is that at the end of the test year in this case, there was still an unused tax credit balance in excess of \$4 million available for future use as tax credits on the Company’s consolidated Kentucky income tax returns. Furthermore, the Company’s proposal to treat this tax credit as a prior period item is inconsistent with its proposal in this case to reflect the amortization expenses of many costs that were deferred prior to the test year. The electric amortization expenses of prior period deferred cost balances are listed in the first column of the response to AG-1-10.

Q. WHAT HAS RECENTLY HAPPENED WITH THE CURRENT UNUSED RECYCLE TAX CREDIT BALANCE OF APPROXIMATELY \$4 MILLION?

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A. As reported by the Company in its response to AG-2-14, LG&E was paid the entire \$4 million unused recycle tax credit balance by its parent company E.ON U.S. LLC in September 2008. Thus, rather than utilizing the current unused recycle tax credit balance in a piece-meal fashion on LG&E’s future consolidated state income tax returns, the Company was able to utilize the entire tax credit balance in September

1 2008.

2

3

4 **Q. DO YOU BELIEVE THIS LARGE \$4 MILLION PAYMENT SHOULD BE**
5 **RECOGNIZED FOR RATEMAKING PURPOSES IN THIS CASE?**

6 A. Yes. I believe it would be inequitable to the ratepayers of LG&E to have this large
7 \$4 million payment flow to the Company's stockholders, as the Company is
8 proposing in this case. The Company's ratepayers have always been, and still are,
9 responsible for the Company's income tax liabilities and, therefore, should receive
10 the benefit of this large, one-time tax credit.

11

12 **Q. WHAT RATEMAKING TREATMENT ARE YOU RECOMMENDING FOR**
13 **THIS ISSUE?**

14 A. I recommend that the \$4 million recycle tax credit be amortized to the ratepayers
15 over a five-year period. In order to share a portion of this issue with the Company's
16 stockholders, I also recommend that the unamortized balance of this \$4 million item
17 during the 5-year amortization period not be treated as a reduction from rate base
18 and capitalization.

19

20 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION ON THE**
21 **COMPANY'S TEST YEAR AFTER-TAX INCOME?**

22 A. As shown on Schedule RJH-14, my recommendation increases the Company's test
23 year after-tax income by \$.525 million.

24

1 - **EEI Dues Adjustment**

2

3 **Q. PLEASE EXPLAIN YOUR RECOMMENDATION TO REMOVE A**
4 **PORTION OF THE COMPANY’S ANNUAL EDISON ELECTRIC**
5 **INSTITUTE (EEI) DUES FOR RATEMAKING PURPOSES IN THIS CASE.**

6 A. The test year electric operating expenses include \$413,000 for EEI dues. Certain
7 portions of EEI activities are dedicated to legislative advocacy, regulatory advocacy
8 and public relations which are forms of lobbying activities, as determined by the
9 Commission in LG&E’s prior rate case, Case No. 2003-00433. In the prior case,
10 NARUC information⁴ was available that identified that 45.35% of EEI’s activities
11 accounted for legislative/regulatory advocacy and public relations and, based on
12 that information, the Commission ruled that 45.35% of the Company’s EEI dues in
13 that case be disallowed for ratemaking purposes.⁵ In its response to AG-1-72 in the
14 current case, the Company has indicated that EEI is no longer preparing the same
15 breakout of activities by NARUC category as provided in the prior case, but that for
16 2007, EEI determined that 16.15% of 2007 dues was spent on lobbying activities.
17 It is not known whether EEI’s determination of what represents lobbying activities
18 is as inclusive as, and exactly similar to, NARUC’s classification of EEI’s
19 legislative and regulatory advocacy and public relations activities. I have therefore
20 relied on the same 45.35% EEI lobbying expense ratio as established by the
21 Commission in the prior case in my determination of the EEI dues to be excluded

⁴ Response to AG-1-85, Case No. 2003-00433.
⁵ See pages 51-52 of the PSC Order in Case No. 2003-00433.

1 for ratemaking purposes in the current case.

2
3 As shown on Schedule RJH-15, the application of the lobbying ratio of 45.35% to
4 the test year EEI dues of \$413,000 indicates a disallowed expense amount of
5 \$187,000. This expense amount should be the responsibility of LG&E's
6 stockholders as they produce no benefits to the Company's ratepayers. My
7 recommendation increases the Company's proposed test year electric after-tax
8 operating income by approximately \$117,000.

9
10 - **Miscellaneous Expense Adjustments**

11
12 **Q. PLEASE DESCRIBE THE MISCELLANEOUS ADJUSTMENTS SHOWN**
13 **ON SCHEDULE RJH-16.**

14 A. First, I recommend the removal from test year electric operating expenses of
15 \$70,000 for expenses associated with employee gifts, award banquets, parties and
16 other social events (e.g., company picnics). My recommendation is consistent with
17 previously established Commission-policy that such expenses do not produce
18 benefits to the ratepayers and should be excluded for ratemaking purposes.⁶

19
20 Second, I recommend the removal from test year electric operating expenses of
21 \$5,000 worth of penalty and fines expenses. Such expenses should be funded by

⁶ Similar expenses were excluded from rate recognition in the Company's prior electric rate case – see pages 50-51 in the PSC Order in Case No. 2003-00433.

1 the Company's stockholders, not ratepayers.

2
3 Third, I have removed \$15,000 of electric expenses associated with real estate
4 receptions and community involvement. As shown in more detail in the responses
5 to AG-2-19 and 2-24, these expenses are for such items as community trade shows,
6 fundraisers, music, florists, showcase gifts, reception catering, valet parking, service
7 charges, etc. I do not believe that such expenses should be funded by the ratepayers
8 as they have nothing to do with the provision of safe, adequate and proper electric
9 service

10
11 **Q. WHAT IS THE IMPACT OF YOUR MISCELLANEOUS EXPENSE**
12 **ADJUSTMENT RECOMMENDATIONS ON THE COMPANY'S**
13 **PROPOSED TEST YEAR ELECTRIC AFTER-TAX OPERATING**
14 **INCOME?**

15 A. As shown on schedule RJH-16, the recommended miscellaneous expense
16 adjustments increase the Company's proposed test year electric after-tax operating
17 income by approximately \$56,000.

18
19 **- Outside Labor Expenses**

20
21 **Q. DO YOU HAVE ANY OTHER CONCERNS REGARDING CERTAIN**
22 **OPERATING EXPENSES INCLUDED IN THE TEST YEAR?**

23 A. Yes. I am concerned about the very high level of outside labor expenses that are

1 included in the Company’s test year operating expenses as compared to the similar
 2 operating expenses experienced by the Company in recent prior years. This is
 3 evident from various data responses, the results of which are outlined below:

	<u>Outside Labor – Other</u>	<u>Maintenance Contracts</u>	<u>Maint. of Boiler Plant</u>
	<u>[AG-2-22]</u>	<u>[PSC-2-99]</u>	<u>[PSC-3-15]</u>
2004	\$48.106	NA	\$24.679
2005	41.138	13.655	26.333
2006	48.506	17.644	25.220
2007	53.075	19.949	30.839
Test Yr.	62.886	24.130	39.886

[Millions]

12 The data in the above table indicate that the test year outside labor O&M expenses
 13 may be abnormally high.

14
 15 **Q. HAVE YOU MADE AN ADJUSTMENT TO NORMALIZE THE TEST**
 16 **YEAR OUTSIDE LABOR O&M EXPENSES BASED ON THE**
 17 **INFORMATION IN THE ABOVE TABLE?**

18 A. No. I felt that not enough information was available to me that would allow me to
 19 calculate a reliable and reasonable expense normalization adjustment at this time.
 20 However, I do recommend that if the Company, in the rebuttal phase of this
 21 proceeding, cannot adequately prove why these high test year outside labor
 22 expenses should reasonably be considered annually recurring, then the Commission
 23 should calculate and reflect a reasonable outside labor expense normalization
 24 adjustment based on the data in the above table.

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 26 - Hurricane Ike Storm Damage Expenses

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Q. DO YOU HAVE ANY COMMENTS ON THE COMPANY’S RECENT CORRESPONDENCE REGARDING STORM DAMAGE EXPENSES INCURRED DUE TO HURRICANE IKE?

A. Yes. In its updated 10/23/08 response to PSC-1-43, the Company reported that it recently incurred extraordinary and material damage to its distribution, transmission and other facilities as a result of hurricane Ike. The response further stated with regard to this issue that:

No later than Tuesday, October 28, 2008, the Companies will file applications to initiate separate proceedings to seek orders from the Commission to approve the establishment of regulatory assets to accumulate and defer for future recovery the Companies’ costs incurred due to Hurricane Ike. If the Commission grants the Companies’ requested relief in those separate proceedings, the Companies anticipate asking the Commission in these base rate proceedings for amortization and base rate recovery of the Hurricane Ike regulatory assets.

Since the Company filed this application during the time of this writing, October 29, 2008, the AG cannot take a position on this matter at this time. However, the AG will address this matter at the appropriate time after all discovery, review and analyses of this issue in the Company’s October 27, 2008 application have been completed.

Q. MR. HENKES, DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Henkes Direct Testimony
Louisville Gas & Electric Company – Case No. 2008-00252 Electric Case

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**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
REVENUE REQUIREMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Capital Structure	\$ 1,784,028	\$ (3,949)	\$ 1,780,079	Sch. RJH-2
2. Rate of Return	<u>8.35%</u>		<u>7.65%</u>	Sch. RJH-2
3. Income Requirement	148,966		136,185	
4. Pro Forma Income	<u>139,557</u>	29,176	<u>168,733</u>	Sch. RJH-4
5. Income Deficiency	9,409		(32,547)	
6. Revenue Conversion Factor	<u>0.62143063</u>		<u>0.62143063</u>	
7. Overall Revenue Deficiency	<u>\$ 15,141</u>	<u>\$ (67,516)</u>	<u>\$ (52,375)</u>	

(1) Rives Exhibit 8, page 1

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
ADJUSTED CAPITALIZATION AT 4/30/08
(\$000)**

<u>LG&E PROPOSED:</u>	<u>Adjusted Electric Capitalization</u> (1)	<u>Capitalization Ratios</u>	<u>Cost Rates</u>	<u>Weighted Cost Rates</u>
1. Short Term Debt	\$ 42,444	2.38%	2.63%	0.06%
2. Long Term Debt	805,340	45.14%	5.30%	2.39%
3. Common Equity	<u>936,244</u>	<u>52.48%</u>	11.25%	<u>5.90%</u>
4. Total	<u>\$ 1,784,028</u>	<u>100.00%</u>		<u>8.35%</u>

<u>AG RECOMMENDED:</u>	<u>Adjusted Electric Capitalization</u> (2)	<u>Capitalization Ratios</u>	<u>Cost Rates</u> (3)	<u>Weighted Cost Rates</u>
1. Short Term Debt	\$ 42,350	2.38%	2.63%	0.06%
2. Long Term Debt	803,558	45.14%	5.30%	2.39%
3. Common Equity	<u>934,171</u>	<u>52.48%</u>	9.90%	<u>5.20%</u>
4. Total	<u>\$ 1,780,079</u>	<u>100.00%</u>		<u>7.65%</u>

(1) Rives Exhibit 2, page 1

(2) Schedule RJH-2, page 2 of 2, lines 1, 2 and 3

(3) Testimony of J. Randall Woolridge

LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
AG's RECOMMENDED CAPITALIZATION
(\$000)

	Adjusted Total Co. Capitalization (1)	Electric Rate Base Ratio (1)	Adjusted Electric Capitalization (1)	Adjustments to Capitalization [see below]	Total Adjusted Capitalization
1. ST Debt	51,875	80.53%	41,775	575	42,350
2. LT Debt	984,304	80.53%	792,660	10,898	803,558
3. Equity	<u>1,144,296</u>	80.53%	<u>921,502</u>	<u>12,669</u>	<u>934,171</u>
4. Total	<u><u>2,180,475</u></u>		<u><u>1,755,937</u></u>	<u><u>24,142</u></u>	<u><u>1,780,079</u></u>

	Capital Structure Ratios (2)	TC Inventories (2)	Investments in OVEC/Other (3)	JDIC (2)	ECR (2)	ACITC (2)	Total Capitalization Adjustments
5. ST Debt	2.38%	(82)	(14)	755	(400)	316	575
6. LT Debt	45.14%	(1,557)	(274)	14,319	(7,585)	5,995	10,898
7. Equity	<u>52.48%</u>	<u>(1,811)</u>	<u>(318)</u>	<u>16,647</u>	<u>(8,818)</u>	<u>6,969</u>	<u>12,669</u>
8. Total	<u><u>100.00%</u></u>	<u><u>(3,450)</u></u>	<u><u>(606)</u></u>	<u><u>31,721</u></u>	<u><u>(16,803)</u></u>	<u><u>13,280</u></u>	<u><u>24,142</u></u>

(1) Rives Appendix B - Exhibit 2, page 1 of 2

(2) Rives Appendix B - Exhibit 2, page 2 of 2

(3) Rives Appendix B - Exhibit 2, page 2 of 2, col. (4), corrected for additional removal of non-utility property

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
RETURN ON ORIGINAL COST RATE BASE
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Remove Net ECR</u> (1)	<u>Other Adjustments</u>	<u>AG</u>
1. Utility Plant at Original Cost	\$ 3,701,271	\$ (23,799)		\$ 3,677,472
2. Reserve for Depreciation	<u>(1,665,933)</u>	<u>9,025</u>	15,363 (2)	<u>(1,641,545)</u>
3. Net Utility Plant	<u>2,035,338</u>	<u>(14,774)</u>	<u>15,363</u>	<u>2,035,927</u>
<u>Deduct:</u>				
4. Customer Advances	(12,090)			(12,090)
5. Deferred Income Taxes	(295,155)	3,518		(291,637)
6. FAS 109 Deferred Inc. Tax	(44,277)			(44,277)
7. Net ARO Assets	<u>(1,129)</u>			<u>(1,129)</u>
8. Total Deductions	<u>(352,651)</u>	<u>3,518</u>		<u>(349,133)</u>
<u>Add:</u>				
9. Materials and Supplies	69,130			69,130
10. Prepayments	3,276		(502) (3)	2,774
11. Cash Working Capital	66,892	(131)	(3,000) (4)	63,761
12. Mill Creek Ash Dredging	<u>4,033</u>	<u>(1,898)</u>		<u>2,135</u>
13. Total Additions	<u>143,331</u>	<u>(2,029)</u>	<u>(3,502)</u>	<u>137,800</u>
14. Total Net Original Rate Base	<u>\$ 1,826,018</u>	<u>\$ (13,285)</u>	<u>\$ 11,861</u>	<u>\$ 1,824,594</u>
15. Income Requirement				\$ 136,185
16. Return on Rate Base [L15 / L14]				<u>7.46%</u>

Sch. RJH-1, L3

(1) Rives Exhibit 3, page 1

(2) Impact on depreciation reserve of AG's recommended depreciation expense adjustment - see Schedule RJH-8, L3

(3) Per response to AG-1-13: removed prepaid PSC assessments

(4) Per response to AG-1-15: corrected CWC adjustment should be a decrease of \$3,000,161

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
PRO FORMA OPERATING INCOME
(\$000)**

	<u>LG&E Electric</u>	
1. LG&E's Proposed Pro Forma After-Tax Operating Income:	\$ 139,557	Rives Exh. 1, p.3
<u>AG-RECOMMENDED ADJUSTMENTS:</u>		
2. Interest Synchronization	(2)	Sch. RJH-5
3. Unbilled Revenue Adjustment	276	Sch. RJH-6
4. Temperature Normalization Adjustment	6,000	Sch. RJH-7
5. Annualized Depreciation Expense	20,007	Sch. RJH-8
6. Labor Costs Adjustment	297	Sch. RJH-9
7. Employee Benefit Costs Adjustment	293	Sch. RJH-10
8. MISO Net Expense Adjustment	495	Sch. RJH-11
9. New Bank Credit Facilities Adjustment	390	Sch. RJH-12
10. Kentucky Coal Tax Credit Adjustment	722	Sch. RJH-13
11. Amortization of Recycle Credit	525	Sch. RJH-14
12. EEI Dues Adjustment	117	Sch. RJH-15
13. Miscellaneous Expense Adjustments	<u>56</u>	Sch. RJH-16
14. AG-Recommended Pro Forma After-Tax Operating Income:	<u>\$ 168,733</u>	

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
INTEREST SYNCHRONIZATION ADJUSTMENT
(\$000)**

	<u>LG&E Electric (1)</u>	<u>Adjustments</u>	<u>AG</u>	
1. Adjusted Capitalization	\$ 1,784,028		\$ 1,780,079	Sch. RJH-2
2. Weighted Cost of Debt	<u>2.45%</u>		<u>2.46%</u>	Sch. RJH-2
3. Pro Forma Interest Expense	43,709		\$ 43,702	
4. Test Year Per Books Interest Deduction	<u>41,312</u>		<u>41,312</u>	
5. Interest Synchronization Adjustment	2,397		2,390	
6. Composite Income Tax Rate	<u>37.64688%</u>		<u>37.64688%</u>	
7. Impact on After-Tax Income	<u>\$ 902</u>	<u>\$ (2)</u>	<u>\$ 900</u>	

(1) Rives Exhibit 1, Schedule 1.40

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
UNBILLED REVENUE ADJUSTMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>
<u>Unbilled Revenues at 4/30/07:</u>			
Unbilled Base Revenues	\$ 25,639		\$ 25,639
FAC Revenues	-		
DSM Revenues	158		
ECR Revenues	347		
MSR/VDT/STOD PCR Revenues	(808)		
Total Unbilled Revenues	<u>\$ 25,336</u>		<u>\$ 25,639</u>
<u>Unbilled Revenues at 4/30/08:</u>			
Unbilled Base Revenues	\$ 25,982		\$ 25,982
FAC Revenues	659		
DSM Revenues	120		
ECR Revenues	99		
MSR/VDT/STOD PCR Revenues	(739)		
Total Unbilled Revenues	<u>\$ 26,121</u>		<u>\$ 25,982</u>
<u>Difference Between 4/30/07 & 4/30/08 Unb. Rev.:</u>			
Unbilled Base Revenues	\$ (343)		\$ (343)
FAC Revenues	(659)		
DSM Revenues	38		
ECR Revenues	248		
MSR/VDT/STOD PCR Revenues	(69)		
Total Unbilled Revenue Adjustment	<u>\$ (785)</u>	\$ 442	<u>\$ (343)</u>
Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
Impact on After-Tax Income		<u>\$ 276</u>	

(1) Rives Exhibit 1, Schedule 1.00; response to AG-1-23; response to AG-2-8

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
TEMPERATURE NORMALIZATION ADJUSTMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Revenue Adjustment	\$ (14,374)	\$ 14,374	\$ -	(2)
2. Variable Expense Adjustment	(4,751)	4,751	-	(2)
3. PSC Assessment and Uncollectible Expense Adjustment @ .3438% of Line 1	<u>-</u>	<u>-</u>	<u>-</u>	
4. Total Net Weather Normalization Adjustment	<u>\$ (9,623)</u>	\$ 9,623	<u>\$ -</u>	
5. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
6. Impact on After-Tax Operating Income		<u>\$ 6,000</u>		

(1) Seelye Exhibit 19

(2) Testimony of Glenn Watkins

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
ANNUALIZED DEPRECIATION EXPENSE ADJUSTMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>
1. Annualized Depreciation Expense With New Rates	\$ 116,685	\$ (32,086)	\$ 84,599 (2)
2. Test Year Per Books Depr. Exp. Excluding ARO and Post-1995 ECR	<u>99,962</u>		<u>99,962</u>
3. Depreciation Expense Change	<u>\$ 16,723</u>	\$ (32,086)	<u>\$ (15,363)</u>
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
5. Impact on After-Tax Operating Income		<u>\$ 20,007</u>	

(1) Rives Exhibit 1, Schedule 1.11

(2) Testimony of Michael Majoros

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
LABOR COST ADJUSTMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Total Labor and Labor Related Cost Adjustment	\$ 2,761	\$ (287)	\$ 2,474	(2)
2. Remove "Other Compensation" Expenses	<u>-</u>	<u>(189)</u>	<u>(189)</u>	(3)
3. Total Labor Cost Adjustment	<u>\$ 2,761</u>	(476)	<u>\$ 2,285</u>	
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
5. Impact on After-Tax Operating Income		<u>\$ 297</u>		

(1) Rives Exhibit 1, Schedule 1.15

(2) Rives Exhibit 1, Schedule 1.15, Revised

(3) Response to PSC-2-91(f)2 and amended response to PSC-3-4

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
EMPLOYEE BENEFIT COST ADJUSTMENT
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Pension Expense Adjustment	\$ 708	\$ (213)	\$ 495	(2)
2. OPEB Expense Adjustment	423	(235)	188	(2)
3. Post-Employment Benefit Expense Adjustment	<u>620</u>	<u>(22)</u>	<u>598</u>	(2)
4. Total Employee Benefits Expense Adjustment	<u>\$ 1,751</u>	<u>\$ (470)</u>	<u>\$ 1,281</u>	
5. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
6. Impact on After-Tax Operating Income		<u>\$ 293</u>		

(1) Rives Exhibit 1, Schedules 1.16 and 1.17

(2) Rives Exhibit 1, Schedules 1.16 and 1.17, Revised

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
MISO NET COST ADJUSTMENT
(\$000)**

1. MISO Exit Fee Balance at 4/30/08	\$ 12,372	AG-1-45(a)
2. Estimated MISO Exit Fee Credits 5/1/08 - 2/6/09	<u>(174)</u>	AG-1-45(c)
3. MISO Exit Fee Balance at 2/6/09	12,198	
4. Cumulative Schedule 10 Receipts at 4/30/08	5,570	AG-1-46(b)
5. Schedule 10 Receipts 5/1/08 - 2/6/09	<u>2,506</u>	AG-1-46(c)
6. Cumulative Schedule 10 Receipts at 2/6/09	8,076	
7. Net of MISO Exit Fees and Schedule 10 Receipts at Rate Effective Date of 2/6/09 [Line 3 - Line 6]	4,122	
8. Amortization Period (Yrs)	<u>5</u>	
9. Annual Amortization of Net MISO Expenses	<u>824</u>	
10. MISO Exit Fee Balance at 2/6/09 [Line 3]	12,198	
11. MISO Exit Fee Balance Through 1st Q. 2015	<u>10,644</u>	AG-1-45(a) and AG-2-15(b)
12. MISO Exit Fee Credits 2/6/09 - 1st Q. 2015	1,554	
13. Amortization Period (Yrs)	<u>6</u>	
14. Annual Exit Fee Credits Amortization	<u>259</u>	
15. Net MISO Expense Amortization [Line 9 - Line 14]	565	
16. LG&E's Proposed Net MISO Expense Amortization	<u>1,360</u>	Rives Exhibit 1, Schedule 1.23
17. Recommended Amortization Expense Adjustment	(795)	
18. Composite After-Tax Income Factor (1 - .3764688)	<u>62.35312%</u>	
19. Impact on After-Tax Operating Income	<u>\$ 495</u>	

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
NEW BANK CREDIT FACILITY EXPENSES
(\$000)**

	<u>LG&E Electric</u> (1)	<u>Adjustments</u>	<u>AG</u>
1. <u>Cost of New Bank Credit Facilities:</u>			
- Required New Letter of Credit Amount	\$ 211,335		\$ 211,335
- Letter of Credit Fee	1.1%		0.7% (2)
- Total Estimated Fees	<u>2,325</u>		<u>1,479</u>
- Plus: Legal Costs	<u>50</u>		<u>50</u>
- Total Cost of New Bank Credit Facilities	<u><u>2,375</u></u>	(845)	<u><u>1,529</u></u>
2. Electric Department Ratio		74%	
3. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
4. Impact on After-Tax Operating Income		<u>\$ 390</u>	

(1) Exhibit 1, Schedule 1.32 and response to PSC-2-10

(2) Response to PSC-2-106, updated 10/23/08

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
KENTUCKY COAL TAX CREDIT
(\$000)**

1. <u>Actual Coal Tax Credits Received During</u>	
<u>Most Recent 5 Years:</u>	
2003	\$ 719
2004	558
2005	1,712
2006	1,136
2007	<u>1,666</u>
Five-Year Average (Use as Property Tax Credit)	1,158
2. Composite After-Tax Income Factor (1 - .3764688)	<u>62.35312%</u>
3. Impact on After-Tax Operating Income	<u><u>\$ 722</u></u>

Source: Response to PSC-2-79

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
RECYCLE CREDIT AMORTIZATION
(\$000)**

1. Current Remaining Recycle Credit Paid by E.ON U.S. to LG&E in September 2008	\$ 4,037 (1)
2. Recommended Amortization Period (Yrs)	<u>5</u>
3. Recommended Annual Recycle Tax Credit	807
4. Associated Increase in FIT @ 35%	<u>283</u>
5. Net impact on After-Tax Operating Income [Line 3 - Line 4]	<u><u>\$ 525</u></u>

(1) Responses to AG-1-30 and AG-2-14

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
EEI DUES ADJUSTMENT
(\$000)**

1. Total EEI Dues in Test Year	\$	413	(1)
2. Portion of EEI Dues Related to Legislative & Regulatory Advocacy and Public Relations		<u>45.35%</u>	(2)
3. Remove Portion of EEI Dues Dedicated to Lobbying		187	
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
5. Impact on After-Tax Operating Income	<u>\$</u>	<u>117</u>	

(1) Response to AG-2-20

(2) PSC Order in Case No. 2003-00433, page 51

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
MISCELLANEOUS EXPENSE ADJUSTMENTS
(\$000)**

1. Remove Expenses Related to Employee Gifts, Award Banquets, Social Events, and Parties	\$	(70)	(1)
2. Remove Fines and Penalties		(5)	(2)
3. Remove Real Estate Reception and Community Involvement Expenses		<u>(15)</u>	(3)
4. Total Miscellaneous Expense Adjustments		(90)	
6. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
7. Impact on After-Tax Operating Income	<u>\$</u>	<u>56</u>	

(1) Response to AG-1-75

(2) Response to AG-1-77

(3) Real estate reception expenses (electric)
Community involvement expenses (electric)

\$	14,496	AG-1-61 & AG-2-19
	<u>638</u>	AG-1-62 & AG-2-24
<u>\$</u>	<u>15,134</u>	

APPENDIX I

PRIOR REGULATORY EXPERIENCE OF ROBERT J. HENKES

* = Testimonies prepared and submitted

ARKANSAS

Southwestern Bell Telephone Company Divestiture Base Rate Proceeding*	Docket 83-045-U	09/1983
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DELAWARE

Delmarva Power and Light Company Electric Fuel Clause Proceeding	Docket 41-79	04/1980
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Delmarva Power and Light Company Electric Fuel Clause Proceeding	Docket 80-39	02/1981
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Delmarva Power and Light Company Sale of Power Station Generation	Complaint Docket 279-80	04/1981
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Delmarva Power and Light Company Electric Base Rate Proceeding	Docket 81-12	06/1981
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Delmarva Power and Light Company Gas Base Rate Proceeding*	Docket 81-13	08/1981
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 82-45	04/1983
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 83-26	04/1984
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 84-30	04/1985
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 85-26	03/1986
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Delmarva Power and Light Company Report of DP&L Operating Earnings*	Docket 86-24	07/1986
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Docket 86-24	12/1986 01/1987
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Delmarva Power and Light Company	Docket 85-26	10/1986
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Appendix Page 2
 Prior Regulatory Experience of Robert J. Henkes

Report Re. PROMOD and Its Use in
 Fuel Clause Proceedings*

Diamond State Telephone Company Base Rate Proceeding*	Docket 86-20	04/1987
Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 87-33	06/1988
Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 90-35F	05/1991
Delmarva Power and Light Company Electric Base Rate Proceeding*	Docket 91-20	10/1991
Delmarva Power and Light Company Gas Base Rate Proceeding*	Docket 91-24	04/1992
Artesian Water Company Water Base Rate Proceeding*	Docket 97-66	07/1997
Artesian Water Company Water Base Rate Proceeding*	Docket 97-340	02/1998
United Water Delaware Water Base Rate Proceeding*	Docket 98-98	08/1998
Delmarva Power and Light Company Revenue Requirement and Stranded Cost Reviews	Not Docketed	12/1998
Artesian Water Company Water Base Rate Proceeding*	Docket 99-197 (Direct Test.)	09/1999
Artesian Water Company Water Base Rate Proceeding*	Docket 99-197 (Supplement. Test)	10/1999
Tidewater Utilities/ Public Water Co. Water Base Rate Proceedings*	Docket No. 99-466	03/2000
Delmarva Power & Light Company Competitive Services Margin Sharing Proceeding*	Docket No. 00-314	03/2001
Artesian Water Company Water Base Rate Proceeding*	Docket No. 00-649	04/2001

Appendix Page 3
Prior Regulatory Experience of Robert J. Henkes

Chesapeake Gas Company Gas Base Rate Proceeding*	Docket No. 01-307	12/2001
Tidewater Utilities Water Base Rate Proceeding*	Docket No. 02-28	07/2002
Artesian Water Company Water Base Rate Proceeding*	Docket No. 02-109	09/2002
Delmarva Power & Light Company Electric Cost of Service Proceeding	Docket No. 02-231	03/2003
Delmarva Power & Light Company Gas Base Rate Proceeding*	Docket No. 03-127	08/2003
Artesian Water Company Water Base Rate Proceeding*	Docket No. 04-42	08/2004
United Water Delaware Water Base Rate Proceeding*	Docket No. 06-174	10/2006
 <u>DISTRICT OF COLUMBIA</u>		
District of Columbia Natural Gas Co. Gas Base Rate Proceeding*	Formal Case 870	05/1988
District of Columbia Natural Gas Co. Gas Base Rate Proceeding*	Formal Case 890	02/1990
District of Columbia Natural Gas Co. Waiver of Certain GS Provisions	Formal Case 898	08/1990
Chesapeake and Potomac Telephone Co. Base Rate Proceeding*	Formal Case 850	07/1991
Chesapeake and Potomac Telephone Co. Base Rate Proceeding*	Formal Case 926	10/1993
Bell Atlantic - District of Columbia SPF Surcharge Proceeding	Formal Case 926	06/19/94
Bell Atlantic - District of Columbia Price Cap Plan and Earnings Review	Formal Case 814 IV	07/1995

Appendix Page 4
Prior Regulatory Experience of Robert J. Henkes

GEORGIA

Southern Bell Telephone Company Base Rate Proceeding	Docket 3465-U	08/1984
Southern Bell Telephone Company Base Rate Proceeding	Docket 3518-U	08/1985
Georgia Power Company Electric Base Rate and Nuclear Power Plant Phase-In Proceeding*	Docket 3673-U	08/1987
Georgia Power Company Electric Base Rate and Nuclear Power Plant Phase-In Proceeding*	Docket 3840-U	08/1989
Southern Bell Telephone Company Base Rate Proceeding	Docket 3905-U	08/1990
Southern Bell Telephone Company Implementation, Administration and Mechanics of Universal Service Fund*	Docket 3921-U	10/1990
Atlanta Gas Light Company Gas Base Rate Proceeding*	Docket 4177-U	08/1992
Southern Bell Telephone Company Report on Cash Working Capital*	Docket 3905-U	03/1993
Atlanta Gas Light Company Gas Base Rate Proceeding*	Docket No. 4451-U	08/1993
Atlanta Gas Light Company Gas Base Rate Proceeding	Docket No. 5116-U	08/1994
Georgia Independent Telephone Companies Earnings Review and Show Cause Proceedings	Various Dockets	1994
Georgia Power Company Earnings Review - Report to GPSC*	Non-Docketed	09/1995
Georgia Alltel Telecommunication Companies Earnings and Rate Reviews	Docket No. 6746-U	07/1996
Frontier Communications of Georgia Earnings and Rate Review	Docket No. 4997-U	07/1996

Appendix Page 5
Prior Regulatory Experience of Robert J. Henkes

Georgia Power Company Electric Base Rate / Accounting Order Proceeding	Docket No. 9355-U	12/1998
Savannah Electric Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 14618-U	03/2002
Georgia Power Company Electric Base Rate / Alternative Rate Plan Proceeding*	Docket No. 18300-U	12/2004
Savannah Electric Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 19758-U	03/2005
Georgia Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 25060-U	10/2007

FERC

Philadelphia Electric/Conowingo Power Electric Base Rate Proceeding*	Docket ER 80-557/558	07/1981
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KENTUCKY

Kentucky Power Company Electric Base Rate Proceeding*	Case 8429	04/1982
Kentucky Power Company Electric Base Rate Proceeding*	Case 8734	06/1983
Kentucky Power Company Electric Base Rate Proceeding*	Case 9061	09/1984
South Central Bell Telephone Company Base Rate Proceeding*	Case 9160	01/1985
Kentucky-American Water Company Base Rate Proceeding*	Case 97-034	06/1997
Delta Natural Gas Company Base Rate Proceeding*	Case 97-066	07/1997
Kentucky Utilities and LG&E Company Environmental Surcharge Proceeding	97-SC-1091-DG	01/1999

Appendix Page 6
 Prior Regulatory Experience of Robert J. Henkes

Delta Natural Gas Company Experimental Alternative Regulation Plan*	Case No. 99-046	07/1999
Delta Natural Gas Company Base Rate Proceeding*	Case No. 99-176	09/1999
Louisville Gas & Electric Company Gas Base Rate Proceeding*	Case No. 2000-080	06/2000
Kentucky-American Water Company Base Rate Proceeding*	Case No. 2000-120	07/2000
Jackson Energy Cooperative Corporation Electric Base Rate Proceeding*	Case No. 2000-373	02/2001
Kentucky-American Water Company Base Rate Rehearing*	Case No. 2000-120	02/2001
Kentucky-American Water Company Rehearing Opposition Testimony*	Case No. 2000-120	03/2001
Union Light Heat and Power Company Gas Base Rate Proceeding*	Case No. 2001-092	09/2001
Louisville Gas & Electric Company and Kentucky Utilities Company Deferred Debits Accounting Order	Case No. 2001-169	10/2001
Fleming-Mason Energy Cooperative Electric Base Rate Proceeding	Case No. 2001-244	05/2002
Northern Kentucky Water District Water District Base Rate Proceeding	Case No. 2003-0224	02/2004
Louisville Gas & Electric Company Electric Base Rate Proceeding*	Case No. 2003-0433	03/2004
Louisville Gas & Electric Company Gas Base Rate Proceeding*	Case No. 2003-0433	03/2004
Delta Natural Gas Company Base Rate Proceeding*	Case No. 2004-00067	07/2004
Union Light Heat and Power Company Gas Base Rate Proceeding*	Case No. 2005-00042	06/2005

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Big Sandy Rural Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00125	08/2005
Louisville Gas & Electric Company Value Delivery Surcredit Mechanism*	Case No. 2005-00352	12/2005
Kentucky Utilities Company Value Delivery Surcredit Mechanism*	Case No. 2005-00351	12/2005
Kentucky Power Company Electric Base Rate Proceeding*	Case No. 2005-00341	01/2006
Cumberland Valley Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00187	05/2006
South Kentucky Rural Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00450	07/2006
Duke Energy Kentucky Electric Base Rate Proceeding*	Case No. 2006-00172	09/2006
Atmos Energy Corporation Gas Show Cause Proceeding*	Case No. 2005-00057	09/2006
Inter County Electric Cooperative Electric Base Rate Proceeding	Case No. 2006-00415	04/2007
Atmos Energy Corporation Gas Base Rate Proceeding*	Case No. 2006-00464	04/2007
Columbia Gas of Kentucky Gas Base Rate Proceeding*	Case No. 2007-00008	06/2007
Delta Natural Gas Company Gas Base Rate Proceeding – Alternative Rate Mechanism*	Case No. 2007-00089	08/2007
Nolin Rural Electric Cooperative Corporation Electric Rate Proceeding	Case No. 2006-00466	09/2007
Fleming-Mason Energy Cooperative Electric Base Rate Proceeding	Case No. 2006-00022	10/2007
Jasckson Energy Cooperative Electric Base Rate Proceeding	Case No. 2007-00333	03/2008

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Prior Regulatory Experience of Robert J. Henkes

Jackson Purchase Energy Corporation Electric Base Rate Proceeding	Case No. 2007-00116	04/2008
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Blue Grass Energy Cooperative Electric Base Rate Proceeding	Case No. 2008-00011	7/2008
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MAINE

Continental Telephone Company of Maine Base Rate Proceeding	Docket 90-040	12/1990
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Central Maine Power Company Electric Base Rate Proceeding	Docket 90-076	03/1991
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New England Telephone Corporation - Maine Chapter 120 Earnings Review	Docket 94-254	12/1994
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MARYLAND

Potomac Electric Power Company Electric Base Rate Proceeding*	Case 7384	01/1980
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Case 7427	08/1980
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Chesapeake and Potomac Telephone Company Western Electric and License Contract	Case 7467	10/1980
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7467	10/1980
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Washington Gas Light Company Gas Base Rate Proceeding	Case 7466	11/1980
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Case 7570	10/1981
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7591	12/1981
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7661	11/1982
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Chesapeake and Potomac Telephone Company Computer Inquiry II*	Case 7661	12/1982
Chesapeake and Potomac Telephone Company Divestiture Base Rate Proceeding*	Case 7735	10/1983
AT&T Communications of Maryland Base Rate Proceeding	Case 7788	1984
Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7851	03/1985
Potomac Electric Power Company Electric Base Rate Proceeding	Case 7878	1985
Delmarva Power and Light Company Electric Base Rate Proceeding	Case 7829	1985

NEW HAMPSHIRE

Granite State Electric Company Electric Base Rate Proceeding	Docket DR 77-63	1977
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NEW JERSEY

Elizabethtown Water Company Water Base Rate Proceeding	Docket 757-769	07/1975
Jersey Central Power and Light Company Electric Base Rate Proceeding	Docket 759-899	09/1975
Middlesex Water Company Water Base Rate Proceeding	Docket 761-37	01/1976
Jersey Central Power and Light Company Electric Base Rate Proceeding	Docket 769-965	09/1976
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings	Docket 761-8	10/1976
Atlantic City Electric Company Electric Base Rate Proceeding*	Docket 772-113	04/1977

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Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket 7711-1107	05/1978
Public Service Electric and Gas Company Raw Materials Adjustment Clause	Docket 794-310	04/1979
Rockland Electric Company Electric Base Rate Proceeding*	Docket 795-413	09/1979
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 802-135	02/1980
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 8011-836	02/1981
Rockland Electric Company Electric Base Rate Proceeding*	Docket 811-6	05/1981
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 8110-883	02/1982
Public Service Electric and Gas Company Electric Fuel Clause Proceeding*	Docket 812-76	08/1982
Public Service Electric and Gas Company Raw Materials Adjustment Clause	Docket 812-76	08/1982
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 8211-1030	11/1982
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 829-777	12/1982
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket 837-620	10/1983
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 8311-954	11/1983
AT&T Communications of New Jersey Base Rate Proceeding*	Docket 8311-1035	02/1984
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 849-1014	11/1984
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Prior Regulatory Experience of Robert J. Henkes

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Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket ER8512-1163	05/1986
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Rockland Electric Company Electric Fuel Clause Proceeding*	Docket ER8609-973	12/1986
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Public Service Electric and Gas Company Electric Fuel Clause Proceeding*	Docket ER8512-1163	02/1988
United Telephone of New Jersey Base Rate Proceeding	Docket TR8810-1187	08/1989
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket ER9009-10695	09/1990
United Telephone of New Jersey Base Rate Proceeding	Docket TR9007-0726J	02/1991
Elizabethtown Gas Company Gas Base Rate Proceeding*	Docket GR9012-1391J	05/1991
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER9109145J	11/1991
Jersey Central Power and Light Company Electric Fuel Clause Proceeding	Docket ER91121765J	03/1992
New Jersey Natural Gas Company Gas Base Rate Proceeding*	Docket GR9108-1393J	03/1992
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket ER91111698J	07/1992
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER92090900J	12/1992
Middlesex Water Company Water Base Rate Proceeding*	Docket WR92090885J	01/1993

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Elizabethtown Water Company Water Base Rate Proceeding*	Docket WR92070774J	02/1993
Public Service Electric and Gas Company Electric Fuel Clause Proceeding	Docket ER91111698J	03/1993
New Jersey Natural Gas Company Gas Base Rate Proceeding*	Docket GR93040114	08/1993
Atlantic City Electric Company Electric Fuel Clause Proceeding	Docket ER94020033	07/1994
Borough of Butler Electric Utility Various Electric Fuel Clause Proceedings	Docket ER94020025	1994
Elizabethtown Water Company Water Base Rate Proceeding	Non-Docketed	11/1994
Public Service Electric and Gas Company Electric Fuel Clause Proceeding	Docket ER 94070293	11/1994
Rockland Electric Company Electric Fuel Clause Proceeding and Purchased Power Contract By-Out	Docket Nos. 940200045 and ER 9409036	12/1994
Jersey Central Power & Light Company Electric Fuel Clause Proceeding	Docket ER94120577	05/1995
Elizabethtown Water Company Purchased Water Adjustment Clause Proceeding*	Docket WR95010010	05/1995
Middlesex Water Company Purchased Water Adjustment Clause Proceeding	Docket WR94020067	05/1995
New Jersey American Water Company* Base Rate Proceeding	Docket WR95040165	01/1996
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER95090425	01/1996
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United Water Vernon Sewage Company Base Rate Proceeding*	Docket WR96030204	07/1996
United Water Great Gorge Company Base Rate Proceeding*	Docket WR96030205	07/1996
South Jersey Gas Company Base Rate Proceeding	Docket GR960100932	08/1996
Middlesex Water Company Purchased Water Adjustment Clause Proceeding*	Docket WR96040307	08/1996
Atlantic City Electric Company Fuel Adjustment Clause Proceeding*	Docket No.ER96030257	08/1996
Public Service Electric & Gas Company and Atlantic City Electric Company Investigation into the continuing outage of the Salem Nuclear Generating Station*	Docket Nos. ES96039158 & ES96030159	10/1996
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket No.EC96110784	01/1997
Consumers New Jersey Water Company Base Rate Proceeding*	Docket No.WR96100768	03/1997
Atlantic City Electric Company Fuel Adjustment Clause Proceeding*	Docket No.ER97020105	08/1997
Public Service Electric & Gas Company Electric Restructuring Proceedings*	Docket Nos. EX912058Y, EO97070461, EO97070462, EO97070463	11/1997
Atlantic City Electric Company Limited Issue Rate Proceeding*	Docket No.ER97080562	12/1997
Rockland Electric Company Limited Issue Rate Proceeding	Docket No.ER97080567	12/1997
South Jersey Gas Company Limited Issue Rate Proceeding	Docket No.GR97050349	12/1997

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New Jersey American Water Company Limited Issue Rate Proceeding	Docket No. WR97070538	12/1997
Elizabethtown Water Company and Mount Holly Water Company Limited Issue Rate Proceedings	Docket Nos. WR97040288, WR97040289	12/1997
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Middlesex Water Company Base Rate Proceeding*	Docket No. WR98090795	03/1999
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New Jersey American Water Company Acquisitions of Water Systems	Docket Nos. WM9910018 WM9910019	09/1999 09/1999
Mount Holly Water Company Merger with Homestead Water Utility	Docket No. WM99020091	10/1999
Applied Wastewater Management, Inc. Merger with Homestead Treatment Utility	Docket No. WM99020090	10/1999
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DSM Adjustment Clause Proceeding	Docket No. GR99070510	03/2000
New Jersey American Water Company Gain on Sale of Land	Docket No. WM99090677	04/2000
Jersey Central Power & Light Company NUG Contract Buydown	Docket No. EM99120958	04/2000
Shore Water Company Base Rate Proceeding	Docket No. WR99090678	05/2000
Shorelands Water Company Water Diversion Rights Acquisition	Docket No. WO00030183	05/2000
Mount Holly and Elizabethtown Water Companies Computer and Billing Services Contracts	Docket Nos. WO99040259 WO9904260	06/2000 06/2000
United Water Resources, Inc. Merger with Suez-Lyonnaise	Docket No. WM99110853	06/2000
E'Town Corporation Merger with Thames, Ltd.	Docket No. WM99120923	08/2000
Consumers Water Company Water Base Rate Proceeding*	Docket No. WR00030174	09/2000
Atlantic City Electric Company Buydown of Purchased Power Contract	Docket No. EE00060388	09/2000
Applied Wastewater Management, Inc. Authorization for Accounting Changes	Docket No. WR00010055	10/2000
Elizabethtown Gas Company Gas Cost Adjustment Clause Proceeding	Docket No. GR00070470	10/2000
DSM Adjustment Clause Proceeding	Docket No. GR00070471	10/2000
Trenton Water Works Water Base Rate Proceeding*	Docket No. WR00020096	10/2000
Middlesex Water Company Water Base Rate Proceeding*	Docket No. WR00060362	11/2000

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New Jersey American Water Company Land Sale - Ocean City	Docket No. WM00060389	11/2000
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Elizabethtown Gas Company Regulatory Treatment of Gain on Sale of Property*	Docket No. GR00070470	02/2001
Wildwood Water Utility Water Base Rate Proceeding*	Docket No. WR00100717	04/2001
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SB Water Company Water Base Rate Proceeding	Docket No. WR01040232	06/2001
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New Jersey American Water Company Financing Proceeding	Docket No. WF01050337	12/2001
Consumers New Jersey Water Company Stock Transfer/Change in Control Proceeding	Docket No. WF01080523	01/2002
Consumers New Jersey Water Company	Docket No. WR02030133	07/2002

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New Jersey American Water Company Change of Control (Merger) Proceeding	Docket No. WM02020072	09/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Direct Testimony*	Docket No. ER02050303	10/2002
United Water Lambertville Land Sale Proceeding	Docket No. WM02080520	11/2002
United Water Vernon Hills & Hampton Management Service Agreement	Docket No. WE02080528	11/2002
United Water New Jersey Metering Contract With Affiliate	Docket No. WO02080536	12/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Surrebuttal and Supplemental Surrebuttal Testimonies*	Docket No. ER02050303	12/2002
Public Service Electric & Gas Company Minimum Pension Liability Proceeding	Docket No. EO02110853	12/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Supplemental Direct Testimony*	Docket No. ER02050303	12/2002
Public Service Electric & Gas Company Electric Deferred Balance Proceeding Direct Testimony*	Docket No. ER02050303	01/2003
Rockland Electric Company Electric Base Rate Proceeding Direct Testimony*	Docket No. ER02100724	01/2003
Public Service Electric & Gas Company Supplemental Direct Testimony*	Docket No. ER02050303	02/2003

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Rockland Electric Company Electric Base Rate Proceeding Supplemental Direct Testimony*	Docket No. ER02100724	02/2003
Consumers New Jersey Water Company Acquisition of Maxim Sewerage Company	Docket No. WM02110808	05/2003
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New Jersey Natural Gas Company Audit of Competitive Services	Docket No. GA02020100	06/2003
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Mount Holly Water Company Water Base Rate Proceeding*	Docket No. WR03070509	12/2003
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Applied Wastewater Management, Inc. Water and Sewer Base Rate Proceeding*	Docket No. WR03030222	01/2004
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Consumers New Jersey Water Company Water Base Rate Proceeding	Docket No. WR02030133	07/2004
Roxiticus Water Company Purchased Water Adjustment Clause	Docket No. WR04060454	08/2004
Rockland Electric Company Societal Benefit Charge Proceeding	Docket No. ET04040235	08/2004
Wildwood Water Utility Water Base Rate Proceeding - Interim Rates	Docket No. WR04070620	08/2004
United Water Toms River Litigation Cost Accounting Proceeding	Docket No. WF04070603	11/2004

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Public Service Electric & Gas Company Customer Account System Proceeding	Docket No. EE04070718	02/2005
Jersey Central Power and Light Company Various Land Sales Proceedings	Docket No. EM04101107 Docket No. EM04101073 Docket No. EM04111473	02/2005 02/2005 03/2005
Environmental Disposal Corporation Water Base Rate Proceeding	Docket No. WR040080760	05/2005
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Pinelands Water Company Water Base Rate Proceeding*	Docket No. WR05080681 03/2006
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Atlantic City Sewerage Company Base Rate and Purchased Sewerage Treatment Clause Proceedings	Docket No. WR07110866	04/2008
SB Water Company Water Base Rate Proceeding	Docket No. WR07110840	04/2008
Aqua New Jersey Water Company Water Base Rate Proceeding	Docket No. WR07120955	06/2008
Environmental Disposal Corporation Water Base Rate Proceeding	Docket No. WR07090715	06/2008
Middlesex Water Company Financing Case	Docket No. WF08040213	07/2008
Aqua New Jersey Water Company Franchise Case	Docket No. WE08040230	07/2008
Aqua New Jersey Water Company Financing Case	Docket No. WF08040216	07/2008
New Jersey American Water Company Water Base Rate Proceeding*	Docket No. WR08010020	07/2008
United Water Toms River, Inc. Water Base Rate Proceeding	Docket No. WR08030139	08/2008

NEW MEXICO

Southwestern Public Service Company Electric Base Rate Proceeding*	Case 1957	11/1985
El Paso Electric Company Rate Moderation Plan	Case 2009	1986
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Gas Company of New Mexico Gas Base Rate Proceeding*	Case 2147	03/1988
El Paso Electric Company Electric Base Rate Proceeding*	Case 2162	06/1988
Public Service Company of New Mexico Phase-In Plan*	Case 2146/Phase II	10/1988
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Gas Base Rate Proceeding*

RHODE ISLAND

Blackstone Valley Electric Company
Electric Base Rate Proceeding

Docket No. 1289

Newport Electric Company
Report on Emergency Relief

VERMONT

Continental Telephone Company of Vermont
Base Rate Proceeding

Docket No. 3986

Green Mountain Power Corporation
Electric Base Rate Proceeding

Docket No. 5695

01/1994

Central Vermont Public Service Corp.
Rate Investigation

Docket No. 5701

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Central Vermont Public Service Corp.
Electric Base Rate Proceeding*

Docket No. 5724

05/1994

Green Mountain Power Corporation
Electric Base Rate Proceeding*

Docket No. 5780

01/1995

Green Mountain Power Corporation
Electric Base Rate Proceeding*

Docket No. 5857

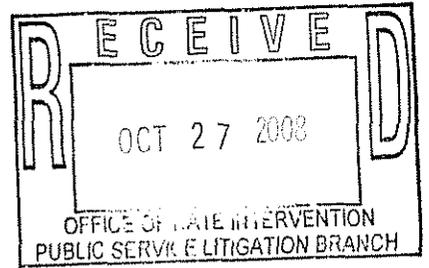
01/1996

VIRGIN ISLANDS

Virgin Islands Telephone Corporation
Base Rate Proceeding*

Docket 126

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION



In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY, INC. FOR AN) CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC AND GAS) C/W
BASE RATES) CASE NO. 2007-00564

AFFIDAVIT OF ROBERT J. HENKES

State of Connecticut)
)
)

Robert J. Henkes, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony, and the Schedules and Appendix attached thereto constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct. Further affiant saith not.

Robert J. Henkes

SUBSCRIBED AND SWORN to before me this 21 day of Oct, 2008.

NOTARY PUBLIC

My Commission Expires: 2/28/10



COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS)	
AND ELECTRIC COMPANY FOR AN)	CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC)	
AND GAS BASE RATES)	

<p>DIRECT TESTIMONY</p> <p>AND EXHIBITS</p> <p>OF</p> <p>ROBERT J. HENKES</p> <p>PERTAINING TO THE GAS CASE</p>
--

**On Behalf of the Office Of Rate Intervention Of The
Attorney General Of The Commonwealth Of Kentucky**

October 28, 2008

**Louisville Gas and Electric Company
Case No. 2008-00252 Gas Rate Case
Direct Testimony of Robert J. Henkes**

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I. STATEMENT OF QUALIFICATIONS

Q. WOULD YOU STATE YOUR NAME AND ADDRESS?

A. My name is Robert J. Henkes and my business address is 7 Sunset Road, Old Greenwich, Connecticut 06870.

Q. WHAT IS YOUR PRESENT OCCUPATION?

A. I am Principal and founder of Henkes Consulting, a financial consulting firm that specializes in utility regulation.

Q. WHAT IS YOUR REGULATORY EXPERIENCE?

A. I have prepared and presented numerous testimonies in rate proceedings involving electric, gas, telephone, water and wastewater companies in jurisdictions nationwide including Arkansas, Delaware, District of Columbia, Georgia, Kentucky, Maryland, New Jersey, New Mexico, Pennsylvania, Vermont, the U.S. Virgin Islands and before the Federal Energy Regulatory Commission. A complete listing of jurisdictions and rate proceedings in which I have been involved is provided in Appendix I attached to this testimony.

Q. WHAT OTHER PROFESSIONAL EXPERIENCE HAVE YOU HAD?

A. Prior to founding Henkes Consulting in 1999, I was a Principal of The Georgetown Consulting Group, Inc. for over 20 years. At Georgetown Consulting I performed the same type of consulting services as I am currently rendering through Henkes

1 Consulting. Prior to my association with Georgetown Consulting, I was employed
2 by the American Can Company as Manager of Financial Controls. Before joining
3 the American Can Company, I was employed by the management consulting
4 division of Touche Ross & Company (now Deloitte & Touche) for over six years.
5 At Touche Ross, my experience, in addition to regulatory work, included numerous
6 projects in a wide variety of industries and financial disciplines such as cash flow
7 projections, bonding feasibility, capital and profit forecasting, and the design and
8 implementation of accounting and budgetary reporting and control systems.

9
10 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

11 A. I hold a Bachelor degree in Management Science received from the Netherlands
12 School of Business, The Netherlands in 1966; a Bachelor of Arts degree received
13 from the University of Puget Sound, Tacoma, Washington in 1971; and an MBA
14 degree in Finance received from Michigan State University, East Lansing,
15 Michigan in 1973. I have also completed the CPA program of the New York
16 University Graduate School of Business.

II. SCOPE AND PURPOSE OF TESTIMONY

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Q. WHAT IS THE SCOPE AND PURPOSE OF THIS TESTIMONY?

A. I was engaged by the Office of Rate Intervention of the Attorney General of Kentucky (“AG”) to conduct a review and analysis and present testimony in the matter of the petition of Louisville Gas and Electric Company (“LG&E” or the “Company”) for an increase in its base rates for gas service.

The purpose of this testimony is to present to the Kentucky Public Service Commission (“KPSC” or the “Commission”) the appropriate gas capitalization and overall rate of return, rate base and pro forma test period operating income, as well as the appropriate gas revenue requirement for the Company in this proceeding.

In the determination of the AG’s recommended capitalization and overall rate of return, rate base, operating income and revenue requirement, I have relied on and incorporated the recommendations of the following other expert witnesses engaged by the AG in this proceeding:

1. Dr. J. Randall Woolridge, concerning the appropriate capital structure ratios, cost rates for short- and long term debt, the return on common equity, and the resulting overall rate of return for the Company in this proceeding; and
2. Mr. Michael Majoros, concerning the appropriate depreciation rates to be adopted by the Commission in this case.

Henkes Direct Testimony
Louisville Gas & Electric Company – Case No. 2008-00252 Gas Case

1 In developing this testimony, I have reviewed and analyzed the Company’s July 29,
2 2008 filing; supporting testimonies, exhibits, filing requirements and workpapers;
3 the Company’s responses to initial and follow-up data requests by the KPSC Staff,
4 AG and other intervenors; and other relevant financial documents and data.

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III. SUMMARY OF FINDINGS AND CONCLUSIONS

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Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN THIS CASE.

A. I have reached the following findings and conclusions in this case:

1. The gas revenue requirement determination in this case should be based on LG&E's capitalization. This revenue requirement determination base has also been proposed by the Company in this rate proceeding and has been consistently applied by the Commission in LG&E's previous gas base rate proceedings [Schedule RJH-1, line 1].
2. The appropriate adjusted gas capitalization as of April 30, 2008, the end of the test period in this case, amounts to \$425.633 million which is the same as the adjusted gas capitalization of \$425.633 million proposed by LG&E [Schedule RJH-1, line 1 and Schedule RJH-2].
3. The AG's expert rate of return witness, Dr. Woolridge, has at this time recommended a short-term debt cost rate of 2.63%, long-term debt cost rate of 5.30%, and a return on equity of 9.20%. These recommended capital cost rates, together with Dr. Woolridge's recommended capital structure ratios produce the AG's recommended overall rate of return on capitalization for LG&E's gas operations of 7.28%. By comparison, the Company has proposed an overall rate of return on capitalization of 8.35% for its gas operations [Schedule RJH-2].

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1 The recommended rate of return on capitalization of 7.28% is equivalent to
2 a rate of return of 6.96% on the Company's adjusted gas rate base [Schedule
3 RJH-3, line 16]. The Company has not presented an equivalent proposed
4 overall return on rate base number for its gas operations.

5 4. The appropriate pro forma adjusted gas rate base measured as of April 30,
6 2008, the end of the test period in this case, amounts to \$445.619 million.
7 The recommended return on rate base amounts to 6.96% [Schedule RJH-3].

8 5. The appropriate pro forma test period gas operating income amounts to
9 \$23.023 million, which is \$5.991 million higher than LG&E's proposed test
10 period gas operating income of \$17.032 million [Schedule RJH-1, line 4 and
11 schedule RJH-4].

12 6. The appropriate revenue conversion factor to be used for rate making
13 purposes in this case is .62143063. This factor has been used by both the
14 Company and the AG [Schedule RJH-1, line 6].

15 7. The application of the recommended overall rate of return of 7.28% to the
16 recommended capital structure of \$425.633 million, combined with the
17 recommended pro forma test period operating income of \$23.023 million
18 and the revenue conversion factor of .62143063 indicates that the Company
19 has an annual revenue deficiency for its gas operations of \$12.835 million.
20 This is \$16.949 million lower than the Company's proposed annual gas
21 revenue deficiency of \$29.784 million [Schedule RJH-1, lines 1-7].

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IV. REVENUE REQUIREMENT ISSUES

A. CAPITALIZATION

Q. PLEASE DESCRIBE THE COMPANY’S PROPOSED TEST YEAR-END ADJUSTED CAPITALIZATION FOR ITS ELECTRIC OPERATIONS IN THIS CASE.

A. The Company has proposed an adjusted gas capitalization of \$425.633 million. As shown on Rives Exhibit 2, the starting point of the Company’s proposed pro forma adjusted gas capitalization is the actual per books total company capitalization as of 4/30/08 of approximately \$2,180.475 million, consisting of short term debt, long term debt, and common equity. The Company then applied a gas rate base ratio of 19.47% to its actual 4/30/08 capitalization of \$2,180.475 million, resulting in its proposed gas capitalization balance of \$424.539 million. Next, the Company adjusted its gas capitalization balance by the addition of the gas-allocated Job Development Tax Credit balance of \$1.094 million, resulting in a proposed adjusted gas capitalization of \$425.633 million.

Q. DO YOU AGREE WITH THE PREVIOUSLY DESCRIBED ADJUSTED GAS CAPITALIZATION BALANCE PROPOSED BY THE COMPANY?

A. Yes, the Company’s proposed adjusted gas capitalization balance of \$425.633 has been determined in accordance with a calculation methodology previously prescribed by the Commission.

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B. RATE OF RETURN ON CAPITALIZATION

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Q. PLEASE DESCRIBE THE AG'S RECOMMENDED RATE OF RETURN ON CAPITALIZATION.

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A. As shown on Schedule RJH-2, page 1, the AG recommends an overall return on capitalization of 7.28% as compared to the Company's proposed overall rate of return number of 8.35%. The AG-recommended overall rate of return number is based on the capital structure ratios and capital cost rates recommended by the AG's rate of return expert, Dr. Woolridge. As shown on Schedule RJH-2, page 1, Dr. Woolridge recommends a short-term debt cost rate of 2.63%, long-term debt cost rate of 5.30% and a return on equity of 9.20%.

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Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL IN THIS CASE THAT THE COMPANY'S RETURN REQUIREMENT BE DETERMINED BY APPLYING THE APPROPRIATE GAS OVERALL RATE OF RETURN TO THE ADJUSTED GAS CAPITALIZATION AT THE END OF THE TEST YEAR?

15

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19

A. Yes. The Company's proposed return requirement approach in this case is consistent with the return requirement rate making policy adopted by the Commission in all of LG&E's prior base rate proceedings.

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1 **C. RATE BASE AND RETURN ON RATE BASE.**

2

3 **Q. HAS THE COMPANY PRESENTED AN ADJUSTED ORIGINAL COST**
4 **RATE BASE FOR ITS GAS OPERATIONS IN ITS FILING SCHEDULES**
5 **IN THIS PROCEEDING?**

6 A. Yes. As shown on Rives Exhibits 3 and 4, the Company is proposing an adjusted
7 original cost rate base of \$438.486 million.

8

9 **Q. HAVE YOU DETERMINED THE APPROPRIATE ADJUSTED ORIGINAL**
10 **COST RATE BASE FOR LG&E'S GAS OPERATIONS IN THIS CASE?**

11 A. Yes, this recommended adjusted gas original cost rate base has been developed on
12 schedule RJH-3. The starting point is LG&E's proposed unadjusted gas original
13 cost rate base of \$441.457 million measured as of the end of the test year, April 30,
14 2008. From that starting point, I then reflected total net rate base additions of
15 \$4.162 million to arrive at my recommended adjusted original cost rate base for
16 LG&E's gas operations of \$445.619 million. This recommended adjusted rate base
17 of \$445.619 million is \$7.1333 million higher than the Company's proposed
18 adjusted rate base of \$438.486 million.

19

20 **Q. WHY IS YOUR RECOMMENDED ADJUSTED ORIGINAL COST GAS**
21 **RATE BASE \$7.133 MILLION HIGHER THAN THE COMPANY'S**
22 **PROPOSED ORIGINAL COST GAS RATE BASE?**

23 A. As just discussed, I have reflected rate base adjustments that *increase* the rate base

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Louisville Gas & Electric Company – Case No. 2008-00252 Gas Case*

1 by \$4.162 million whereas the Company has proposed rate base adjustments that
2 *decrease* the rate base by \$2.971 million. This explains why my recommended
3 adjusted rate base is \$7.133 million higher than the Company's proposed adjusted
4 rate base. Below, I have listed the component reasons for this rate base differential
5 of \$7.133 million:

	<u>LG&E Rate Base</u>	<u>AG Rate Base</u>	<u>Difference</u>
6 Depreciation Reserve Adj.	\$(3.489)	\$4.269	\$7.758
7 Remove Prepaid PSC Fees	-	(.195)	(.195)
8 CWC Adjustment	<u>.518</u>	<u>.088</u>	<u>(0.430)</u>
9 Total	\$(2.971)	\$4.162	\$7.133

10
11 As shown in the above table, by far the largest reason for the rate base differential is
12 the pro forma impact on the depreciation reserve resulting from LG&E's proposal
13 to increase its test year per books depreciation expenses and AG's recommendation
14 to decrease the test year per books depreciation expenses.

15
16 **Q. PLEASE DISCUSS EACH OF THE RECOMMENDED RATE BASE**
17 **ADJUSTMENTS TOTALING \$4.162 MILLION.**

18 A. The first rate base adjustment of \$4.269 million shown on line 3 of the third column
19 of Schedule RJH-3 is a direct result of the AG's recommended annualized
20 depreciation expense adjustment shown on Schedule RJH-7, line 3. This
21 annualized depreciation expense adjustment will be discussed later in this
22 testimony.

23
24 The second rate base adjustment of \$.195 million shown on line 10 of Schedule
25 RJH-3 represents my recommendation to remove prepaid PSC assessments from the

1 total gas prepayment balance in rate base. This adjustment follows well-established
2 and long-standing Commission ratemaking policy.

3
4 The third rate base adjustment of \$88,000 shown on line 11 of Schedule RJH-3 is to
5 adjust the test year per books cash working capital requirement for the pro forma
6 impact on cash working capital of all of the Company's proposed O&M expense
7 adjustments in this case. In its response to AG-1-16, the Company has
8 acknowledged that the correct cash working capital adjustment resulting from its
9 proposed pro forma O&M expense adjustments should be an increase of \$88,000
10 rather than the cash working capital increase of \$518,000 reflected in the
11 Company's as-filed position. It should be noted that the appropriate cash working
12 capital amount to be reflected for ratemaking purposes in this case should
13 ultimately be based on the reflection of all Commission-ordered pro forma test year
14 electric operation and maintenance expenses allowed in this case.

15
16 **Q. HAVE YOU CALCULATED THE APPROPRIATE RETURN ON RATE**
17 **BASE FOR LG&E'S GAS OPERATIONS IN THIS CASE?**

18 A. Yes, as shown on Schedule RJH-3, lines 14 through 16, the Company's appropriate
19 return on rate base in this case is 6.96%

1 **D. OPERATING INCOME**

2

3 **Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED AND YOUR**
4 **RECOMMENDED PRO FORMA GAS OPERATING INCOME FOR THE**
5 **TEST PERIOD IN THIS CASE.**

6 A. The Company's proposed and my recommended pro forma test year gas operating
7 income positions are summarized on schedule RJH-4. The Company has proposed
8 total pro forma test period gas operating income of \$17.032 million. As
9 summarized on schedule RJH-4, I have made a large number of pro forma gas
10 operating income adjustments which, in total, have the effect of increasing the
11 Company's proposed test year gas operating income by \$5.991 million to total
12 recommended pro forma test period gas operating income of \$23.023 million. Each
13 of the recommended gas operating income adjustments will be discussed in detail in
14 the subsequent sections of this testimony.

15

16 - **Interest Synchronization**

17

18 **Q. DOES THE COMMISSON HAVE A RATEMAKING POLICY**
19 **REGARDING INTEREST SYNCHRONIZATION?**

20 A. Yes. The Commission has a well-established ratemaking policy that the interest
21 expenses to be used as a deduction from pro forma test year taxable income be
22 determined by the application of the weighted cost of debt to the adjusted
23 capitalization allowed by the Commission for ratemaking purposes. This so-called

1 pro forma “synchronized” interest expense level should then replace the per books
2 test year interest expense level that was used as a tax deduction in the determination
3 of the test year income taxes. An income tax adjustment should be made for the
4 difference between the pro forma synchronized interest expenses and the test year
5 per books interest expenses.

6
7 **Q. IS THERE AN ISSUE IN THE MANNER IN WHICH LG&E AND THE AG**
8 **HAVE CALCULATED THEIR RESPECTIVE PRO FORMA**
9 **SYNCHRONIZED INTEREST EXPENSE LEVELS?**

10 A. No. As shown on schedule RJH-5, both LG&E and the AG have properly
11 calculated their respective pro forma synchronized interest expense amounts by
12 multiplying their recommended weighted cost of debt percentages included in their
13 overall rate of return numbers times their recommended adjusted capitalization
14 levels. However, since the AG’s recommended weighted cost of debt number is
15 slightly higher than that proposed by LG&E, the AG’s recommended synchronized
16 interest level is slightly higher than LG&E’s proposed synchronized interest level.

17
18 **Q. WHAT IS THE IMPACT OF THESE DIFFERENT SYNCHRONIZED**
19 **INTEREST LEVELS ON THE COMPANY’S PROPOSED TEST YEAR**
20 **AFTER-TAX OPERATING INCOME?**

21 A. As shown on Schedule RJH-5, the AG’s recommended interest synchronization
22 adjustment increases the Company’s proposed test year after-tax income by \$8,000.

23

1 - **Unbilled Revenue Adjustment**

2
3 **Q. IS THERE AN ISSUE WITH REGARD TO THE COMPANY’S PROPOSAL**
4 **TO REMOVE UNBILLED GAS REVENUES FROM THE TEST YEAR?**

5 A. I believe so. The Company has proposed that its unbilled revenues as of April 30,
6 2008, the end of the test year, be removed and be replaced by the unbilled revenues
7 as of April 2007, the beginning of the test year. Since the unbilled revenues at the
8 end of the test year are \$1.203 million higher than the unbilled revenues at the
9 beginning of the test year, the Company’s proposed unbilled revenue adjustment
10 increases the base rate revenue requirement and corresponding base rate increase
11 requested in this case by \$1.203 million. However, as can be seen from the analysis
12 on Schedule RJH-6, only \$37,000 of the \$1.203 unbilled revenue differential is
13 caused by the difference in unbilled base rate revenues at April 30, 2008 vs. April
14 30, 2007. Thus, almost the entire unbilled revenue adjustment of \$1.203 million
15 proposed by the Company is caused by the difference in unbilled GSC, DSM, and
16 VDT surcharge revenues at April 30, 2008 vs. April 30, 2007. On page 8, lines 18 -
17 23 of his testimony, Company witness Bellar states that the costs and revenues
18 associated with ratemaking mechanisms such as the fuel adjustment clause, ECR
19 clause or DSM cost recovery should have no effect on the calculation of the base
20 revenue deficiency and corresponding base rate increase that LG&E is requesting in
21 this case. Yet, this is exactly what the Company is proposing to do through its
22 proposed unbilled revenue adjustment. In summary, I believe it is inappropriate to
23 increase the base rate revenue requirement in this case by \$1.203 million if virtually

1 the entire revenue requirement is caused by the end-of-test year vs. beginning-of-
2 test year differential in unbilled GSC, DSM and VDT surcharge revenues. In
3 addition, the Company has not similarly proposed an adjustment for the differential
4 in the associated end-of-test year vs. beginning-of-test year differential in unbilled
5 GSC and DSM costs.

6
7 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THIS ISSUE?**

8 A. I recommend that the Company's proposed unbilled revenue adjustment be limited
9 to the unbilled base rate revenues and exclude any unbilled revenue considerations
10 for the GSC, DSM, and VDT surcharge mechanisms. As shown on Schedule RJH-
11 6, my recommendation would increase the Company's proposed test year after-tax
12 income by \$.773 million.

13
14 - **Annualized Depreciation Expense**

15
16 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED**
17 **ANNUALIZED DEPRECIATION EXPENSE ADJUSTMENT SHOWN ON**
18 **SCHEDULE RJH-7.**

19 A. The annualized depreciation expense adjustment shown on Schedule RJH-7 is a
20 direct result of the difference between the new depreciation rates proposed in this
21 case by LG&E and those recommended by Michael Majoros, the AG's depreciation
22 expert. The depreciation rates recommended by Mr. Majoros, as applied to the
23 depreciable plant in service balances at the end of the test year, produce \$7.758

1 million lower annualized gas depreciation expenses than proposed by LG&E in this
2 case. This has the result of increasing the Company’s proposed pro forma test year
3 after-tax gas operating income by \$4.837 million.

4
5 **- Labor Cost Adjustment**

6
7 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED LABOR**
8 **COST ADJUSTMENT SHOWN ON SCHEDULE RJH-8.**

9 A. The recommended labor cost adjustment consists of two parts. The first part
10 represents a labor cost adjustment of \$76,000 to correct for an error in the
11 Company’s as-filed labor cost adjustment calculations. The second part represents
12 a labor cost adjustment of \$50,000 to remove certain executive incentive
13 compensation expenses from the test year gas operating expenses.

14
15 As shown on schedule RJH-8, the recommended total labor cost adjustment
16 increases the Company’s proposed test year gas after-tax operating income by
17 approximately \$79,000.

18
19 **- Employee Benefit Cost Adjustment**

20
21 **Q. PLEASE EXPLAIN THE REASON FOR THE RECOMMENDED**
22 **EMPLOYEE BENEFIT COST ADJUSTMENT SHOWN ON SCHEDULE**
23 **RJH-9.**

1 A. The recommended employee benefit cost adjustment total of \$.125 million results
2 from corrections made by the Company in its as-filed cost adjustments for pension,
3 OPEB and Post-Employment Benefit expenses.

4

5 As shown on schedule RJH-9, the recommended total employee benefit cost
6 adjustment increases the Company's proposed test year gas after-tax operating
7 income by approximately \$78,000.

8

9 - **New Bank Credit Facilities Adjustment**

10

11 **Q. HAVE YOU MADE AN ADJUSTMENT TO THE COMPANY'S PROPOSED**
12 **ADJUSTMENT FOR THE NEW BANK CHARGE CREDIT FACILITY**
13 **CHARGES?**

14 A. Yes. As shown on Schedule RJH-10, the Company has proposed an expense
15 adjustment of \$2.375 million for this item. This proposed cost amount assumes
16 letters of credit associated with two anticipated bond issues totaling \$211.335
17 million, an estimated letter of credit fee of 1.1%, and associated annual recurring
18 legal fees of \$50,000. None of these assumptions are firm at this time. For
19 example, in its response to AG-2-18, the Company states with regard to the
20 anticipated bond issues of \$211.335 million:

21 The company currently expects to close on the two bonds in late
22 November 2008 or early December 2008. However, the capital markets
23 are extremely volatile and market conditions may result in the need to
24 modify this plan.

25

1 The letter of credit fees are also uncertain at this time. While the Company initially
2 assumed an annual fee of 1.1% of the total bond issuance amount, in September
3 2008 it revised the estimated annual fee to .5% and most recently revised it again to
4 a rate of .7%. The Company has also provided no support for the legal expense of
5 \$50,000 and has not clarified that this is an annual recurring expense. For these
6 reasons, I do not believe that the expense adjustment amount proposed by the
7 Company in this case is known and measurable at this time.

8
9 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THIS ISSUE**
10 **BASED ON THE FOREGOING FINDINGS AND CONCLUSIONS?**

11 A. I have decided to take a conservative position on this matter. Specifically, rather
12 than rejecting the Company's proposed expense adjustment for the reason that it is
13 not known and measurable at this time, I have assumed the same bond issuance
14 amount of \$211.335 million and the same \$50,000 annual legal fees proposed by
15 the Company. However, I have reflected the most recent available letter of credit
16 fee of .7%, as opposed to the Company's assumed fee of 1.1%. As shown on
17 Schedule RJH-10, based on these conservative assumptions, my recommendation at
18 this time is to reflect a pro forma expense adjustment of \$1.529 million on a total
19 company basis. This recommended expense adjustment should be updated when
20 firm, actual information has become available regarding the amount and timing of
21 the bond issuances, the letter of credit percentage fee, and the annual recurring legal
22 fees prior to the close of record in this case.

23

1 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATIONS REGARDING**
2 **THIS ISSUE ON THE COMPANY’S PROPOSED TEST YEAR AFTER-TAX**
3 **GAS OPERATING INCOME?**

4 A. As shown on Schedule RJH-10, my recommendations regarding this issue increase
5 the Company’s proposed test year after-tax gas operating income by \$.137 million.

6

7 - **MGP Amortization Expense Adjustment**

8

9 **Q. WHAT IS THE ISSUE WITH REGARD TO THE MANUFACTURERS GAS**
10 **PLANT (“MGP”) AMORTIZATION EXPENSE ADDRESSED ON**
11 **SCHEDULE RJH-11?**

12 A. As shown in the responses to AG-1-10 and AG-1-65, the test year includes
13 approximately \$81,000 worth of MGP amortization expenses which will no longer
14 be booked as of September 30, 2008 because at that date the deferred MGP costs
15 will be fully amortized. Since this represents a non-recurring expense, I
16 recommend that it be removed for ratemaking purposes in this case.

17

18 As shown on Schedule RJH-11, my recommendation increases the Company’s
19 proposed after-tax gas operating income by \$51,000.

20

21 - **AGA Dues Adjustment**

22

23 **Q. PLEASE EXPLAIN YOUR RECOMMENDATION TO REMOVE A**

1 **PORTION OF THE COMPANY’S ANNUAL AMERICAN GAS**
2 **ASSOCIATION (“AGA”) DUES FOR RATEMAKING PURPOSES IN THIS**
3 **CASE.**

4 A. The test year gas operating expenses include \$128,000 for AGA dues. Certain
5 portions of AGA activities are dedicated to legislative/regulatory advocacy and
6 other lobbying activities that make up the Public Affairs function of AGA. The
7 Commission has always held that lobbying-related expenses should be treated
8 below-the-line for ratemaking purposes, and I agree with that policy. In response to
9 AG-1-73(b) in this case, the Company provided a functional breakout of AGA
10 activities showing that 27.93% of AGA’s activities are related to the combined
11 Public Affairs/Communications function. The response did not provide a further
12 breakout of the 27.93% between lobbying-related Public Affairs and non-lobbying
13 related Communications activities. However, the response to Post-Hearing
14 Question No. 11 in the Company’s prior rate case, Case No. 2003-00433, *did* show
15 such a breakout and indicated that 22.59% of AGA’s activities are dedicated to the
16 Public Affairs function. Thus, in order not to overstate my recommended
17 adjustment to remove lobbying expenses, I have applied the lower 22.59% ratio to
18 the test year total AGA dues of \$128,000, resulting in a recommended lobbying
19 expense adjustment of \$29,000.

20
21 As shown on Schedule RJH-12, my recommendation increases the Company’s
22 proposed test year after-tax gas operating income by \$18,000.

23

1 - **Miscellaneous Expense Adjustments**

2

3 **Q. PLEASE DESCRIBE THE MISCELLANEOUS ADJUSTMENTS SHOWN**
4 **ON SCHEDULE RJH-13.**

5 A. First, I recommend the removal from test year gas operating expenses of \$8,000 for
6 expenses associated with employee gifts, award banquets, parties and other social
7 events (e.g., company picnics). My recommendation is consistent with previously
8 established Commission-policy that such expenses do not produce benefits to the
9 ratepayers and should be excluded for ratemaking purposes.¹

10

11 Second, I recommend the removal from test year gas operating expenses of
12 approximately \$2,000 worth of penalty and fines expenses. Such expenses should
13 be funded by the Company's stockholders, not ratepayers.

14

15 Third, I have removed approximately \$7,000 of gas expenses associated with real
16 estate receptions and community involvement. As shown in more detail in the
17 responses to AG-2-19 and 2-24, these expenses are for such items as community
18 trade shows, fundraisers, music, florists, showcase gifts, reception catering, valet
19 parking, service charges, etc. I do not believe that such expenses should be funded
20 by the ratepayers as they have nothing to do with the provision of safe, adequate
21 and reliable gas service.

¹ Similar expenses were excluded from rate recognition in the Company's prior electric rate case – see pages 50-51 in the PSC Order in Case No. 2003-00433.

1

2 **Q. WHAT IS THE IMPACT OF YOUR MISCELLANEOUS EXPENSE**
3 **ADJUSTMENT RECOMMENDATIONS ON THE COMPANY'S**
4 **PROPOSED TEST YEAR GAS AFTER-TAX OPERATING INCOME?**

5 A. As shown on schedule RJH-13, the recommended miscellaneous expense
6 adjustments increase the Company's proposed test year gas after-tax operating
7 income by approximately \$11,000.

8

9

10 **Q. MR. HENKES, DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

11 A. Yes, it does.

12

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**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
REVENUE REQUIREMENT
(\$000)**

	LG&E Gas <u>(1)</u>	<u>Adjustments</u>	<u>AG</u>	
1. Capital Structure	\$ 425,633	\$ 0	\$ 425,633	Sch. RJH-2
2. Rate of Return	<u>8.35%</u>		<u>7.28%</u>	Sch. RJH-2
3. Income Requirement	35,540		31,000	
4. Pro Forma Income	<u>17,032</u>	5,991	<u>23,023</u>	Sch. RJH-4
5. Income Deficiency	18,508		7,976	
6. Revenue Conversion Factor	<u>0.62143063</u>		<u>0.62143063</u>	
7. Overall Revenue Deficiency	<u>\$ 29,784</u>	<u>\$ (16,949)</u>	<u>\$ 12,835</u>	

(1) Rives Exhibit 8, page 2

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
ADJUSTED CAPITALIZATION AT 4/30/08
(\$000)**

<u>LG&E PROPOSED:</u>	Adjusted Gas Capitalization (1)	Capitalization Ratios	Cost Rates	Weighted Cost Rates
1. Short Term Debt	\$ 10,126	2.38%	2.63%	0.06%
2. Long Term Debt	192,138	45.14%	5.30%	2.39%
3. Common Equity	<u>223,369</u>	<u>52.48%</u>	11.25%	<u>5.90%</u>
4. Total	<u>\$ 425,633</u>	<u>100.00%</u>		<u>8.35%</u>

<u>AG RECOMMENDED:</u>	Adjusted Gas Capitalization (2)	Capitalization Ratios	Cost Rates (3)	Weighted Cost Rates
1. Short Term Debt	\$ 10,126	2.38%	2.63%	0.06%
2. Long Term Debt	192,138	45.14%	5.30%	2.39%
3. Common Equity	<u>223,369</u>	<u>52.48%</u>	9.20%	<u>4.83%</u>
4. Total	<u>\$ 425,633</u>	<u>100.00%</u>		<u>7.28%</u>

(1) Rives Exhibit 2, page 1

(2) Schedule RJH-2, page 2 of 2, lines 1, 2 and 3

(3) Testimony of J. Randall Woolridge

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
AG's RECOMMENDED CAPITALIZATION
(\$000)**

	<u>Adjusted Total Co. Capitalization</u> (1)	<u>Gas Rate Base Ratio</u> (1)	<u>Adjusted Gas Capitalization</u> (1)	<u>Adjustments to Capitalization</u> [see below]	<u>Total Adjusted Capitalization</u>
1. ST Debt	51,875	19.47%	10,100	26	10,126
2. LT Debt	984,304	19.47%	191,644	494	192,138
3. Equity	<u>1,144,296</u>	19.47%	<u>222,795</u>	<u>574</u>	<u>223,369</u>
4. Total	<u><u>2,180,475</u></u>		<u><u>424,539</u></u>	<u><u>1,094</u></u>	<u><u>425,633</u></u>

	<u>Capital Structure Ratios</u> (2)	<u>JDIC</u> (2)	<u>Total Capitalization Adjustments</u>
5. ST Debt	2.38%	26	26
6. LT Debt	45.14%	494	494
7. Equity	<u>52.48%</u>	<u>574</u>	<u>574</u>
8. Total	<u><u>100.00%</u></u>	<u><u>1,094</u></u>	<u><u>1,094</u></u>

(1) Rives Appendix B - Exhibit 2, page 1 of 2

(2) Rives Appendix B - Exhibit 2, page 2 of 2

(3) Rives Appendix B - Exhibit 2, page 2 of 2, col. (4), corrected for additional removal of non-utility property

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
RETURN ON ORIGINAL COST RATE BASE
(\$000)**

	LG&E Gas (1)	Adjustments	AG	
1. Utility Plant at Original Cost	\$ 677,615		\$ 677,615	
2. Reserve for Depreciation	(232,849)	4,269 (2)	(228,580)	
3. Net Utility Plant	<u>444,766</u>	<u>4,269</u>	<u>449,035</u>	
<u>Deduct:</u>				
4. Customer Advances	(8,043)		(8,043)	
5. Deferred Income Taxes	(51,050)		(51,050)	
6. FAS 109 Deferred Inc. Tax	(4,502)		(4,502)	
7. Net ARO Assets	<u>129</u>		<u>129</u>	
8. Total Deductions	<u>(63,466)</u>		<u>(63,466)</u>	
<u>Add:</u>				
9. M&S and Stored Gas	52,611		52,611	
10. Prepayments	818	(195) (3)	623	
11. Cash Working Capital	6,728	88 (4)	6,816	
12. Mill Creek Ash Dredging	<u>-</u>		<u>-</u>	
13. Total Additions	<u>60,157</u>	<u>(107)</u>	<u>60,050</u>	
14. Total Net Original Rate Base	<u>\$ 441,457</u>	<u>\$ 4,162</u>	<u>\$ 445,619</u>	
15. Income Requirement			\$ 31,000	Sch. RJH-1, L3
16. Return on Rate Base [L15 / L14]			<u>6.96%</u>	

(1) Rives Exhibit 3, page 1

(2) Impact on depreciation reserve of AG's recommended depreciation expense adjustment - see Schedule RJH-7, L3

(3) Per response to AG-1-13: removed prepaid PSC assessments

(4) Per response to AG-1-16: corrected CWC adjustment should be an increase of \$88,157

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
PRO FORMA OPERATING INCOME
(\$000)**

	<u>LG&E Gas</u>	
1. LG&E's Proposed Pro Forma After-Tax Operating Income:	\$ 17,032	Rives Exh. 1, p.3
<u>AG-RECOMMENDED ADJUSTMENTS:</u>		
2. Interest Synchronization	8	Sch. RJH-5
3. Unbilled Revenue Adjustment	773	Sch. RJH-6
4. Annualized Depreciation Expense	4,837	Sch. RJH-7
5. Labor Costs Adjustment	79	Sch. RJH-8
6. Employee Benefit Costs Adjustment	78	Sch. RJH-9
7. New Bank Credit Facilities Adjustment	137	Sch. RJH-10
8. MGP Amortization Adjustment	51	Sch. RJH-11
9. AGA Dues Adjustment	18	Sch. RJH-12
10. Miscellaneous Expense Adjustments	<u>11</u>	Sch. RJH-13
13. AG-Recommended Pro Forma After-Tax Operating Income:	<u><u>\$ 23,023</u></u>	

(1) Calculation: \$9,623,170 x after-tax income factor of 62.35312% = \$6,000,347

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
INTEREST SYNCHRONIZATION ADJUSTMENT
(\$000)**

	LG&E Gas (1)	Adjustments	AG	
1. Adjusted Capitalization	\$ 425,633		\$ 425,633	Sch. RJH-2
2. Weighted Cost of Debt	<u>2.45%</u>		<u>2.46%</u>	Sch. RJH-2
3. Pro Forma Interest Expense	10,428		\$ 10,450	
4. Test Year Per Books Interest Deduction	<u>10,198</u>		<u>10,198</u>	
5. Interest Synchronization Adjustment	230		252	
6. Composite Income Tax Rate	<u>37.64688%</u>		<u>37.64688%</u>	
7. Impact on After-Tax Income	<u>\$ 87</u>	<u>\$ 8</u>	<u>\$ 95</u>	

(1) Rives Exhibit 1, Schedule 1.40

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
UNBILLED REVENUE ADJUSTMENT
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>
<u>Unbilled Revenues at 4/30/07:</u>			
Unbilled Base Revenues	\$ 1,367		\$ 1,367
GSC Revenues	6,195		
DSM Revenues	45		
VDT Revenues	(44)		
Total Unbilled Revenues	<u>\$ 7,563</u>		<u>\$ 1,367</u>
 <u>Unbilled Revenues at 4/30/08:</u>			
Unbilled Base Revenues	\$ 1,330		\$ 1,330
GSC Revenues	7,462		
DSM Revenues	30		
VDT Revenues	(56)		
Total Unbilled Revenues	<u>\$ 8,766</u>		<u>\$ 1,330</u>
 <u>Difference Between 4/30/07 & 4/30/08 Unb. Rev.:</u>			
Unbilled Base Revenues	\$ 37		\$ 37
FAC Revenues	(1,267)		
DSM Revenues	15		
VDT Revenues	12		
Total Unbilled Revenue Adjustment	<u>\$ (1,203)</u>	\$ 1,240	<u>\$ 37</u>
Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
Impact on After-Tax Income		<u>\$ 773</u>	

(1) Rives Exhibit 1, Schedule 1.00; response to AG-1-23; response to AG-2-8

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
ANNUALIZED DEPRECIATION EXPENSE ADJUSTMENT
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>
1. Annualized Depreciation Expense With New Rates	\$ 22,403		\$ 14,645 (2)
2. Test Year Per Books Depr. Exp. Excluding ARO and Post-1995 ECR	<u>18,914</u>		<u>18,914</u>
3. Depreciation Expense Change	<u>\$ 3,489</u>	\$ (7,758)	<u>\$ (4,269)</u>
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
5. Impact on After-Tax Operating Income		<u>\$ 4,837</u>	

(1) Rives Exhibit 1, Schedule 1.11

(2) Testimony of Michael Majoros

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
LABOR COST ADJUSTMENT
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Total Labor and Labor Related Cost Adjustment	\$ 734	\$ (76)	\$ 658	(2)
2. Remove "Other Compensation" Expenses	<u>-</u>	<u>(50)</u>	<u>(50)</u>	(3)
3. Total Labor Cost Adjustment	<u>\$ 734</u>	<u>(126)</u>	<u>\$ 608</u>	
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
5. Impact on After-Tax Operating Income		<u>\$ 79</u>		

(1) Rives Exhibit 1, Schedule 1.15

(2) Rives Exhibit 1, Schedule 1.15, Revised

(3) Response to PSC-2-91(f)2 and amended response to PSC-3-4

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
EMPLOYEE BENEFIT COST ADJUSTMENT
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. Pension Expense Adjustment	\$ 188	\$ (56)	\$ 132	(2)
2. OPEB Expense Adjustment	113	(63)	50	(2)
3. Post-Employment Benefit Expense Adjustment	<u>165</u>	<u>(6)</u>	<u>159</u>	(2)
4. Total Employee Benefits Expense Adjustment	<u>\$ 466</u>	<u>\$ (125)</u>	<u>\$ 341</u>	
5. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
6. Impact on After-Tax Operating Income		<u>\$ 78</u>		

(1) Rives Exhibit 1, Schedules 1.16 and 1.17

(2) Rives Exhibit 1, Schedules 1.16 and 1.17, Revised

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
NEW BANK CREDIT FACILITY EXPENSES
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>
1. <u>Cost of New Bank Credit Facilities:</u>			
- Required New Letter of Credit Amount	\$ 211,335		\$ 211,335
- Letter of Credit Fee	1.1%		0.7% (2)
- Total Estimated Fees	<u>2,325</u>		<u>1,479</u>
- Plus: Legal Costs	50		50
- Total Cost of New Bank Credit Facilities	<u><u>2,375</u></u>	(845)	<u><u>1,529</u></u>
2. Electric Department Ratio		26%	
3. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
4. Impact on After-Tax Operating Income		<u><u>\$ 137</u></u>	

(1) Exhibit 1, Schedule 1.32 and response to PSC-2-10

(2) Response to PSC-2-106, updated 10/23/08

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
MGP AMORTIZATION ADJUSTMENT
(\$000)**

	<u>LG&E Gas</u> (1)	<u>Adjustments</u>	<u>AG</u>	
1. MGP Amortization Expense in Test Year	\$ 81	\$ (81)	\$ -	(2)
2. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>		
3. Impact on After-Tax Operating Income		<u>\$ 51</u>		

(1) Response to AG-1-65

(2) Per response to AG-1-65: amortization is non-recurring as it has expired effective 9/30/08

**LOUISVILLE GAS AND ELECTRIC COMPANY
ELECTRIC RATE CASE
AGA DUES ADJUSTMENT
(\$000)**

1. Total AGA Dues in Test Year	\$	128	(1)
2. Portion of AGA Dues Related to Public Affairs		<u>22.59%</u>	(2)
3. Remove Portion of AGA Dues Dedicated to Lobbying		29	
4. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
5. Impact on After-Tax Operating Income	<u>\$</u>	<u>18</u>	

(1) Response to AG-1-74

(2) Response to Post-Hearing Question No 11 in Case No. 2003-00433

**LOUISVILLE GAS AND ELECTRIC COMPANY
GAS RATE CASE
MISCELLANEOUS EXPENSE ADJUSTMENTS
(\$000)**

1. Remove Expenses Related to Employee Gifts, Award Banquets, Social Events, and Parties	\$	(8)	(1)
2. Remove Fines and Penalties		(2)	(2)
3. Remove Real Estate Reception and Community Involvement Expenses		<u>(7)</u>	(3)
5. Total Miscellaneous Expense Adjustments		(17)	
6. Composite After-Tax Income Factor (1 - .3764688)		<u>62.35312%</u>	
7. Impact on After-Tax Operating Income	<u>\$</u>	<u>11</u>	

(1) Response to AG-1-75

(2) Response to AG-1-77

(3) Real estate reception expenses (gas)
Community involvement expenses (gas)

\$	6,574	AG-1-61 & AG-2-19
	<u>522</u>	AG-1-62 & AG-2-24
<u>\$</u>	<u>7,096</u>	

APPENDIX I

PRIOR REGULATORY EXPERIENCE OF ROBERT J. HENKES

Appendix Page I
Prior Regulatory Experience of Robert J. Henkes

* = Testimonies prepared and submitted

ARKANSAS

Southwestern Bell Telephone Company Divestiture Base Rate Proceeding*	Docket 83-045-U	09/1983
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DELAWARE

Delmarva Power and Light Company Electric Fuel Clause Proceeding	Docket 41-79	04/1980
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Delmarva Power and Light Company Electric Fuel Clause Proceeding	Docket 80-39	02/1981
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Delmarva Power and Light Company Sale of Power Station Generation	Complaint Docket 279-80	04/1981
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Delmarva Power and Light Company Electric Base Rate Proceeding	Docket 81-12	06/1981
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Delmarva Power and Light Company Gas Base Rate Proceeding*	Docket 81-13	08/1981
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 82-45	04/1983
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 83-26	04/1984
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 84-30	04/1985
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Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 85-26	03/1986
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Delmarva Power and Light Company Report of DP&L Operating Earnings*	Docket 86-24	07/1986
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Docket 86-24	12/1986 01/1987
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Delmarva Power and Light Company	Docket 85-26	10/1986
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Appendix Page 2
 Prior Regulatory Experience of Robert J. Henkes

Report Re. PROMOD and Its Use in
 Fuel Clause Proceedings*

Diamond State Telephone Company Base Rate Proceeding*	Docket 86-20	04/1987
Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 87-33	06/1988
Delmarva Power and Light Company Electric Fuel Clause Proceeding*	Docket 90-35F	05/1991
Delmarva Power and Light Company Electric Base Rate Proceeding*	Docket 91-20	10/1991
Delmarva Power and Light Company Gas Base Rate Proceeding*	Docket 91-24	04/1992
Artesian Water Company Water Base Rate Proceeding*	Docket 97-66	07/1997
Artesian Water Company Water Base Rate Proceeding*	Docket 97-340	02/1998
United Water Delaware Water Base Rate Proceeding*	Docket 98-98	08/1998
Delmarva Power and Light Company Revenue Requirement and Stranded Cost Reviews	Not Docketed	12/1998
Artesian Water Company Water Base Rate Proceeding*	Docket 99-197 (Direct Test.)	09/1999
Artesian Water Company Water Base Rate Proceeding*	Docket 99-197 (Supplement. Test)	10/1999
Tidewater Utilities/ Public Water Co. Water Base Rate Proceedings*	Docket No. 99-466	03/2000
Delmarva Power & Light Company Competitive Services Margin Sharing Proceeding*	Docket No. 00-314	03/2001
Artesian Water Company Water Base Rate Proceeding*	Docket No. 00-649	04/2001

Appendix Page 3
Prior Regulatory Experience of Robert J. Henkes

Chesapeake Gas Company Gas Base Rate Proceeding*	Docket No. 01-307	12/2001
Tidewater Utilities Water Base Rate Proceeding*	Docket No. 02-28	07/2002
Artesian Water Company Water Base Rate Proceeding*	Docket No. 02-109	09/2002
Delmarva Power & Light Company Electric Cost of Service Proceeding	Docket No. 02-231	03/2003
Delmarva Power & Light Company Gas Base Rate Proceeding*	Docket No. 03-127	08/2003
Artesian Water Company Water Base Rate Proceeding*	Docket No. 04-42	08/2004
United Water Delaware Water Base Rate Proceeding*	Docket No. 06-174	10/2006
 <u>DISTRICT OF COLUMBIA</u>		
District of Columbia Natural Gas Co. Gas Base Rate Proceeding*	Formal Case 870	05/1988
District of Columbia Natural Gas Co. Gas Base Rate Proceeding*	Formal Case 890	02/1990
District of Columbia Natural Gas Co. Waiver of Certain GS Provisions	Formal Case 898	08/1990
Chesapeake and Potomac Telephone Co. Base Rate Proceeding*	Formal Case 850	07/1991
Chesapeake and Potomac Telephone Co. Base Rate Proceeding*	Formal Case 926	10/1993
Bell Atlantic - District of Columbia SPF Surcharge Proceeding	Formal Case 926	06/19/94
Bell Atlantic - District of Columbia Price Cap Plan and Earnings Review	Formal Case 814 IV	07/1995

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Prior Regulatory Experience of Robert J. Henkes

GEORGIA

Southern Bell Telephone Company Base Rate Proceeding	Docket 3465-U	08/1984
Southern Bell Telephone Company Base Rate Proceeding	Docket 3518-U	08/1985
Georgia Power Company Electric Base Rate and Nuclear Power Plant Phase-In Proceeding*	Docket 3673-U	08/1987
Georgia Power Company Electric Base Rate and Nuclear Power Plant Phase-In Proceeding*	Docket 3840-U	08/1989
Southern Bell Telephone Company Base Rate Proceeding	Docket 3905-U	08/1990
Southern Bell Telephone Company Implementation, Administration and Mechanics of Universal Service Fund*	Docket 3921-U	10/1990
Atlanta Gas Light Company Gas Base Rate Proceeding*	Docket 4177-U	08/1992
Southern Bell Telephone Company Report on Cash Working Capital*	Docket 3905-U	03/1993
Atlanta Gas Light Company Gas Base Rate Proceeding*	Docket No. 4451-U	08/1993
Atlanta Gas Light Company Gas Base Rate Proceeding	Docket No. 5116-U	08/1994
Georgia Independent Telephone Companies Earnings Review and Show Cause Proceedings	Various Dockets	1994
Georgia Power Company Earnings Review - Report to GPSC*	Non-Docketed	09/1995
Georgia Alltel Telecommunication Companies Earnings and Rate Reviews	Docket No. 6746-U	07/1996
Frontier Communications of Georgia Earnings and Rate Review	Docket No. 4997-U	07/1996

Appendix Page 5
Prior Regulatory Experience of Robert J. Henkes

Georgia Power Company Electric Base Rate / Accounting Order Proceeding	Docket No. 9355-U	12/1998
Savannah Electric Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 14618-U	03/2002
Georgia Power Company Electric Base Rate / Alternative Rate Plan Proceeding*	Docket No. 18300-U	12/2004
Savannah Electric Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 19758-U	03/2005
Georgia Power Company Electric Base Rate Case/Alternative Rate Plan*	Docket No. 25060-U	10/2007

FERC

Philadelphia Electric/Conowingo Power Electric Base Rate Proceeding*	Docket ER 80-557/558	07/1981
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KENTUCKY

Kentucky Power Company Electric Base Rate Proceeding*	Case 8429	04/1982
Kentucky Power Company Electric Base Rate Proceeding*	Case 8734	06/1983
Kentucky Power Company Electric Base Rate Proceeding*	Case 9061	09/1984
South Central Bell Telephone Company Base Rate Proceeding*	Case 9160	01/1985
Kentucky-American Water Company Base Rate Proceeding*	Case 97-034	06/1997
Delta Natural Gas Company Base Rate Proceeding*	Case 97-066	07/1997
Kentucky Utilities and LG&E Company Environmental Surcharge Proceeding	97-SC-1091-DG	01/1999

Appendix Page 6
Prior Regulatory Experience of Robert J. Henkes

Delta Natural Gas Company Experimental Alternative Regulation Plan*	Case No. 99-046	07/1999
Delta Natural Gas Company Base Rate Proceeding*	Case No. 99-176	09/1999
Louisville Gas & Electric Company Gas Base Rate Proceeding*	Case No. 2000-080	06/2000
Kentucky-American Water Company Base Rate Proceeding*	Case No. 2000-120	07/2000
Jackson Energy Cooperative Corporation Electric Base Rate Proceeding*	Case No. 2000-373	02/2001
Kentucky-American Water Company Base Rate Rehearing*	Case No. 2000-120	02/2001
Kentucky-American Water Company Rehearing Opposition Testimony*	Case No. 2000-120	03/2001
Union Light Heat and Power Company Gas Base Rate Proceeding*	Case No. 2001-092	09/2001
Louisville Gas & Electric Company and Kentucky Utilities Company Deferred Debits Accounting Order	Case No. 2001-169	10/2001
Fleming-Mason Energy Cooperative Electric Base Rate Proceeding	Case No. 2001-244	05/2002
Northern Kentucky Water District Water District Base Rate Proceeding	Case No. 2003-0224	02/2004
Louisville Gas & Electric Company Electric Base Rate Proceeding*	Case No. 2003-0433	03/2004
Louisville Gas & Electric Company Gas Base Rate Proceeding*	Case No. 2003-0433	03/2004
Delta Natural Gas Company Base Rate Proceeding*	Case No. 2004-00067	07/2004
Union Light Heat and Power Company Gas Base Rate Proceeding*	Case No. 2005-00042	06/2005

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Prior Regulatory Experience of Robert J. Henkes

Big Sandy Rural Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00125	08/2005
Louisville Gas & Electric Company Value Delivery Surcredit Mechanism*	Case No. 2005-00352	12/2005
Kentucky Utilities Company Value Delivery Surcredit Mechanism*	Case No. 2005-00351	12/2005
Kentucky Power Company Electric Base Rate Proceeding*	Case No. 2005-00341	01/2006
Cumberland Valley Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00187	05/2006
South Kentucky Rural Electric Cooperative Electric Base Rate Proceeding	Case No. 2005-00450	07/2006
Duke Energy Kentucky Electric Base Rate Proceeding*	Case No. 2006-00172	09/2006
Atmos Energy Corporation Gas Show Cause Proceeding*	Case No. 2005-00057	09/2006
Inter County Electric Cooperative Electric Base Rate Proceeding	Case No. 2006-00415	04/2007
Atmos Energy Corporation Gas Base Rate Proceeding*	Case No. 2006-00464	04/2007
Columbia Gas of Kentucky Gas Base Rate Proceeding*	Case No. 2007-00008	06/2007
Delta Natural Gas Company Gas Base Rate Proceeding – Alternative Rate Mechanism*	Case No. 2007-00089	08/2007
Nolin Rural Electric Cooperative Corporation Electric Rate Proceeding	Case No. 2006-00466	09/2007
Fleming-Mason Energy Cooperative Electric Base Rate Proceeding	Case No. 2006-00022	10/2007
Jasckson Energy Cooperative Electric Base Rate Proceeding	Case No. 2007-00333	03/2008

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Prior Regulatory Experience of Robert J. Henkes

Jackson Purchase Energy Corporation Electric Base Rate Proceeding	Case No. 2007-00116	04/2008
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Blue Grass Energy Cooperative Electric Base Rate Proceeding	Case No. 2008-00011	7/2008
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MAINE

Continental Telephone Company of Maine Base Rate Proceeding	Docket 90-040	12/1990
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Central Maine Power Company Electric Base Rate Proceeding	Docket 90-076	03/1991
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New England Telephone Corporation - Maine Chapter 120 Earnings Review	Docket 94-254	12/1994
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MARYLAND

Potomac Electric Power Company Electric Base Rate Proceeding*	Case 7384	01/1980
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Case 7427	08/1980
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Chesapeake and Potomac Telephone Company Western Electric and License Contract	Case 7467	10/1980
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7467	10/1980
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Washington Gas Light Company Gas Base Rate Proceeding	Case 7466	11/1980
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Delmarva Power and Light Company Electric Base Rate Proceeding*	Case 7570	10/1981
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7591	12/1981
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Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7661	11/1982
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Prior Regulatory Experience of Robert J. Henkes

Chesapeake and Potomac Telephone Company Computer Inquiry II*	Case 7661	12/1982
Chesapeake and Potomac Telephone Company Divestiture Base Rate Proceeding*	Case 7735	10/1983
AT&T Communications of Maryland Base Rate Proceeding	Case 7788	1984
Chesapeake and Potomac Telephone Company Base Rate Proceeding*	Case 7851	03/1985
Potomac Electric Power Company Electric Base Rate Proceeding	Case 7878	1985
Delmarva Power and Light Company Electric Base Rate Proceeding	Case 7829	1985
 <u>NEW HAMPSHIRE</u>		
Granite State Electric Company Electric Base Rate Proceeding	Docket DR 77-63	1977
 <u>NEW JERSEY</u>		
Elizabethtown Water Company Water Base Rate Proceeding	Docket 757-769	07/1975
Jersey Central Power and Light Company Electric Base Rate Proceeding	Docket 759-899	09/1975
Middlesex Water Company Water Base Rate Proceeding	Docket 761-37	01/1976
Jersey Central Power and Light Company Electric Base Rate Proceeding	Docket 769-965	09/1976
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings	Docket 761-8	10/1976
Atlantic City Electric Company Electric Base Rate Proceeding*	Docket 772-113	04/1977

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Prior Regulatory Experience of Robert J. Henkes

Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket 7711-1107	05/1978
Public Service Electric and Gas Company Raw Materials Adjustment Clause	Docket 794-310	04/1979
Rockland Electric Company Electric Base Rate Proceeding*	Docket 795-413	09/1979
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 802-135	02/1980
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 8011-836	02/1981
Rockland Electric Company Electric Base Rate Proceeding*	Docket 811-6	05/1981
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 8110-883	02/1982
Public Service Electric and Gas Company Electric Fuel Clause Proceeding*	Docket 812-76	08/1982
Public Service Electric and Gas Company Raw Materials Adjustment Clause	Docket 812-76	08/1982
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 8211-1030	11/1982
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 829-777	12/1982
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket 837-620	10/1983
New Jersey Bell Telephone Company Base Rate Proceeding	Docket 8311-954	11/1983
AT&T Communications of New Jersey Base Rate Proceeding*	Docket 8311-1035	02/1984
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket 849-1014	11/1984
AT&T Communications of New Jersey	Docket 8311-1064	05/1985

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Base Rate Proceeding*

Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket ER8512-1163	05/1986
Public Service Electric and Gas Company Electric Fuel Clause Proceeding*	Docket ER8512-1163	07/1986
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket ER8609-973	12/1986
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket ER8710-1189	01/1988
Public Service Electric and Gas Company Electric Fuel Clause Proceeding*	Docket ER8512-1163	02/1988
United Telephone of New Jersey Base Rate Proceeding	Docket TR8810-1187	08/1989
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket ER9009-10695	09/1990
United Telephone of New Jersey Base Rate Proceeding	Docket TR9007-0726J	02/1991
Elizabethtown Gas Company Gas Base Rate Proceeding*	Docket GR9012-1391J	05/1991
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER9109145J	11/1991
Jersey Central Power and Light Company Electric Fuel Clause Proceeding	Docket ER91121765J	03/1992
New Jersey Natural Gas Company Gas Base Rate Proceeding*	Docket GR9108-1393J	03/1992
Public Service Electric and Gas Company Electric and Gas Base Rate Proceedings*	Docket ER91111698J	07/1992
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER92090900J	12/1992
Middlesex Water Company Water Base Rate Proceeding*	Docket WR92090885J	01/1993

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Elizabethtown Water Company Water Base Rate Proceeding*	Docket WR92070774J	02/1993
Public Service Electric and Gas Company Electric Fuel Clause Proceeding	Docket ER91111698J	03/1993
New Jersey Natural Gas Company Gas Base Rate Proceeding*	Docket GR93040114	08/1993
Atlantic City Electric Company Electric Fuel Clause Proceeding	Docket ER94020033	07/1994
Borough of Butler Electric Utility Various Electric Fuel Clause Proceedings	Docket ER94020025	1994
Elizabethtown Water Company Water Base Rate Proceeding	Non-Docketed	11/1994
Public Service Electric and Gas Company Electric Fuel Clause Proceeding	Docket ER 94070293	11/1994
Rockland Electric Company Electric Fuel Clause Proceeding and Purchased Power Contract By-Out	Docket Nos. 940200045 and ER 9409036	12/1994
Jersey Central Power & Light Company Electric Fuel Clause Proceeding	Docket ER94120577	05/1995
Elizabethtown Water Company Purchased Water Adjustment Clause Proceeding*	Docket WR95010010	05/1995
Middlesex Water Company Purchased Water Adjustment Clause Proceeding	Docket WR94020067	05/1995
New Jersey American Water Company* Base Rate Proceeding	Docket WR95040165	01/1996
Rockland Electric Company Electric Fuel Clause Proceeding	Docket ER95090425	01/1996
United Water of New Jersey Base Rate Proceeding*	Docket WR95070303	01/1996
Elizabethtown Water Company Base Rate Proceeding*	Docket WR95110557	03/1996

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New Jersey Water and Sewer Adjustment Clauses Rulemaking Proceeding*	Non-Docketed	03/1996
United Water Vernon Sewage Company Base Rate Proceeding*	Docket WR96030204	07/1996
United Water Great Gorge Company Base Rate Proceeding*	Docket WR96030205	07/1996
South Jersey Gas Company Base Rate Proceeding	Docket GR960100932	08/1996
Middlesex Water Company Purchased Water Adjustment Clause Proceeding*	Docket WR96040307	08/1996
Atlantic City Electric Company Fuel Adjustment Clause Proceeding*	Docket No.ER96030257	08/1996
Public Service Electric & Gas Company and Atlantic City Electric Company Investigation into the continuing outage of the Salem Nuclear Generating Station*	Docket Nos. ES96039158 & ES96030159	10/1996
Rockland Electric Company Electric Fuel Clause Proceeding*	Docket No.EC96110784	01/1997
Consumers New Jersey Water Company Base Rate Proceeding*	Docket No.WR96100768	03/1997
Atlantic City Electric Company Fuel Adjustment Clause Proceeding*	Docket No.ER97020105	08/1997
Public Service Electric & Gas Company Electric Restructuring Proceedings*	Docket Nos. EX912058Y, EO97070461, EO97070462, EO97070463	11/1997
Atlantic City Electric Company Limited Issue Rate Proceeding*	Docket No.ER97080562	12/1997
Rockland Electric Company Limited Issue Rate Proceeding	Docket No.ER97080567	12/1997
South Jersey Gas Company Limited Issue Rate Proceeding	Docket No.GR97050349	12/1997

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New Jersey American Water Company Limited Issue Rate Proceeding	Docket No. WR97070538	12/1997
Elizabethtown Water Company and Mount Holly Water Company Limited Issue Rate Proceedings	Docket Nos. WR97040288, WR97040289	12/1997
United Water of New Jersey, United Water Toms River and United Water Lambertville Limited Issue Rate Proceedings	Docket Nos. WR9700540, WR97070541, WR97070539	12/1997
Public Service Electric & Gas Company Electric Restructuring Proceedings*	Docket Nos. EX912058Y, EO97070461, EO97070462, EO97070463	01/1998
Consumers New Jersey Water Company Base Rate Proceeding*	Docket No. WR97080615	01/1998
New Jersey-American Water Company Base Rate Proceeding*	Docket No. WR98010015	07/1998
Consumers New Jersey Water Company Merger Proceeding	Docket No. WM98080706	12/1998
Atlantic City Electric Company Fuel Adjustment Clause Proceeding*	Docket No. ER98090789	02/1999
Middlesex Water Company Base Rate Proceeding*	Docket No. WR98090795	03/1999
Mount Holly Water Company Base Rate Proceeding - Phase I*	Docket No. WR99010032	07/1999
Mount Holly Water Company Base Rate Proceeding - Phase II*	Docket No. WR99010032	09/1999
New Jersey American Water Company Acquisitions of Water Systems	Docket Nos. WM9910018 WM9910019	09/1999 09/1999
Mount Holly Water Company Merger with Homestead Water Utility	Docket No. WM99020091	10/1999
Applied Wastewater Management, Inc. Merger with Homestead Treatment Utility	Docket No. WM99020090	10/1999
Environmental Disposal Corporation (Sewer)	Docket No. WR99040249	02/2000

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Base Rate Proceeding*

Elizabethtown Gas Company Gas Cost Adjustment Clause Proceeding DSM Adjustment Clause Proceeding	Docket No. GR99070509 03/2000 Docket No. GR99070510 03/2000
New Jersey American Water Company Gain on Sale of Land	Docket No. WM99090677 04/2000
Jersey Central Power & Light Company NUG Contract Buydown	Docket No. EM99120958 04/2000
Shore Water Company Base Rate Proceeding	Docket No. WR99090678 05/2000
Shorelands Water Company Water Diversion Rights Acquisition	Docket No. WO00030183 05/2000
Mount Holly and Elizabethtown Water Companies Computer and Billing Services Contracts	Docket Nos. WO99040259 06/2000 WO9904260 06/2000
United Water Resources, Inc. Merger with Suez-Lyonnaise	Docket No. WM99110853 06/2000
E'Town Corporation Merger with Thames, Ltd.	Docket No. WM99120923 08/2000
Consumers Water Company Water Base Rate Proceeding*	Docket No. WR00030174 09/2000
Atlantic City Electric Company Buydown of Purchased Power Contract	Docket No. EE00060388 09/2000
Applied Wastewater Management, Inc. Authorization for Accounting Changes	Docket No. WR00010055 10/2000
Elizabethtown Gas Company Gas Cost Adjustment Clause Proceeding DSM Adjustment Clause Proceeding	Docket No. GR00070470 10/2000 Docket No. GR00070471 10/2000
Trenton Water Works Water Base Rate Proceeding*	Docket No. WR00020096 10/2000
Middlesex Water Company Water Base Rate Proceeding*	Docket No. WR00060362 11/2000

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New Jersey American Water Company Land Sale - Ocean City	Docket No. WM00060389	11/2000
Pineland Water Company Water Base Rate Proceeding*	Docket No. WR00070454	12/2000
Pineland Wastewater Company Wastewater Base Rate Proceeding*	Docket No. WR00070455	12/2000
Elizabethtown Gas Company Regulatory Treatment of Gain on Sale of Property*	Docket No. GR00070470	02/2001
Wildwood Water Utility Water Base Rate Proceeding*	Docket No. WR00100717	04/2001
Roxbury Water Company Water Base Rate Proceeding	Docket No. WR01010006	06/2001
SB Water Company Water Base Rate Proceeding	Docket No. WR01040232	06/2001
Pennsgrove Water Company Water Base Rate Proceeding*	Docket No. WR00120939	07/2001
Public Service Electric & Gas Company Gas Base Rate Proceeding* Direct Testimony	Docket No. GR01050328	08/2001
Public Service Electric & Gas Company Gas Base Rate Proceeding* Surrebuttal Testimony	Docket No. GR01050328	09/2001
Elizabethtown Water Company Water Base Rate Proceeding*	Docket No. WR01040205	10/2001
Middlesex Water Company Financing Proceeding	Docket No. WF01090574	12/2001
New Jersey American Water Company Financing Proceeding	Docket No. WF01050337	12/2001
Consumers New Jersey Water Company Stock Transfer/Change in Control Proceeding	Docket No. WF01080523	01/2002
Consumers New Jersey Water Company	Docket No. WR02030133	07/2002

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Water Base Rate Proceeding

New Jersey American Water Company Change of Control (Merger) Proceeding*	Docket No. WM01120833	07/2002
Borough of Haledon – Water Department Water Base Rate Proceeding*	Docket No. WR01080532	07/2002
New Jersey American Water Company Change of Control (Merger) Proceeding	Docket No. WM02020072	09/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Direct Testimony*	Docket No. ER02050303	10/2002
United Water Lambertville Land Sale Proceeding	Docket No. WM02080520	11/2002
United Water Vernon Hills & Hampton Management Service Agreement	Docket No. WE02080528	11/2002
United Water New Jersey Metering Contract With Affiliate	Docket No. WO02080536	12/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Surrebuttal and Supplemental Surrebuttal Testimonies*	Docket No. ER02050303	12/2002
Public Service Electric & Gas Company Minimum Pension Liability Proceeding	Docket No. EO02110853	12/2002
Public Service Electric & Gas Company Electric Base Rate Proceeding Supplemental Direct Testimony*	Docket No. ER02050303	12/2002
Public Service Electric & Gas Company Electric Deferred Balance Proceeding Direct Testimony*	Docket No. ER02050303	01/2003
Rockland Electric Company Electric Base Rate Proceeding Direct Testimony*	Docket No. ER02100724	01/2003
Public Service Electric & Gas Company Supplemental Direct Testimony*	Docket No. ER02050303	02/2003

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Rockland Electric Company Electric Base Rate Proceeding Supplemental Direct Testimony*	Docket No. ER02100724	02/2003
Consumers New Jersey Water Company Acquisition of Maxim Sewerage Company	Docket No. WM02110808	05/2003
Rockland Electric Company Audit of Competitive Services	Docket No. EA02020098	06/2003
New Jersey Natural Gas Company Audit of Competitive Services	Docket No. GA02020100	06/2003
Public Service Electric & Gas Company Audit of Competitive Services	Docket No. EA02020097	06/2003
Mount Holly Water Company Water Base Rate Proceeding*	Docket No. WR03070509	12/2003
Elizabethtown Water Company Water Base Rate Proceeding*	Docket No. WR03070510	12/2003
New Jersey-American Water Company Water and Sewer Base Rate Proceeding*	Docket No. WR03070511	12/2003
Applied Wastewater Management, Inc. Water and Sewer Base Rate Proceeding*	Docket No. WR03030222	01/2004
Middlesex Water Company Water Base Rate Proceeding	Docket No. WR03110900	04/2004
Consumers New Jersey Water Company Water Base Rate Proceeding	Docket No. WR02030133	07/2004
Roxiticus Water Company Purchased Water Adjustment Clause	Docket No. WR04060454	08/2004
Rockland Electric Company Societal Benefit Charge Proceeding	Docket No. ET04040235	08/2004
Wildwood Water Utility Water Base Rate Proceeding - Interim Rates	Docket No. WR04070620	08/2004
United Water Toms River Litigation Cost Accounting Proceeding	Docket No. WF04070603	11/2004

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Lake Valley Water Company Water Base Rate Proceeding	Docket No. WR04070722	12/2004
Public Service Electric & Gas Company Customer Account System Proceeding	Docket No. EE04070718	02/2005
Jersey Central Power and Light Company Various Land Sales Proceedings	Docket No. EM04101107 Docket No. EM04101073 Docket No. EM04111473	02/2005 02/2005 03/2005
Environmental Disposal Corporation Water Base Rate Proceeding	Docket No. WR040080760	05/2005
Universal Service Fund Compliance Filing For 7 New Jersey Electric and Gas Utilities	Docket No. EX00020091	05/2005
Rockland Electric Company Societal Benefit Charge Proceeding	Docket No. ET05040313	08/2005
Public Service Electric & Gas Company Buried Underground Distribution Tariff Proceeding	Docket No. ET05010053	08/2005
Aqua New Jersey Acquisition of Berkeley Water Co. Water Merger Proceeding	Docket No. WM04121767	08/2005
Middlesex Water Company Water Base Rate Proceeding	Docket No. WR05050451	10/2005
Public Service Electric & Gas Company Land Sale Proceeding	Docket No. EM05070650	10/2005
Public Service Electric & Gas Company Merger of PSEG and Exelon Corporation Direct Testimony	Docket No. EM05020106	11/2005
Public Service Electric & Gas Company* Merger of PSEG and Exelon Corporation Surrebuttal Testimony	Docket No. EM05020106	12/2005
Public Service Electric & Gas Company* Financial Review of Electric Operations	Docket No. ER02050303	12/2005
Rockland Electric Company Competitive Services Audit	Docket No. EA02020098	12/2005
Public Service Electric & Gas Company	Docket No. EE04070718	01/2006

Customer Accounting System Cost Recovery

Roxiticus Water Company Stock Sale and Change of Ownership and Control	Docket No. WM05080755 01/2006
Public Service Electric & Gas Company Competitive Services Audit	Docket No. EA02020097 02/2006
Wildwood Water Company Water Base Rate Proceeding	Docket No. WR05070613 03/2006
Pinelands Water Company Water Base Rate Proceeding*	Docket No. WR05080681 03/2006
Pinelands Wastewater Company Wastewater Base Rate Proceeding*	Docket No. WR05080680 03/2006
Aqua New Jersey Water Company Water Base Rate Proceeding*	Docket No. WR05121022 06/2006
Public Service Electric & Gas Company Gas Base Rate Proceeding*	Docket No. GR05100845 07/2006
New Jersey American Company Consolidated Water Base Rate Proceeding,* New Jersey American Water Company, Elizabethtown Water Company, and Mount Holly Water Company	Docket No. WR06030257 10/2006
Roxiticus Water Company Water Base Rate Proceeding	Docket No. WR06120884 04/2007
United Water Company of New Jersey Change of Control Proceeding	Docket No. WM06110767 05/2007
United Water Company of New Jersey Water Base Rate Proceeding*	Docket No. WR07020135 09/2007
Middlesex Water Company Water Base Rate Proceeding	Docket No. WR07040275 09/2007
Maxim Wastewater Company Purchased Sewerage Treatment Adjustment Clause	Docket No. WR07080632 11/2007
Fayson Lake Water Company Financing Case	Docket No. WF07080593 12/2007

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Atlantic City Electric Company Sales of Utility Properties	Docket No. EM07100800	12/2007
Atlantic City Sewerage Company Base Rate and Purchased Sewerage Treatment Clause Proceedings	Docket No. WR07110866	04/2008
SB Water Company Water Base Rate Proceeding	Docket No. WR07110840	04/2008
Aqua New Jersey Water Company Water Base Rate Proceeding	Docket No. WR07120955	06/2008
Environmental Disposal Corporation Water Base Rate Proceeding	Docket No. WR07090715	06/2008
Middlesex Water Company Financing Case	Docket No. WF08040213	07/2008
Aqua New Jersey Water Company Franchise Case	Docket No. WE08040230	07/2008
Aqua New Jersey Water Company Financing Case	Docket No. WF08040216	07/2008
New Jersey American Water Company Water Base Rate Proceeding*	Docket No. WR08010020	07/2008
United Water Toms River, Inc. Water Base Rate Proceeding	Docket No. WR08030139	08/2008

NEW MEXICO

Southwestern Public Service Company Electric Base Rate Proceeding*	Case 1957	11/1985
El Paso Electric Company Rate Moderation Plan	Case 2009	1986
El Paso Electric Company Electric Base Rate Proceeding	Case 2092	06/1987

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Gas Company of New Mexico Gas Base Rate Proceeding*	Case 2147	03/1988
El Paso Electric Company Electric Base Rate Proceeding*	Case 2162	06/1988
Public Service Company of New Mexico Phase-In Plan*	Case 2146/Phase II	10/1988
El Paso Electric Company Electric Base Rate Proceeding*	Case 2279	11/1989
Gas Company of New Mexico Gas Base Rate Proceeding*	Case 2307	04/1990
El Paso Electric Company Rate Moderation Plan*	Case 2222	04/1990
Generic Electric Fuel Clause - New Mexico Amendments to NMPSC Rule 550	Case 2360	02/1991
Southwestern Public Service Company Rate Reduction Proceeding	Case 2573	03/1994
El Paso Electric Company Base Rate Proceeding	Case 2722	02/1998

OHIO

Dayton Power and Light Company Electric Base Rate Proceeding	Case 76-823	1976
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PENNSYLVANIA

Duquesne Light Company Electric Base Rate Proceeding*	R.I.D. No. R-821945	09/1982
AT&T Communications of Pennsylvania Base Rate Proceeding*	Docket P-830452	04/1984
AT&T Communications of Pennsylvania Base Rate Proceeding*	Docket P-830452	11/1984
National Fuel Gas Distribution Company	Docket R-870719	12/1987

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

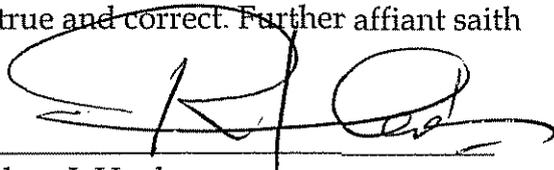
In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY, INC. FOR AN) CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC AND GAS) C/W
BASE RATES) CASE NO. 2007-00564

AFFIDAVIT OF ROBERT J. HENKES

State of Connecticut)
)
)

Robert J. Henkes, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony, and the Schedules and Appendix attached thereto constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct. Further affiant saith not.



Robert J. Henkes

SUBSCRIBED AND SWORN to before me this 21 day of Oct, 2008.



NOTARY PUBLIC

My Commission Expires: 2/28/10



**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:)
)
THE APPLICATION OF THE)
LOUISVILLE GAS & ELECTRIC COMPANY))
TO INCREASE ITS GAS SERVICE RATES)**

CASE NO. 2008-00252

**DIRECT TESTIMONY
OF
DR. J. RANDALL WOOLRIDGE**

October 28, 2008

Louisville Gas & Electric Company

Direct Testimony of Dr. J. Randall Woolridge

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LIST OF EXHIBIT

<u>Exhibit</u>	<u>Title</u>
JRW-1	Recommended Rate of Return
JRW-2	Summary Financial Statistics
JRW-3	Capital Structure Ratios and Debt Cost Rates
JRW-4	Public Utility Capital Cost Indicators
JRW-5	Industry Average Betas
JRW-6	DCF Study
JRW-7	CAPM Study
JRW-8	Comparison of Nonutility and Utility Groups
JRW-9	<i>Wall Street Journal</i> – Rosy Analysts' Forecasts
JRW-10	GDP and S&P Historical Growth Rates

1 **Q. PLEASE STATE YOUR FULL NAME, ADDRESS, AND**
2 **OCCUPATION.**

3
4 A. My name is J. Randall Woolridge, and my business address is 120 Haymaker
5 Circle, State College, PA 16801. I am a Professor of Finance and the
6 Goldman, Sachs & Co. and Frank P. Smeal Endowed University Fellow in
7 Business Administration at the University Park Campus of the Pennsylvania
8 State University. I am also the Director of the Smeal College Trading Room
9 and President of the Nittany Lion Fund, LLC. A summary of my educational
10 background, research, and related business experience is provided in
11 Appendix A.

12
13 **I. SUBJECT OF TESTIMONY AND SUMMARY OF**
14 **RECOMMENDATIONS**
15

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

18
19 A. I have been asked by the Kentucky Office of Attorney General (“OAG”) to
20 provide an opinion as to the overall fair rate of return or cost of capital for the
21 Louisville Gas & Electric (“LG&E” or “Company”) and to evaluate LG&E’s
22 rate of return testimony in this proceeding.

23
24 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

25 A. First I will review my cost of capital recommendation for LG&E, and review the
26 primary areas of contention between LG&E’s rate of return position and OAG.
27 Second, I provide an assessment of capital costs in today’s capital markets.

1 Third, I discuss my proxy group of electric utility companies for estimating the
2 cost of capital for LG&E. Fourth, I present my recommendations for the
3 Company's capital structure and debt cost rate. Fifth, I discuss the concept of
4 the cost of equity capital, and then estimate the equity cost rate for LG&E.
5 Finally, I critique Company's rate of return analysis and testimony. I have a
6 table of contents just after the title page for a more detailed outline.

7 **Q. PLEASE REVIEW YOUR RECOMMENDATIONS REGARDING THE**
8 **APPROPRIATE RATE OF RETURN FOR LG&E.**
9

10 A. I am using the capital structure developed by OAG Witness Robert Henkes.
11 My analysis indicates that the capital structure ratios, which are identical to
12 those proposed by the LG&E, are very fair given the capitalizations of electric
13 utility and gas distribution companies. I have adopted the Company's
14 proposed short-term and long-term debt cost rates. I have estimated individual
15 equity cost rates for LG&E's electric utility and gas distribution operations. I
16 have applied the Discounted Cash Flow Model ("DCF") and the Capital Asset
17 Pricing Model ("CAPM") to a proxy group of publicly-held electric utility
18 companies ("Electric Proxy Group") and gas distribution companies ("Gas
19 Proxy Group"). My analysis indicates an equity cost rate in the range of 8.2%-
20 9.9% for LG&E's electric utility operations and an equity cost rate in the
21 range of 8.2%-9.2% for LG&E's electric utility operations. I have used the
22 upper end of the ranges - 9.9% for electric and 9.2% for gas - as my equity
23 cost rates in recognition of the volatile capital market conditions. However, I

1 reserve the right to update my equity cost rate recommendations prior to
2 hearings. This is because, in my opinion, the current market conditions are in
3 disequilibrium as investors attempt to sort out the economic consequences of
4 the collapse of the financial sector and the unprecedented bail out by the U. S.
5 government. In addition, certain financial data have not been updated to
6 reflect the current economic situation. Using my capital structure and debt
7 and equity cost rates, I am recommending an overall rate of return of 7.65%
8 for the electric utility operations and 7.28% for gas distribution operations.
9 These findings are summarized in Exhibit JRW-1.

10 **Q. PLEASE SUMMARIZE THE PRIMARY ISSUES REGARDING RATE**
11 **OF RETURN IN THIS PROCEEDING.**

12 A. Mr. S. Bradford Rives provides the Company's proposed capital structure and
13 debt cost rates and Dr. William E. Avera provides LG&E's proposed common
14 equity cost rate. My analysis suggests that the Company's recommended
15 capital structure with a common equity ratio of 52.48% is very fair to LG&E,
16 especially for the electric utility operations. I do employ the Company's debt
17 cost rates. As such, the primary area of contention in this case is the
18 proposed equity cost rate for LG&E. Dr. Avera's equity cost rate estimate is
19 11.25%, whereas my analysis indicates an equity cost rate of 9.90% is
20 appropriate for LG&E's electric utility operations and 9.20% is appropriate
21 for LG&E's gas distribution operations.
22

1 Both Dr. Avera and I have applied the DCF and the CAPM approaches
2 to groups of publicly-held utility companies. Dr. Avera has also used an
3 Expected Earnings approach to estimate an equity cost rate for LG&E. As
4 discussed in my testimony, my equity cost rate recommendation is consistent
5 with the current economic environment. Long-term capital costs are at
6 historical low levels. The yields on long-term Treasury bonds have been in
7 the 4-5 percent range for several years. Prior to this cyclical decline in rates in
8 2002, these yields had not been this low over an extended period of time since
9 the 1960s. Long-term capital costs are also low due to the decline in the
10 equity risk premium and the Jobs and Growth Tax Relief Reconciliation Act
11 of 2003, which reduced the tax rates on dividend income and capital gains.

12 Dr. Avera employs a proxy group that includes several companies
13 which receive a low percentage of revenues from regulated utility operations.
14 In addition, he employs an inappropriate non-utility proxy group. With
15 respect to the application of the DCF model, the major area of disagreement is
16 the expected DCF growth rate. Dr. Avera relies on the earnings per share
17 (“EPS”) growth rate forecasts of Wall Street analysts and *Value Line* for his
18 DCF growth rate. I demonstrate that there is a well-known upward bias to
19 these growth rate forecasts.

20 The CAPM approach requires an estimate of the risk-free interest rate,
21 beta, and the equity risk premium. Dr. Avera’s risk-free rate is above current
22 market interest rates. However, the primary problem with his CAPM is his
23 market risk premium of 8.90%. I provide evidence that this market risk

1 premium is based on an expected stock market return that is not reflective of
2 current market fundamentals. I also demonstrate that this expected market
3 return is also based on an expected EPS growth rate that is not reasonable
4 given prospective economic and earnings growth. On the other hand, I use a
5 market risk premium which (1) uses alternative approaches to estimating a
6 market premium and (2) employs the results of over thirty studies and surveys
7 of the market risk premium. As I note, my market risk premium is consistent
8 with the market risk premiums (1) discovered in recent academic studies by
9 leading finance scholars, (2) employed by leading investment banks and
10 management consulting firms, and (3) that result from surveys of financial
11 forecasters and corporate CFOs.

12 Finally, Dr. Avera's Expected Earnings approach is subject to a number
13 of errors and, therefore, does not provide a reliable estimate of the Company's
14 cost of equity capital. Furthermore, this methodology, which is not market-
15 based, has not been used by regulatory commissions for years as an equity cost
16 rate approach.

17 In the end, the most significant areas of disagreement between Dr.
18 Avera and me with respect to the cost of equity are: (1) the appropriate DCF
19 growth rate, and (2) the measurement and magnitude of the market risk
20 premium which is used in CAPM approach.

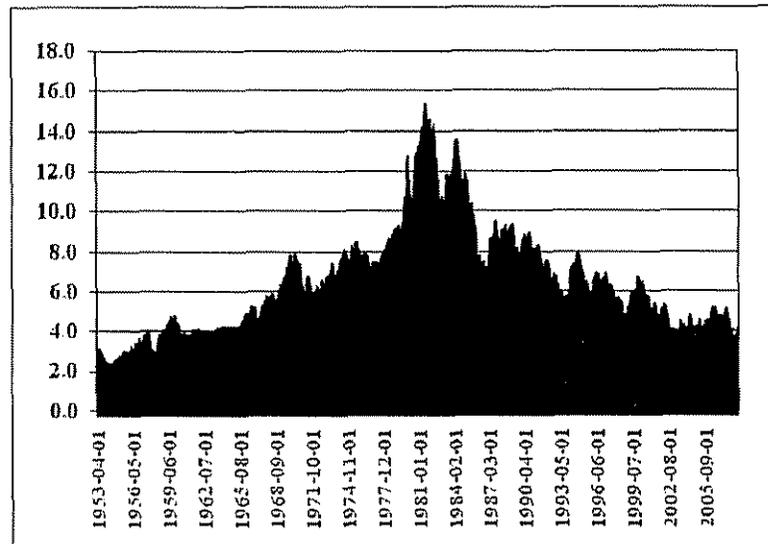
21

1 **II. CAPITAL COSTS IN TODAY'S MARKETS**

2 **Q. PLEASE DISCUSS CAPITAL COSTS IN TODAY'S MARKETS.**

3 A. Long-term capital cost rates for U.S. corporations are currently at their lowest
4 levels in more than four decades. Corporate capital cost rates are determined
5 by the level of interest rates and the risk premium demanded by investors to
6 buy the debt and equity capital of corporate issuers. The base level of long-
7 term interest rates in the U.S. economy is indicated by the rates on ten-year
8 U.S. Treasury bonds. The rates are provided in the graph below from 1953 to
9 the present. As indicated, prior to the decline in rates that began in the year
10 2000, the 10-year Treasury yield had not consistently been in the 4-5 percent
11 range over an extended period of time since the 1960s.

12 **Yields on Ten-Year Treasury Bonds**
13 **1953-Present**



Source: <http://research.stlouisfed.org/fred2/series/GS10?cid=115>

14
15
16

1 The second base component of the corporate capital cost rates is the
2 risk premium. The risk premium is the return premium required by investors
3 to purchase riskier securities. The equity risk premium is the return premium
4 required to purchase stocks as opposed to bonds. Since the equity risk
5 premium is not readily observable in the markets (as are bond risk premiums),
6 and there are alternative approaches to estimating the equity premium, it is the
7 subject of much debate. One way to estimate the equity risk premium is to
8 compare the mean returns on bonds and stocks over long historical periods.
9 Measured in this manner, the equity risk premium has been in the 5-7 percent
10 range. But recent studies by leading academics indicate the forward-looking
11 equity risk premium is in the 3-4 percent range. These authors indicate that
12 historical equity risk premiums are upwardly biased measures of expected
13 equity risk premiums. Jeremy Siegel, a Wharton finance professor and author
14 of the book *Stocks for the Long Term*, published a study entitled “The
15 Shrinking Equity Risk Premium.”¹ He concludes:

16 The degree of the equity risk premium calculated from
17 data estimated from 1926 is unlikely to persist in the
18 future. The real return on fixed-income assets is likely
19 to be significantly higher than estimated on earlier data.
20 This is confirmed by the yields available on Treasury
21 index-linked securities, which currently exceed 4%.
22 Furthermore, despite the acceleration in earnings
23 growth, the return on equities is likely to fall from its
24 historical level due to the very high level of equity
25 prices relative to fundamentals.

¹ Jeremy J. Siegel, “The Shrinking Equity Risk Premium,” *The Journal of Portfolio Management* (Fall, 1999), p. 15.

1 Alan Greenspan, the former Chairman of the Federal Reserve Board,
2 indicated in an October 14, 1999, speech on financial risk that the fact that
3 equity risk premiums declined during 1990s is “not in dispute.” His
4 assessment focused on the relationship between information availability and
5 equity risk premiums.

6 There can be little doubt that the dramatic
7 improvements in information technology in recent years
8 have altered our approach to risk. Some analysts
9 perceive that information technology has permanently
10 lowered equity premiums and, hence, permanently
11 raised the prices of the collateral that underlies all
12 financial assets.

13 The reason, of course, is that information is critical to
14 the evaluation of risk. The less that is known about the
15 current state of a market or a venture, the less the ability
16 to project future outcomes and, hence, the more those
17 potential outcomes will be discounted.

18 The rise in the availability of real-time information has
19 reduced the uncertainties and thereby lowered the
20 variances that we employ to guide portfolio decisions.
21 At least part of the observed fall in equity premiums in
22 our economy and others over the past five years does
23 not appear to be the result of ephemeral changes in
24 perceptions. It is presumably the result of a permanent
25 technology-driven increase in information availability,
26 which by definition reduces uncertainty and therefore
27 risk premiums. This decline is most evident in equity
28 risk premiums. It is less clear in the corporate bond
29 market, where relative supplies of corporate and
30 Treasury bonds and other factors we cannot easily
31 identify have outweighed the effects of more readily
32 available information about borrowers.²

² Alan Greenspan, “Measuring Financial Risk in the Twenty-First Century,” Office of the Comptroller of the Currency Conference, October 14, 1999.

1 In sum, the relatively low interest rates in today's markets as well as
2 the lower risk premiums required by investors indicate that capital costs for
3 U.S. companies are the lowest in decades.

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8 **III. PROXY GROUP SELECTION**

9
10 **Q. PLEASE DESCRIBE YOUR APPROACH TO DEVELOPING A FAIR**
11 **RATE OF RETURN RECOMMENDATION FOR LG&E.**

12 A. I have separately developed an equity cost rate for the electric utility and the
13 gas distribution operations of LG&E. Hence, to develop a fair rate of return
14 recommendation for LG&E, I have evaluated the return requirements of
15 investors on the common stock of a proxy group of publicly-held electric
16 utility companies for LG&E's electric utility operations and a proxy group of
17 gas distribution companies for LG&E's gas distribution operations.
18

19 **Q. PLEASE DESCRIBE YOUR PROXY GROUPS OF ELECTRIC**
20 **UTILITY COMPANIES AND GAS DISTRIBUTION COMPANIES.**

21 A. My Electric Proxy Group proxy group consists of twenty-one electric utility
22 companies. This group includes companies that meet the following criteria: (1)
23 listed as an electric utility or as a combination electric and gas utility by *AUS*
24 *Utility Reports*, (2) regulated electric revenues must be at least 75% of total
25

1 revenues; (3) current data available in the Standard Edition of the *Value Line*
2 *Investment Survey*; (4) an investment grade bond rating; and (5) an annual
3 dividend history of three years. Summary financial statistics for the Electric
4 Proxy are listed in Exhibit JRW-2. The average operating revenues and net plant
5 for the Electric Proxy Group are \$5,863.7M and \$10,435.4M, respectively. On
6 average, the group receives 89% of revenues from regulated electric utility
7 operations, has a 'Baa1' Moody's bond rating, a common equity ratio of 43%,
8 an earned return on common equity of 10.2%, and sells at a market-to-book ratio
9 of 1.63X.

10 My Gas Proxy Group proxy group consists of ten natural gas distribution
11 companies covered by the Standard Edition of the *Value Line Investment Survey*.
12 These companies include AGL Resource, Atmos Energy, Laclede Group, New
13 Jersey Resources, Nicor, Inc., Northwest Natural Gas Company, Piedmont
14 Natural Gas Company, South Jersey Industries, Southwest Gas, and WGL
15 Holdings. Summary financial statistics for the proxy group are listed in Exhibit
16 JRW-2. The average operating revenues and net plant for the Gas Proxy Group
17 are \$2,671.7M and \$2,176.7M, respectively. On average, the group receives
18 68% of revenues from regulated gas operations, has an 'A3' Moody's bond
19 rating, a common equity ratio of 53%, and an earned return on common equity
20 of 11.2%.

1 **IV. CAPITAL STRUCTURE RATIOS AND DEBT COST RATES**

2 **Q. WHAT IS THE RECOMMENDED CAPITAL STRUCTURE OF THE**
3 **COMPANY?**

4
5 A. The Company's recommended capital structure is shown in Panel A of page 1
6 of Exhibit JRW-3. The Company is requesting a capital structure consisting
7 of 2.38% short-term debt, 45.14% long-term debt, and a 52.48% common
8 equity.

9 **Q. PLEASE DISCUSS THE CAPITAL STRUCTURE YOU ARE USING**
10 **IN THIS CASE.**
11

12 A. Mr. Robert Henkes has developed OAG's capital structure. Whereas Mr.
13 Henkes has made adjustments to the capital amounts, his recommended
14 capital structure ratios are identical to those proposed by the Company. On
15 page 2 of Exhibit JRW-3 I provide the average common equity ratios for the
16 companies in my proxy groups. The average common equity ratios for the
17 Electric Proxy Group and the Gas Proxy Group are 43.7% and 49.9%
18 respectively. This analysis suggests that the capital structures proposed by the
19 Company and adopted by OAG are very fair to the Company, especially for
20 the electric utility operations.

21
22 **Q. ARE YOU ADOPTING THE COMPANY'S SHORT-TERM AND**
23 **LONG-TERM DEBT COST RATES OF 2.63% AND 5.30%?**
24

25 A. Yes.

1

2

III. THE COST OF COMMON EQUITY CAPITAL

3

A. Overview

4

Q. **WHY MUST AN OVERALL COST OF CAPITAL OR FAIR RATE OF RETURN BE ESTABLISHED FOR A PUBLIC UTILITY?**

5

6

7

A. In a competitive industry, the return on a firm's common equity capital is determined through the competitive market for its goods and services. Due to the capital requirements needed to provide utility services, however and to the economic benefit to society from avoiding duplication of these services, some public utilities are monopolies. It is not appropriate to permit monopoly utilities to set their own prices because of the lack of competition and the essential nature of the services. Thus, regulation seeks to establish prices that are fair to consumers and at the same time are sufficient to meet the operating and capital costs of the utility (i.e., provide an adequate return on capital to attract investors).

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Q. **PLEASE PROVIDE AN OVERVIEW OF THE COST OF CAPITAL IN THE CONTEXT OF THE THEORY OF THE FIRM.**

19

20

A. The total cost of operating a business includes the cost of capital. The cost of common equity capital is the expected return on a firm's common stock that the marginal investor would deem sufficient to compensate for risk and the time value of money. In equilibrium, the expected and required rates of return on a company's common stock are equal.

21

22

23

24

1 Normative economic models of the firm, developed under very
2 restrictive assumptions, provide insight into the relationship between firm
3 performance or profitability, capital costs, and the value of the firm. Under
4 the economist's ideal model of perfect competition where entry and exit is
5 costless, products are undifferentiated, and there are increasing marginal costs
6 of production, firms produce up to the point where price equals marginal cost.
7 Over time, a long-run equilibrium is established where price equals average
8 cost, including the firm's capital costs. In equilibrium, total revenues equal
9 total costs, and because capital costs represent investors' required return on
10 the firm's capital, actual returns equal required returns and the market value
11 and the book value of the firm's securities must be equal.

12 In the real world, firms can achieve competitive advantage due to
13 product market imperfections. Most notably, companies can gain competitive
14 advantage through product differentiation (adding real or perceived value to
15 products) and by achieving economies of scale (decreasing marginal costs of
16 production). Competitive advantage allows firms to price products above
17 average cost and thereby earn accounting profits greater than those required to
18 cover capital costs. When these profits are in excess of that required by
19 investors, or when a firm earns a return on equity in excess of its cost of
20 equity, investors respond by valuing the firm's equity in excess of its book
21 value.

22 James M. McTaggart, founder of the international management
23 consulting firm Marakon Associates, has described this essential relationship

1 between the return on equity, the cost of equity, and the market-to-book ratio
2 in the following manner:³

3 Fundamentally, the value of a company is determined
4 by the cash flow it generates over time for its owners,
5 and the minimum acceptable rate of return required by
6 capital investors. This “cost of equity capital” is used
7 to discount the expected equity cash flow, converting it
8 to a present value. The cash flow is, in turn, produced
9 by the interaction of a company’s return on equity and
10 the annual rate of equity growth. High return on equity
11 (ROE) companies in low-growth markets, such as
12 Kellogg, are prodigious generators of cash flow, while
13 low ROE companies in high-growth markets, such as
14 Texas Instruments, barely generate enough cash flow to
15 finance growth.

16 A company’s ROE over time, relative to its cost of
17 equity, also determines whether it is worth more or less
18 than its book value. If its ROE is consistently greater
19 than the cost of equity capital (the investor’s minimum
20 acceptable return), the business is economically
21 profitable and its market value will exceed book value.
22 If, however, the business earns an ROE consistently
23 less than its cost of equity, it is economically
24 unprofitable and its market value will be less than book
25 value.

26 As such, the relationship between a firm’s return on equity, cost of
27 equity, and market-to-book ratio is relatively straightforward. A firm that
28 earns a return on equity above its cost of equity will see its common stock sell
29 at a price above its book value. Conversely, a firm that earns a return on
30 equity below its cost of equity will see its common stock sell at a price below
31 its book value.

³ James M. McTaggart, “The Ultimate Poison Pill: Closing the Value Gap,” *Commentary* (Spring 1988), p. 2.

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Q. PLEASE PROVIDE ADDITIONAL INSIGHTS INTO THE RELATIONSHIP BETWEEN RETURN ON EQUITY AND MARKET-TO-BOOK RATIOS.

A. This relationship is discussed in a classic Harvard Business School case study entitled "A Note on Value Drivers." On page 2 of that case study, the author describes the relationship very succinctly:⁴

For a given industry, more profitable firms – those able to generate higher returns per dollar of equity – should have higher market-to-book ratios. Conversely, firms which are unable to generate returns in excess of their cost of equity should sell for less than book value.

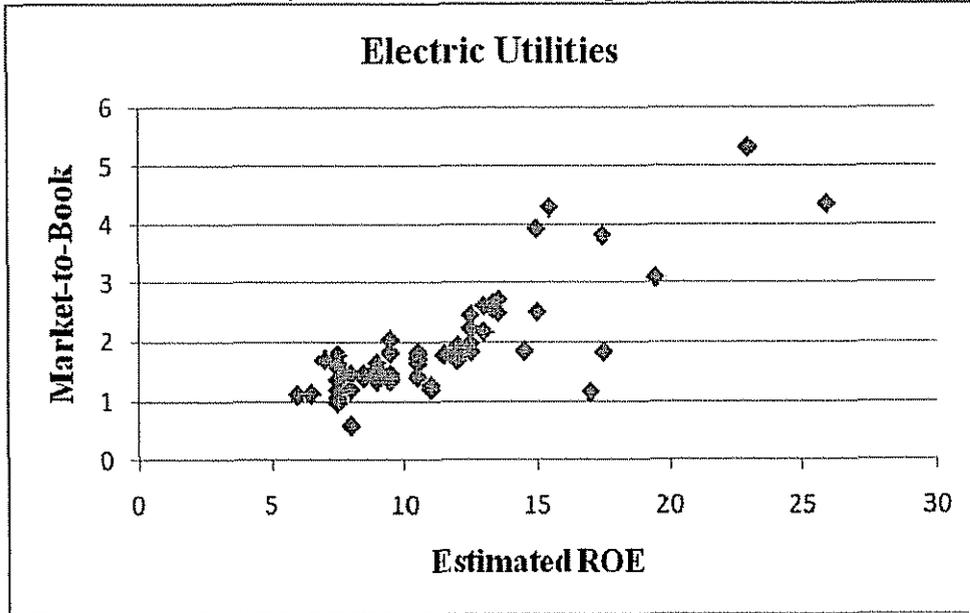
<u>Profitability</u>	<u>Value</u>
<i>If ROE > K</i>	<i>then Market/Book > 1</i>
<i>If ROE = K</i>	<i>then Market/Book = 1</i>
<i>If ROE < K</i>	<i>then Market/Book < 1</i>

To assess the relationship by industry, as suggested above, I have performed a regression study between estimated return on equity and market-to-book ratios using natural gas distribution, electric utility and water utility companies. I used all companies in these three industries which are covered by *Value Line* and who have estimated return on equity and market-to-book ratio data. The results are presented below.

⁴ Benjamin Esty, "A Note on Value Drivers," Harvard Business School, Case No. 9-297-082, April 7, 1997.

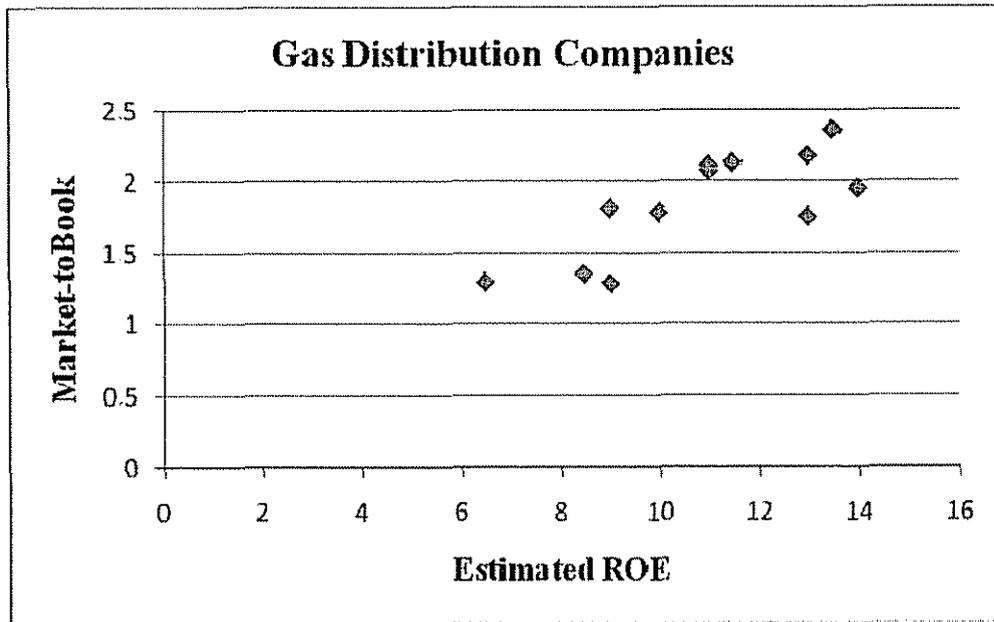
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2

The Relationship Between Estimated ROE and Market-to-Book Ratios Value Line Electrics, Gas Distribution Companies, and Water Utilities



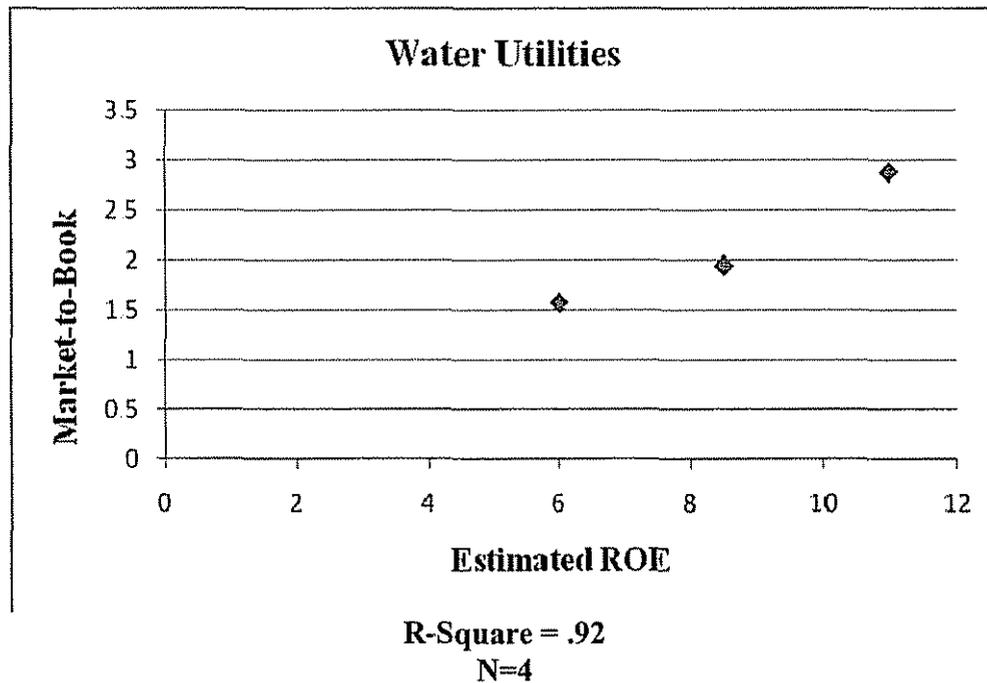
R-Square = .65
N=56

3
4
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6
7



R-Square = .60
N=12

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The average R-squares for the electric, gas, and water companies are 0.65, 0.60, and 0.92.⁵ This demonstrates the strong positive relationship between ROEs and market-to-book ratios for public utilities.

7
8

Q. WHAT ECONOMIC FACTORS HAVE AFFECTED THE COST OF EQUITY CAPITAL FOR PUBLIC UTILITIES?

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14

A. Exhibit JRW-4 provides indicators of public utility equity cost rates over the past decade. Page 1 shows the yields on 10-year 'A' rated public utility bonds. These yields peaked in the 1990s at 8.5%, then declined and again hit the 8.0 percent range in the year 2000. They subsequently declined, hovering in the 4.5 to 5.0 percent range between 2003 and 2005. They increased to

⁵ R-square measures the percent of variation in one variable (e.g., market-to-book ratios) explained by another variable (e.g., expected return on equity). R-squares vary between zero and 1.0, with values closer to 1.0 indicating a higher relationship between two variables.

1 6.0% in June, of 2006, declined and then once again increased to over 6.0% in
2 the summer of 2007. They retreated to the 5.50% range by the end of 2007.
3 Page 2 provides the dividend yields for the fifteen utilities in the Dow Jones
4 Utilities Average over the past decade. These yields peaked in 1994 at 7.2%
5 and have gradually declined over the past decade. As of 2007 these yields and
6 were 3.35%.

7 Average earned returns on common equity and market-to-book ratios
8 are given on page 3 of Exhibit JRW-4. Over the past decade, earned returns
9 on common equity have consistently been in the 11.0%-13.0% range. The
10 average ROE peaked at 13.45% in 2001 and subsequently declined through
11 the year 2006 before recovering in 2007. Over the past decade, market-to-
12 book ratios for this group have increased gradually but with several ups and
13 downs. The market-to-book average was 1.83 as of 2001, declined to 1.50 in
14 2003 and increased to 2.2 as of 2007.

15 The indicators in Exhibit JRW-4, coupled with the overall decrease in
16 interest rates, suggest that capital costs for the Dow Jones Utilities have
17 decreased over the past decade.

18 **Q. WHAT FACTORS DETERMINE INVESTORS' EXPECTED OR**
19 **REQUIRED RATE OF RETURN ON EQUITY?**

20 **A.** The expected or required rate of return on common stock is a function of
21 market-wide, as well as company-specific, factors. The most important
22 market factor is the time value of money as indicated by the level of interest
23

1 rates in the economy. Common stock investor requirements generally
2 increase and decrease with like changes in interest rates. The perceived risk
3 of a firm is the predominant factor that influences investor return requirements
4 on a company-specific basis. A firm's investment risk is often separated into
5 business and financial risk. Business risk encompasses all factors that affect a
6 firm's operating revenues and expenses. Financial risk results from incurring
7 fixed obligations in the form of debt in financing its assets.

8 **Q. HOW DOES THE INVESTMENT RISK OF PUBLIC UTILITY**
9 **COMPANIES COMPARE WITH THAT OF OTHER INDUSTRIES?**

10
11 A. Due to the essential nature of their service as well as their regulated status,
12 public utilities are exposed to a lesser degree of business risk than other, non-
13 regulated businesses. The relatively low level of business risk allows public
14 utilities to meet much of their capital requirements through borrowing in the
15 financial markets, thereby incurring greater than average financial risk.
16 Nonetheless, the overall investment risk of public utilities is below most other
17 industries.

18 Exhibit JRW-5 provides an assessment of investment risk for 100
19 industries as measured by beta, which according to modern capital market
20 theory is the only relevant measure of investment risk. These betas come
21 from the *Value Line Investment Survey* and are compiled by Aswath
22 Damodoran of New York University.⁶ The study shows that the investment

⁶ They may be found on the Internet at <http://www.stern.nyu.edu/~adamodar>.

1 risk of public utilities is relatively low. The average beta for electric utilities
2 and gas distribution companies are 0.88 and 0.78, respectively. These figures
3 put electric and gas companies in the bottom twenty percent of all industries
4 and well below the *Value Line* average of 1.24. As such, the costs of equity
5 for the electric utility and gas distribution industries are among the lowest of
6 all industries in the U.S.

7 **Q. HOW CAN THE EXPECTED OR REQUIRED RATE OF RETURN ON**
8 **COMMON EQUITY CAPITAL BE DETERMINED?**

9
10 A. The costs of debt and preferred stock are normally based on historical or book
11 values and can be determined with a great degree of accuracy. The cost of
12 common equity capital, however, cannot be determined precisely and must
13 instead be estimated from market data and informed judgment. This return to
14 the stockholder should be commensurate with returns on investments in other
15 enterprises having comparable risks.

16 According to valuation principles, the present value of an asset equals
17 the discounted value of its expected future cash flows. Investors discount
18 these expected cash flows at their required rate of return that, as noted above,
19 reflects the time value of money and the perceived riskiness of the expected
20 future cash flows. As such, the cost of common equity is the rate at which
21 investors discount expected cash flows associated with common stock
22 ownership.

1 Models have been developed to ascertain the cost of common equity
2 capital for a firm. Each model, however, has been developed using restrictive
3 economic assumptions. Consequently, judgment is required in selecting
4 appropriate financial valuation models to estimate a firm's cost of common
5 equity capital, in determining the data inputs for these models, and in
6 interpreting the models' results. All of these decisions must take into
7 consideration the firm involved as well as current conditions in the economy
8 and the financial markets.

9 **Q. HOW DO YOU PLAN TO ESTIMATE THE COST OF EQUITY**
10 **CAPITAL FOR THE COMPANY?**

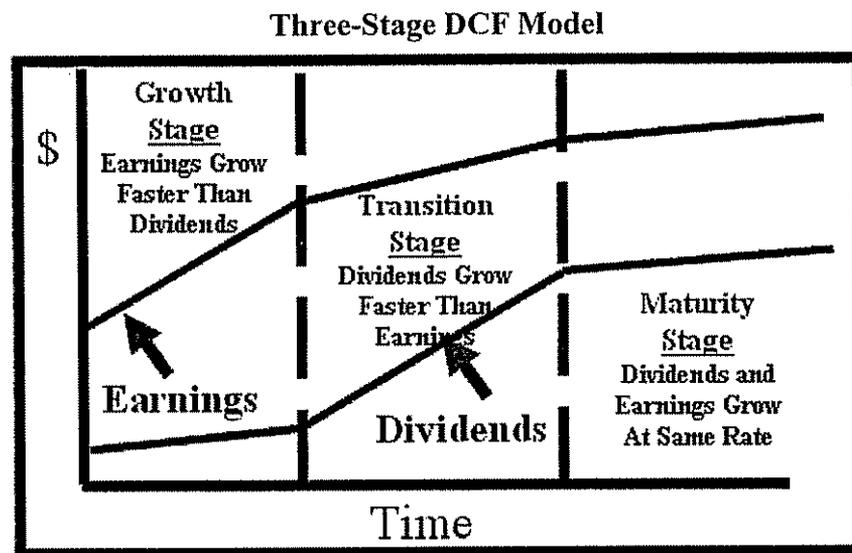
11 **A.** I rely primarily on the DCF model to estimate the cost of equity capital.
12 Given the investment valuation process and the relative stability of the utility
13 business, I believe that the DCF model provides the best measure of equity
14 cost rates for public utilities. It is my experience that this Commission has
15 traditionally relied on the DCF method. I have also performed a CAPM
16 study, but I give these results less weight because I believe that risk premium
17 studies, of which the CAPM is one form, provide a less reliable indication of
18 equity cost rates for public utilities.
19

20 **B. Discounted Cash Flow Analysis**

21 **Q. DESCRIBE THE THEORY BEHIND THE TRADITIONAL DCF**
22 **MODEL.**

23

1 company's dividend payout progresses initially through a growth stage, then
 2 proceeds through a transition stage, and finally assumes a steady-state stage.
 3 The dividend-payment stage of a firm depends on the profitability of its
 4 internal investments, which, in turn, is largely a function of the life cycle of
 5 the product or service. These stages are depicted in the graphic below labeled
 6 the Three-Stage DCF Model.⁷



8

9 1. Growth stage: Characterized by rapidly expanding sales, high profit
 10 margins, and abnormally high growth in earnings per share. Because of
 11 highly profitable expected investment opportunities, the payout ratio is low.
 12 Competitors are attracted by the unusually high earnings, leading to a decline
 13 in the growth rate.

⁷ This description comes from William F. Sharp, Gordon J. Alexander, and Jeffrey V. Bailey, *Investments* (Prentice-Hall, 1995), pp. 590-91.

1 where D_1 represents the expected dividend over the coming year and g is the
2 expected growth rate of dividends. This is known as the constant-growth
3 version of the DCF model. To use the constant-growth DCF model to
4 estimate a firm's cost of equity, one solves for k in the above expression to
5 obtain the following:

$$6 \quad k = \frac{D_1}{P} + g$$

7
8
9
10 **Q. IN YOUR OPINION, IS THE CONSTANT-GROWTH DCF MODEL**
11 **APPROPRIATE FOR PUBLIC UTILITIES?**

12
13 **A.** Yes. The economics of the public utility business indicate that the industry is
14 in the steady-state or constant-growth stage of a three-stage DCF. The
15 economics include the relative stability of the utility business, the maturity of
16 the demand for public utility services, and the regulated status of public
17 utilities (especially the fact that their returns on investment are effectively set
18 through the ratemaking process). The DCF valuation procedure for companies
19 in this stage is the constant-growth DCF. In the constant-growth version of
20 the DCF model, the current dividend payment and stock price are directly
21 observable. However, the primary problem and controversy in applying the
22 DCF model to estimate equity cost rates entails estimating investors' expected
23 dividend growth rate.

1 **Q. WHAT FACTORS SHOULD ONE CONSIDER WHEN APPLYING**
2 **THE DCF METHODOLOGY?**

3
4 A. One should be sensitive to several factors when using the DCF model to
5 estimate a firm's cost of equity capital. In general, one must recognize the
6 assumptions under which the DCF model was developed in estimating its
7 components (the dividend yield and expected growth rate). The dividend
8 yield can be measured precisely at any point in time, but tends to vary
9 somewhat over time. Estimation of expected growth is considerably more
10 difficult. One must consider recent firm performance, in conjunction with
11 current economic developments and other information available to investors,
12 to accurately estimate investors' expectations.

13 **Q. PLEASE DISCUSS EXHIBIT JRW-6.**

14 A. My DCF analysis is provided in Exhibit JRW-6. The DCF summary is on
15 page 1 of this Exhibit, and the supporting data and analysis for the dividend
16 yield and expected growth rate are provided on the following pages of the
17 Exhibit.

18 **Q. WHAT DIVIDEND YIELDS ARE YOU EMPLOYING IN YOUR DCF**
19 **ANALYSIS FOR THE PROXY GROUPS?**

20
21 A. The dividend yields on the common stock for the companies in the two proxy
22 groups are provided on page 2 of Exhibit JRW-6 for the six-month period
23 ending October 2008. For the DCF dividend yields for the groups, I am using

1 the average of the six month and October 2008 dividend yields. The table
2 below shows these dividend yields.

3

Proxy Group	6-Month Average Dividend Yield	October 2008 Dividend Yield	DCF Dividend Yield
Electric Proxy Group	4.4%	4.2%	4.3%
Gas Proxy Group	3.5%	3.8%	3.6%

4

5 **Q. PLEASE DISCUSS THE APPROPRIATE ADJUSTMENT TO THE**
6 **SPOT DIVIDEND YIELD.**

7

8 A. According to the traditional DCF model, the dividend yield term relates to the
9 dividend yield over the coming period. As indicated by Professor Myron
10 Gordon, who is commonly associated with the development of the DCF model
11 for popular use, this is obtained by: (1) multiplying the expected dividend
12 over the coming quarter by 4 and (2) dividing this dividend by the current
13 stock price to determine the appropriate dividend yield for a firm, that pays
14 dividends on a quarterly basis.⁸

15 In applying the DCF model, some analysts adjust the current dividend
16 for growth over the coming year as opposed to the coming quarter. This can
17 be complicated because firms tend to announce changes in dividends at
18 different times during the year. As such, the dividend yield computed based
19 on presumed growth over the coming quarter as opposed to the coming year

⁸ *Petition for Modification of Prescribed Rate of Return*, Federal Communications Commission, Docket No. 79-05, Direct Testimony of Myron J. Gordon and Lawrence I. Gould at 62 (April 1980).

1 can be quite different. Consequently, it is common for analysts to adjust the
2 dividend yield by some fraction of the long-term expected growth rate.

3
4 **Q. GIVEN THIS DISCUSSION, WHAT ADJUSTMENT FACTOR WILL**
5 **YOU USE FOR YOUR DIVIDEND YIELD?**

6
7 A. I will adjust the dividend yield by one-half (1/2) the expected growth so as to
8 reflect growth over the coming year.

9 **Q. PLEASE DISCUSS THE GROWTH RATE COMPONENT OF THE**
10 **DCF MODEL.**

11
12 A. There is much debate as to the proper methodology to employ in estimating
13 the growth component of the DCF model. By definition, this component is
14 investors' expectation of the long-term dividend growth rate. Presumably,
15 investors use some combination of historical and/or projected growth rates for
16 earnings and dividends per share and for internal or book value growth to
17 assess long-term potential.

18 **Q. WHAT GROWTH DATA HAVE YOU REVIEWED FOR THE PROXY**
19 **GROUPS?**

20
21 A. I have analyzed a number of measures of growth for companies in the proxy
22 groups. I have reviewed *Value Line's* historical and projected growth rate
23 estimates for earnings per share ("EPS"), dividends per share ("DPS"), and
24 book value per share ("BVPS"). In addition, I have utilized the average EPS

1 growth rate forecasts of Wall Street analysts as provided by Bloomberg and
2 Zacks. These services solicit five-year earnings growth rate projections from
3 securities analysts and compile and publish the means and medians of these
4 forecasts. Finally, I have also assessed prospective growth as measured by
5 prospective earnings retention rates and earned returns on common equity.

6 **Q. PLEASE DISCUSS HISTORICAL GROWTH IN EARNINGS AND**
7 **DIVIDENDS AS WELL AS INTERNAL GROWTH.**

8
9 A. Historical growth rates for EPS, DPS, and BVPS are readily available to
10 virtually all investors and presumably an important ingredient in forming
11 expectations concerning future growth. However, one must use historical
12 growth numbers as measures of investors' expectations with caution. In some
13 cases, past growth may not reflect future growth potential. Also, employing a
14 single growth rate number (for example, for five or ten years), is unlikely to
15 accurately measure investors' expectations due to the sensitivity of a single
16 growth rate figure to fluctuations in individual firm performance as well as
17 overall economic fluctuations (i.e., business cycles). However, one must
18 appraise the context in which the growth rate is being employed. According
19 to the conventional DCF model, the expected return on a security is equal to
20 the sum of the dividend yield and the expected long-term growth in dividends.
21 Therefore, to best estimate the cost of common equity capital using the
22 conventional DCF model, one must look to long-term growth rate
23 expectations.

1 Internally generated growth is a function of the percentage of earnings
2 retained within the firm (the earnings retention rate) and the rate of return
3 earned on those earnings (the return on equity). The internal growth rate is
4 computed as the retention rate times the return on equity. Internal growth is
5 significant in determining long-run earnings and therefore, dividends.
6 Investors recognize the importance of internally generated growth and pay
7 premiums for stocks of companies that retain earnings and earn high returns
8 on internal investments.

9
10 **Q. WHY ARE YOU NOT RELYING EXCLUSIVELY ON THE EPS**
11 **FORECASTS OF WALL STREET ANALYSTS IN ARRIVING AT A**
12 **DCF GROWTH RATE FOR THE PROXY GROUP?**

13
14
15 **A.** There are several issues with using the EPS growth rate forecasts of Wall
16 Street analysts as DCF growth rates. First, the appropriate growth rate in the
17 DCF model is the dividend growth rate, not the earnings growth rate.
18 Nonetheless, over the very long-term, dividend and earnings will have to grow
19 at a similar growth rate. Therefore, in my opinion, consideration must be
20 given to other indicators of growth, including prospective dividend growth,
21 internal growth, as well as projected earnings growth. Second, and most
22 significantly, it is well-known that the EPS growth rate forecasts of Wall
23 Street securities analysts are overly optimistic and upwardly biased. Hence,
24 using these growth rates as a DCF growth rate will provide an overstated
25 equity cost rate. This issue is discussed at length in the rebuttal section of this

1 testimony.

2 **Q. PLEASE DISCUSS THE HISTORICAL GROWTH OF THE**
3 **COMPANIES IN THE GROUPS AS PROVIDED IN THE *VALUE***
4 ***LINE INVESTMENT SURVEY*.**

5
6 A. Historic growth rates for the companies in the groups, as published in the
7 *Value Line Investment Survey*, are provided on page 3 of Exhibit JRW-6. Due
8 to the presence of outliers among the historic growth rate figures, both the
9 mean and medians are used in the analysis.⁹ As shown in Panel A, the
10 historical growth measures in EPS, DPS, and BVPS for the Electric Proxy
11 Group, as measured by the means and medians, range from -0.8% to 4.0%,
12 with an average of 1.7%. The historical growth measures in EPS, DPS, and
13 BVPS are shown in Panel B for the Gas Proxy Group. The range of the
14 means and medians is 1.8% to 7.3%, with an average of 4.5%.

15
16 **Q. PLEASE SUMMARIZE *VALUE LINE'S* PROJECTED GROWTH**
17 **RATES FOR THE COMPANIES IN THE PROXY GROUPS.**

18
19 A. *Value Line's* projections of EPS, DPS, and BVPS growth for the companies in
20 the proxy groups are shown on page 4 of Exhibit JRW-6. As above, due to
21 the presence of outliers, both the mean and medians are used in the analysis.
22 For the Electric Proxy Group, the central tendency measures range from 4.0%

⁹ Outliers are observations that are much larger or smaller than the majority of the observations that are being evaluated.

1 to 7.5%, with an average of 5.2%. The central tendency measures for the Gas
2 Proxy Group range from 3.6% to 5.7%, with an average of 4.5%.

3 Also provided on page 4 of Exhibit JRW-6 is prospective internal
4 growth for the proxy groups as measured by *Value Line*'s average projected
5 retention rate and return on shareholders' equity. As noted above, internal
6 growth is significant in a primary driver of long-run earnings growth. For the
7 Electric Proxy Group, the average prospective internal growth rate is 4.0%.
8 The average internal growth rate for the Gas Proxy Group is 5.7%.

9 **Q. PLEASE ASSESS GROWTH FOR THE PROXY GROUPS AS**
10 **MEASURED BY ANALYSTS' FORECASTS OF EXPECTED 5-YEAR**
11 **EPS GROWTH.**

12
13 A. Zacks and Bloomberg collect, summarize, and publish Wall Street analysts'
14 five-year EPS growth rate forecasts for the companies in the proxy groups.
15 These forecasts are provided for the companies in the proxy group on page 5
16 of Exhibit JRW-6. The median of the analysts' projected EPS growth rates
17 for the Electric Proxy Group is 6.25% and for the Gas Proxy Group is
18 5.53%.¹⁰

19
20 **Q. PLEASE SUMMARIZE YOUR ANALYSIS OF THE HISTORICAL**
21 **AND PROSPECTIVE GROWTH OF THE PROXY GROUPS.**
22

¹⁰ Since there is considerable overlap in analyst coverage between the three services, and not all of the companies have forecasts from the different services, I have averaged the expected five-year EPS growth rates from the three services for each company to arrive at an expected EPS growth rate by company.

1 A. The table below shows the summary DCF growth rate indicators for the proxy
2 groups.

3 **DCF Growth Rate Indicators**

Growth Rate Indicator	Electric Proxy Group	Gas Proxy Group
Historic <i>Value Line</i> Growth in EPS, DPS, and BVPS	1.7%	4.5%
Projected <i>Value Line</i> Growth in EPS, DPS, and BVPS	5.2%	4.5%
Internal Growth ROE * Retention Rate	4.0%	5.7%
Projected EPS Growth from Bloomberg and Zacks	6.25%	5.53%

4
5 The average of the growth rate indicators for the Electric Proxy Group is
6 4.3%. Giving greater weight to the projected growth rate indicators and to
7 prospective internal growth, an expected DCF growth rate in the 5.0%-6.0%
8 range is reasonable for the group. I will use the midpoint of this range, 5.5%,
9 as the DCF growth rate for the Electric Proxy Group. For the Gas Proxy
10 Group, the average of the growth rate indicators is 5.07%. Giving greater
11 weight to the projected growth rate indicators, an expected DCF growth rate
12 in the 5.5% range is also reasonable for the Gas Proxy Group.

13 **Q. BASED ON THE ABOVE ANALYSIS, WHAT ARE YOUR**
14 **INDICATED COMMON EQUITY COST RATES FROM THE DCF**
15 **MODEL FOR THE TWO GROUPS?**

16
17 A. My DCF-derived equity cost rate for the groups is:

1
2
3
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5

$$\text{DCF Equity Cost Rate (k)} = \frac{D}{P} + g$$

DCF Equity Cost Rates

	Electric Proxy Group	Gas Proxy Group
Dividend Yield	4.3%	3.6%
1 + (½ Growth Rate Adjustment)	1.0275	1.0275
DCF Growth Rate	5.50%	5.50%
Equity Cost Rate	9.9%	9.2%

6 These results are summarized on page 1 of Exhibit JRW-6.

7 **C. Capital Asset Pricing Model Results**

8 **Q. PLEASE DISCUSS THE CAPITAL ASSET PRICING MODEL**
9 **(“CAPM”).**

10
11 A. The CAPM is a risk premium approach to gauging a firm’s cost of equity
12 capital. According to the risk premium approach, the cost of equity is the sum
13 of the interest rate on a risk-free bond (R_f) and a risk premium (RP), as in the
14 following:

15
$$k = R_f + RP$$

16

17 The yield on long-term Treasury securities is normally used as R_f . Risk
18 premiums are measured in different ways. The CAPM is a theory of the risk
19 and expected returns of common stocks. In the CAPM, two types of risk are

1 associated with a stock: firm-specific risk or unsystematic risk, and market or
2 systematic risk, which is measured by a firm's beta. The only risk that
3 investors receive a return for bearing is systematic risk.

4 According to the CAPM, the expected return on a company's stock,
5 which is also the equity cost rate (K), is equal to:

$$6 \quad K = (R_f) + \beta * [E(R_m) - (R_f)]$$

7 Where:

- 8 • K represents the estimated rate of return on the stock;
- 9 • $E(R_m)$ represents the expected return on the overall stock market.
10 Frequently, the 'market' refers to the S&P 500;
- 11 • (R_f) represents the risk-free rate of interest;
- 12 • $[E(R_m) - (R_f)]$ represents the expected equity or market risk premium—
13 the excess return that an investor expects to receive above the risk-free rate for
14 investing in risky stocks; and
- 15 • *Beta*—(β) is a measure of the systematic risk of an asset.

16 To estimate the required return or cost of equity using the CAPM
17 requires three inputs: the risk-free rate of interest (R_f), the beta (β), and the
18 expected equity or market risk premium $[E(R_m) - (R_f)]$. R_f is the easiest of the
19 inputs to measure – it is the yield on long-term Treasury bonds. β , the
20 measure of systematic risk, is a little more difficult to measure because there
21 are different opinions about what adjustments, if any, should be made to
22 historical betas due to their tendency to regress to 1.0 over time. And finally,
23 an even more difficult input to measure is the expected equity or market risk
24 premium $(E(R_m) - (R_f))$. I will discuss each of these inputs below.
25

26 **Q. PLEASE DISCUSS EXHIBIT JRW-7.**

1 A. Exhibit JRW-7 provides the summary results for my CAPM study. Page 1
2 shows the results, and pages 2-5 contain the supporting data.

3 **Q. PLEASE DISCUSS THE RISK-FREE INTEREST RATE.**

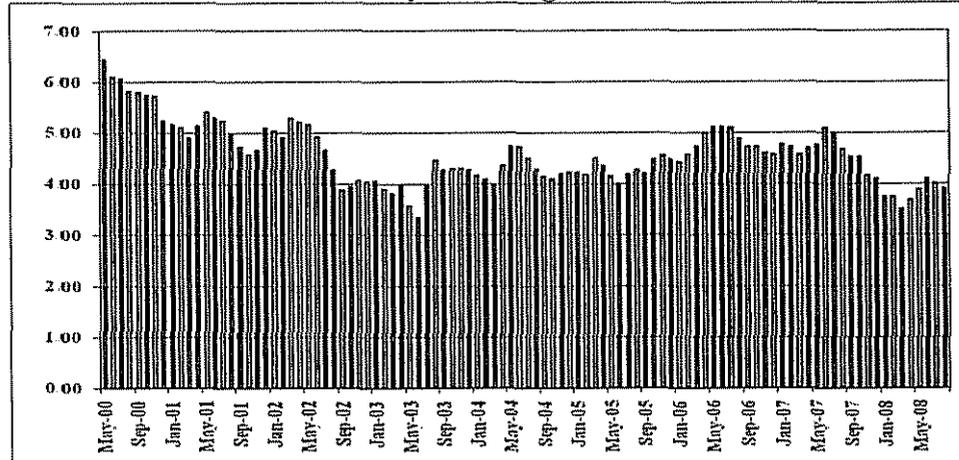
4 A. The yield on long-term U.S. Treasury bonds has usually been viewed as the
5 risk-free rate of interest in the CAPM. The yield on long-term U.S. Treasury
6 bonds, in turn, has been considered to be the yield on U.S. Treasury bonds
7 with 30-year maturities. However, when the Treasury's issuance of 30-year
8 bonds was interrupted for a period of time in recent years, the yield on 10-year
9 U.S. Treasury bonds replaced the yield on 30-year U.S. Treasury bonds as the
10 benchmark long-term Treasury rate. The 10-year U.S. Treasury yields over
11 the past five years are shown in the chart below. These rates hit a 60-year low
12 in the summer of 2003 at 3.33%. They increased with the rebounding
13 economy and fluctuated in the 4.0-4.50 percent range in recent years until
14 advancing to 5.0% in early 2006 in response to a strong economy and
15 increases in energy, commodity, and consumer prices. In late 2006, long-term
16 interest rates retreated to the 4.5 percent area as commodity and energy prices
17 declined and inflationary pressures subsided. These rates rebounded to the
18 5.0% level in the first half of 2007. However, ten-year Treasury yields have
19 again fall below 4.0 percent due to the housing and sub-prime mortgage crises
20 and its affect on the economy and financial markets.

21

22

1
2

Ten-Year U.S. Treasury Yields January 2000-August 2008



<http://research.stlouisfed.org/fred2/series/GS10?cid=115>

3
4

5
6

Q. WHAT RISK-FREE INTEREST RATE ARE YOU USING IN YOUR CAPM?

7
8

A. The U.S. Treasury began to issue the 30-year bond in the early 2000s as the U.S. budget deficit increased. As such, the market has once again focused on its yield as the benchmark for long-term capital costs in the U.S. As noted above, the yields on the 10- and 30- year U.S. Treasuries decreased to below 5.0% in 2007 and have remained at these lower levels. In 2008 Treasury yields have been pushed even lower as a result of the mortgage and sub-prime market credit crisis, the turmoil in the financial sector, the prospect of an economic recession, and the government bailout of financial institutions. As of September 22, 2008, as shown in the table below, the rates on 10- and 30- U.S. Treasury Bonds were 3.67% and 4.16%, respectively. However, these yields have been highly volatile over the past two months. Given this recent range and volatility,

18

1 along with the prospect of higher rates, I will use 4.5% as the risk-free rate, or
2 R_f , in my CAPM.

3 **U.S. Treasury Yields**
4 **October 2, 2008**

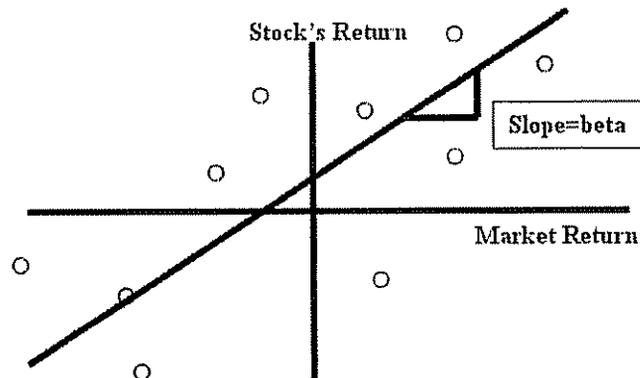
U.S. Treasuries			
	COUPON	MATURITY DATE	CURRENT PRICE/YIELD
3-MONTH	0.000	01/02/2009	0.67 / .68
6-MONTH	0.000	04/02/2009	1.2 / 1.22
12-MONTH	0.000	09/24/2009	1.42 / 1.46
2-YEAR	2.000	09/30/2010	101-12+ / 1.66
3-YEAR	4.500	09/30/2011	107-10+ / 1.97
5-YEAR	3.125	09/30/2013	101-25+ / 2.73
10-YEAR	4.000	08/15/2018	102-22+ / 3.67
30-YEAR	4.500	05/15/2038	105-25+ / 4.16

5 Source: www.bloomberg.com
6

7 **Q. WHAT BETAS ARE YOU EMPLOYING IN YOUR CAPM?**

8 A. Beta (β) is a measure of the systematic risk of a stock. The market, usually
9 taken to be the S&P 500, has a beta of 1.0. The beta of a stock with the same
10 price movement as the market also has a beta of 1.0. A stock whose price
11 movement is greater than that of the market, such as a technology stock, is
12 riskier than the market and has a beta greater than 1.0. A stock with below
13 average price movement, such as that of a regulated public utility, is less risky
14 than the market and has a beta less than 1.0. Estimating a stock's beta involves
15 running a linear regression of a stock's return on the market return as in the
16 following:

Calculation of Beta



1
2 The slope of the regression line is the stock's β . A steeper line
3 indicates the stock is more sensitive to the return on the overall market. This
4 means that the stock has a higher β and greater than average market risk. A
5 less steep line indicates a lower β and less market risk.

6 Numerous online investment information services, such as Yahoo! and
7 Reuters, provide estimates of stock betas. Usually these services report
8 different betas for the same stock. The differences are usually due to: (1) the
9 time period over which the β is measured and (2) any adjustments that are
10 made to reflect the fact that betas tend to regress to 1.0 over time. In
11 estimating an equity cost rate for the proxy group, I am using the betas for the
12 companies as provided in the *Value Line Investment Survey*. As shown on
13 page 2 of Exhibit JRW-7, the average beta for the companies in both the
14 Electric and Gas Proxy Groups is 0.82.

15 **Q. PLEASE DISCUSS THE OPPOSING VIEWS REGARDING THE**
16 **EQUITY RISK PREMIUM.**

17

1 A. The equity or market risk premium - $(E(R_m) - R_f)$ - is equal to the expected
2 return on the stock market (e.g., the expected return on the S&P 500 $(E(R_m))$)
3 minus the risk-free rate of interest (R_f). The equity premium is the difference in
4 the expected total return between investing in equities and investing in “safe”
5 fixed-income assets, such as long-term government bonds. However, while the
6 equity risk premium is easy to define conceptually, it is difficult to measure
7 because it requires an estimate of the expected return on the market.

8 **Q. PLEASE DISCUSS THE ALTERNATIVE APPROACHES TO**
9 **ESTIMATING THE EQUITY RISK PREMIUM.**

10 A. The table below highlights the primary approaches to, and issues in,
11 estimating the expected equity risk premium. The traditional way to measure
12 the equity risk premium was to use the difference between historical average
13 stock and bond returns. In this case, historical stock and bond returns, also
14 called ex post returns, were used as the measures of the market’s expected
15 return (known as the ex ante or forward-looking expected return). This type
16 of historical evaluation of stock and bond returns is often called the “Ibbotson
17 approach” after Professor Roger Ibbotson who popularized this method of
18 using historical financial market returns as measures of expected returns.
19 Most historical assessments of the equity risk premium suggest an equity risk
20 premium of 5-7 percent above the rate on long-term U.S. Treasury bonds.
21 However, this can be a problem because: (1) ex post returns are not the same
22 as ex ante expectations, (2) market risk premiums can change over time;
23

1 increasing when investors become more risk-averse and decreasing when
 2 investors become less risk-averse, and (3) market conditions can change such
 3 that ex post historical returns are poor estimates of ex ante expectations.

4 Risk Premium Approaches

	Historical Ex Post Excess Returns	Surveys	Ex Ante Models and Market Data
Means of Assessing the Equity-Bond Risk Premium	Historical average is a popular proxy for the ex ante premium – but likely to be misleading	Investor and expert surveys can provide direct estimates of prevailing expected returns/premiums	Current financial market prices (simple valuation ratios or DCF-based measures) can give most objective estimates of feasible ex ante equity-bond risk premium
Problems/Debated Issues	Time variation in required returns and systematic selection and other biases have boosted valuations over time, and have exaggerated realized excess equity returns compared with ex ante expected premiums	Limited survey histories and questions of survey representativeness. Surveys may tell more about hoped-for expected returns than about objective required premiums due to irrational biases such as extrapolation.	Assumptions needed for DCF inputs, notably the trend earnings growth rate, make even these models' outputs subjective. The range of views on the growth rate, as well as the debate on the relevant stock and bond yields, leads to a range of premium estimates.

5
 6 Source: Antti Ilmanen, "Expected Returns on Stocks and Bonds," *Journal of Portfolio Management*, (Winter 2003).
 7
 8

9 The use of historical returns as market expectations has been criticized
 10 in numerous academic studies.¹¹ The general theme of these studies is that the
 11 large equity risk premium discovered in historical stock and bond returns
 12 cannot be justified by the fundamental data. These studies, which fall under
 13 the category "Ex Ante Models and Market Data," compute ex ante expected
 14 returns using market data to arrive at an expected equity risk premium. These
 15 studies have also been called "Puzzle Research" after the famous study by
 16 Mehra and Prescott in which the authors first questioned the magnitude of
 17 historical equity risk premiums relative to fundamentals.¹²

¹¹ The problems with using ex post historical returns as measures of ex ante expectations will be discussed at length later in my testimony.

¹² R. Mehra and Edward Prescott, "The Equity Premium: A Puzzle," *Journal of Monetary Economics* (1985).

1 **Q. PLEASE SUMMARIZE SOME OF THE ACADEMIC STUDIES THAT**
2 **DEVELOP EX ANTE EQUITY RISK PREMIUMS.**

3
4 A. Two of the most prominent studies of ex ante expected equity risk premiums
5 were by Eugene Fama and Ken French (2002) and James Claus and Jacob
6 Thomas (2001). The primary debate in these studies revolves around two
7 related issues: (1) the size of expected equity risk premium, which is the
8 return equity investors require above the yield on bonds and (2) the fact that
9 estimates of the ex ante expected equity risk premium using fundamental firm
10 data (earnings and dividends) are much lower than estimates using historical
11 stock and bond return data.

12 Fama and French (2002), two of the most preeminent scholars in
13 finance, use dividend and earnings growth models to estimate expected stock
14 returns and ex ante expected equity risk premiums.¹³ They compare these
15 results to actual stock returns over the period 1951-2000. Fama and French
16 estimate that the expected equity risk premium from DCF models using
17 dividend and earnings growth to be between 2.55% and 4.32%. These figures
18 are much lower than the ex post historical equity risk premium produced from
19 the average stock and bond return over the same period, which is 7.40%.
20 Fama and French conclude that the ex ante equity risk premium estimates
21 using DCF models and fundamental data are superior to those using ex post
22 historical stock returns for three reasons: (1) the estimates are more precise (a
23 lower standard error); (2) the Sharpe ratio, which is measured as the

¹³ Eugene F. Fama and Kenneth R. French, "The Equity Premium," *The Journal of Finance*, (April 2002).

1 [(expected stock return – risk-free rate)/standard deviation], is constant over
2 time for the DCF models but varies considerably over time and more than
3 doubles for the average stock-bond return model; and (3) valuation theory
4 specifies relationships between the market-to-book ratio, return on investment,
5 and cost of equity capital that favor estimates from fundamentals. They also
6 conclude that the high average stock returns over the past 50 years were the
7 result of low expected returns and that the average equity risk premium has
8 been in the 3-4 percent range.

9 The study by Claus and Thomas of Columbia University provides
10 direct support for the findings of Fama and French.¹⁴ These authors compute
11 ex ante expected equity risk premiums over the 1985-1998 period by: (1)
12 computing the discount rate that equates market values with the present value
13 of expected future cash flows and (2) then subtracting the risk-free interest
14 rate. The expected cash flows are developed using analysts' earnings
15 forecasts. The authors conclude that over this period, the ex ante expected
16 equity risk premium is in the range of 3.0%. Claus and Thomas note that,
17 over this period, ex post historical stock returns overstate the ex ante expected
18 equity risk premium because, as the expected equity risk premium has
19 declined, stock prices have risen. In other words, from a valuation
20 perspective, the present value of expected future returns increase when the
21 required rate of return decreases. The higher stock prices have produced stock

¹⁴ James Claus and Jacob Thomas, "Equity Risk Premia as Low as Three Percent? Empirical Evidence from Analysts' Earnings Forecasts for Domestic and International Stock Market," *Journal of Finance*. (October 2001).

1 returns that have exceeded investors' expectations, and therefore, ex post
2 historical equity risk premium estimates are biased upwards as measures of ex
3 ante expected equity risk premiums.

4 **Q. PLEASE PROVIDE A SUMMARY OF THE EQUITY RISK PREMIUM**
5 **STUDIES.**

6
7 A. Derrig and Orr (2003), Fernandez (2007), and Song (2007) have completed
8 the most comprehensive reviews to date of the research on the equity risk
9 premium.¹⁵ Derrig and Orr's study evaluated the various approaches to
10 estimating equity risk premiums as well as the issues with the alternative
11 approaches and summarized the findings of the published research on the
12 equity risk premium. Fernandez examined four alternative measures of the
13 equity risk premium – historical, expected, required, and implied. He also
14 reviewed the major studies of the equity risk premium and presented the
15 summary equity risk premium results. Song provides an annotated
16 bibliography and highlights the alternative approaches to estimating the equity
17 risk summary.

18 Page 3 of Exhibit JRW-7 provides a summary of the results of the
19 primary risk premium studies reviewed by Derrig and Orr, Fernandez, and
20 Song. In developing page 3 of Exhibit JRW-7, I have categorized the studies
21 as discussed on page 41 of my testimony. I have also included the results of

¹⁵ Richard Derrig and Elisha Orr, "Equity Risk Premium: Expectations Great and Small," Working Paper (version 3.0), Automobile Insurers Bureau of Massachusetts, (August 28, 2003), Pablo Fernandez, "Equity Premium: Historical, Expected, Required, and Implied," IESE Business School Working Paper, (2007), and Zhiyi Song, "The Equity Risk Premium: An Annotated Bibliography," CFA Institute, (2007).

1 the “Building Blocks” approach to estimating the equity risk premium,
2 including a study I performed, which is presented below. The Building Blocks
3 approach is a hybrid approach employing elements of both historic and ex
4 ante models.

5 **Q. PLEASE DISCUSS YOUR DEVELOPMENT OF AN EQUITY RISK**
6 **PREMIUM COMPUTED USING THE BUILDING BLOCKS**
7 **METHODOLOGY.**

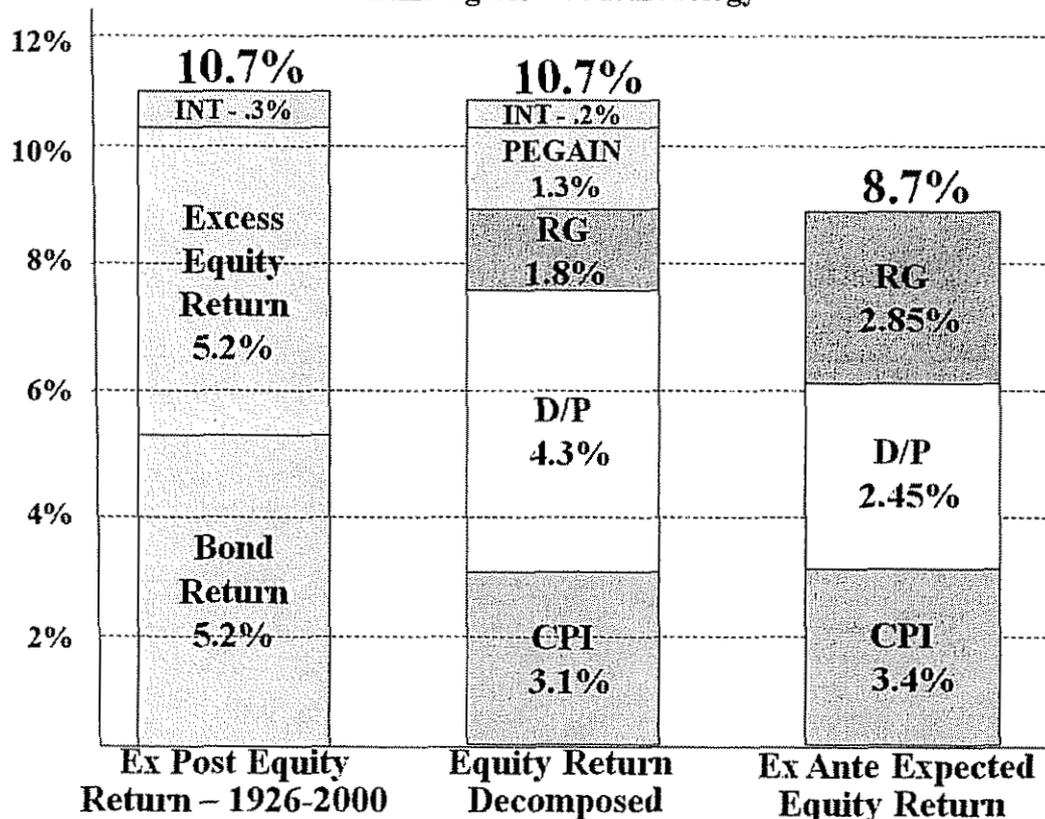
8
9 A. Ibbotson and Chen (2003) evaluate the ex post historical mean stock and bond
10 returns in what is called the Building Blocks approach.¹⁶ They use 75 years of
11 data and relate the compounded historical returns to the different fundamental
12 variables employed by different researchers in building ex ante expected
13 equity risk premiums. Among the variables included were inflation, real EPS
14 and DPS growth, ROE and book value growth, and price-earnings (“P/E”)
15 ratios. By relating the fundamental factors to the ex post historical returns, the
16 methodology bridges the gap between the ex post and ex ante equity risk
17 premiums. Ilmanen (2003) illustrates this approach using the geometric
18 returns and five fundamental variables – inflation (“CPI”), dividend yield
19 (“D/P”), real earnings growth (“RG”), repricing gains (“PEGAIN”) and return
20 interaction/reinvestment (“INT”).¹⁷ This is shown in the graph below. The
21 first column breaks the 1926-2000 geometric mean stock return of 10.7% into

¹⁶ Roger Ibbotson and Peng Chen, “Long Run Returns: Participating in the Real Economy,” *Financial Analysts Journal*, (January 2003).

¹⁷ Antti Ilmanen, Expected Returns on Stocks and Bonds,” *Journal of Portfolio Management*, (Winter 2003), p. 11.

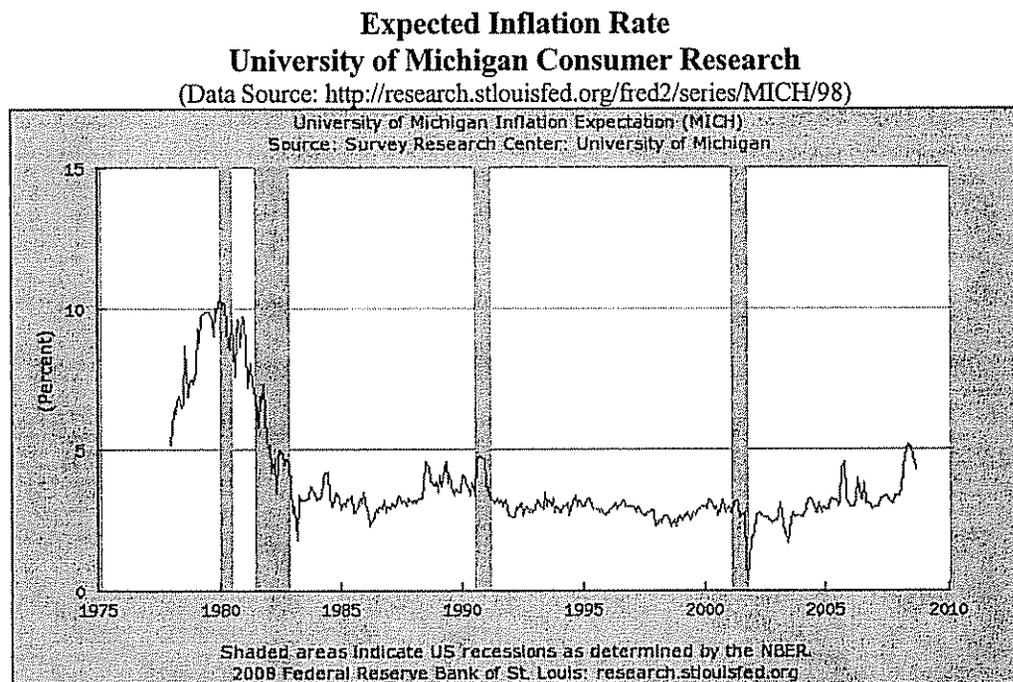
1 the different return components demanded by investors: the historical U.S.
 2 Treasury bond return (5.2%), the excess equity return (5.2%), and a small
 3 interaction term (0.3%). This 10.7% annual stock return over the 1926-2000
 4 period can then be broken down into the following fundamental elements:
 5 inflation (3.1%), dividend yield (4.3%), real earnings growth (1.8%), repricing
 6 gains (1.3%) associated with higher P/E ratios, and a small interaction term
 7 (0.2%).

8 **Decomposing Equity Market Returns**
 9 **The Building Blocks Methodology**



10
 11
 12 **Q. HOW ARE YOU USING THIS METHODOLOGY TO DERIVE AN EX**
 13 **ANTE EXPECTED EQUITY RISK PREMIUM?**

1
 2 A. The third column in the graph above shows current inputs to estimate an ex
 3 ante expected market return. These inputs include the following:
 4 CPI – To assess expected inflation, I have employed expectations of the short-
 5 term and long-term inflation rate. The graph below shows the expected
 6 annual inflation rate according to consumers, as measured by the CPI, over the
 7 coming year. This survey is published monthly by the University of Michigan
 8 Survey Research Center. In the most recent report, the expected one-year
 9 inflation rate was 4.3%.



13
 14
 15 Longer term inflation forecasts are available in the Federal Reserve
 16 Bank of Philadelphia's publication entitled *Survey of Professional*
 17 *Forecasters*.¹⁸ This survey of professional economists has been published for

¹⁸Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*, (February 12, 2008). The *Survey of*

1 almost 50 years. While this survey is published quarterly, only the first
2 quarter survey includes long-term forecasts of gross domestic product
3 (“GDP”) growth, inflation, and market returns. In the first quarter 2008
4 survey, published on February 12, 2008, the median long-term (10-year)
5 expected inflation rate as measured by the CPI was 2.5% (see page 4 of
6 Exhibit JRW-7).

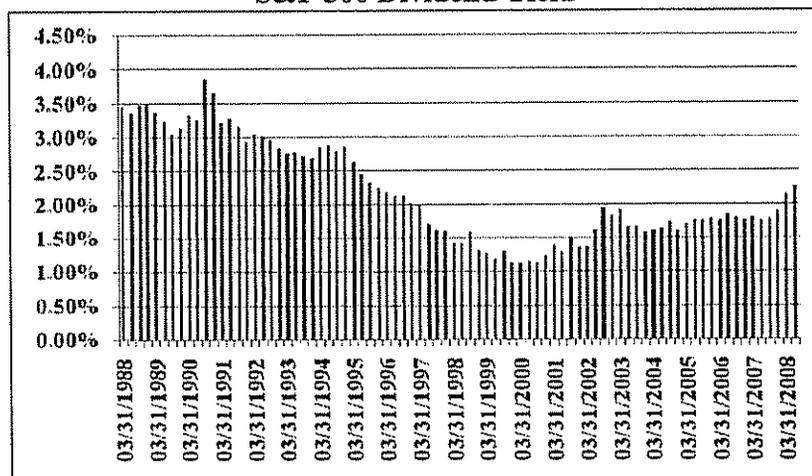
7 Given these results, I will use the average of the surveys of the
8 University of Michigan and Federal Reserve Bank of Philadelphia (4.3% and
9 2.5%), or 3.4%.

10 D/P – As shown in the graph below, the dividend yield on the S&P 500 has
11 decreased gradually over the past decade. Today, it is far below its average of
12 4.3% over the 1926-2000 time period. Whereas the S&P dividend yield
13 bottomed out at less than 1.4% in 2000, it is currently at 2.45% which I use in
14 the ex ante risk premium analysis.

Professional Forecasters was formerly conducted by the American Statistical Association (“ASA”) and the National Bureau of Economic Research (“NBER”) and was known as the ASA/NBER survey. The survey, which began in 1968, is conducted each quarter. The Federal Reserve Bank of Philadelphia, in cooperation with the NBER, assumed responsibility for the survey in June 1990.

1

S&P 500 Dividend Yield



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RG – To measure expected real growth in earnings, I use: (1) the historical real earnings growth rate for the S&P 500 and (2) expected real GDP growth. The S&P 500 was created in 1960. It includes 500 companies which come from ten different sectors of the economy. Over the 1960-2007 period, nominal growth in EPS for the S&P 500 was 7.36%. On page 5 of Exhibit JRW-7, real EPS growth is computed using the CPI as a measure of inflation. As indicated by Ibbotson and Chen, real earnings growth over the 1926-2000 period was 1.8%. The real growth figure over 1960-2007 period for the S&P 500 is 3.0 %.

The second input for expected real earnings growth is expected real GDP growth. The rationale is that over the long-term, corporate profits have averaged a relatively consistent 5.50% of U.S. GDP.¹⁹ Real GDP growth, according to McKinsey, has averaged 3.5% over the past 80 years. Expected

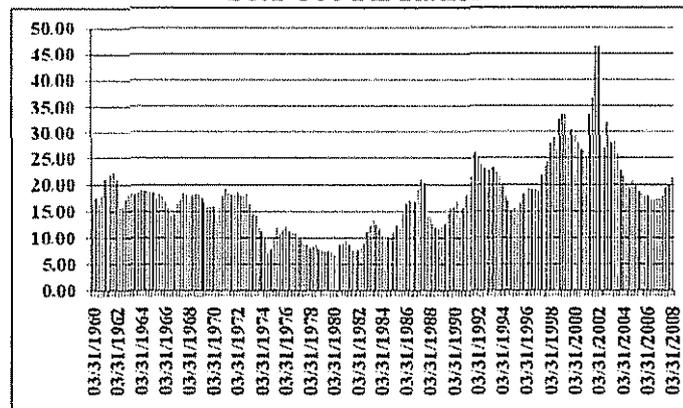
¹⁹Marc. H. Goedhart, et al, "The Real Cost of Equity," *McKinsey on Finance* (Autumn 2002), p.14.

1 GDP growth, according to the Federal Reserve Bank of Philadelphia's *Survey*
2 *of Professional Forecasters*, is 2.75% (see page 4 of Exhibit JRW-7).

3 Given these results, I will use the average of the historical S&P EPS
4 real growth and the projected real GDP growth (as reported by the Federal
5 Reserve Bank of Philadelphia Survey) -- 3.0% and 2.75% -- or 2.85%, for
6 real earnings growth.

7 PEGAIN – PEGAIN is the repricing gain associated with an increase in the
8 P/E ratio. It accounted for 1.3% of the 10.7% annual stock return in the
9 1926-2000 period. In estimating an ex ante expected stock market return, one
10 issue is whether investors expect P/E ratios to increase from their current
11 levels. The graph below shows the P/E ratios for the S&P 500 over the past
12 25 years. The run-up and eventual peak in P/Es is most notable in the chart.
13 The relatively low P/E ratios (in the range of 10) over two decades ago are
14 also quite notable. As of September 30, 2008, the P/E for the S&P 500 was
15 22.5.²⁰

16 **S&P 500 PE Ratios**



17
²⁰ Source: www.standardandpoors.com.

1 Given the current economic and capital markets environment, I do not
2 believe that investors expect even higher P/E ratios. Therefore, a PEGAIN
3 would not be appropriate in estimating an ex ante expected stock market
4 return. There are two primary reasons for this. First, the average historical
5 S&P 500 P/E ratio is 15.74 – thus the current P/E exceeds this figure. Second,
6 as previously noted, interest rates are at a cyclical low not seen in almost 50
7 years. This is a primary reason for the high current P/Es. Given the current
8 market environment with relatively high P/E ratios and low relative interest
9 rates, investors are not likely to expect to get stock market gains from lower
10 interest rates and higher P/E ratios.

11
12 **Q. GIVEN THIS DISCUSSION, WHAT IS YOUR EX ANTE EXPECTED**
13 **MARKET RETURN AND EQUITY RISK PREMIUM USING THE**
14 **“BUILDING BLOCKS METHODOLOGY”?**

15
16 A. My expected market return is represented by the last column on the right in
17 the graph entitled “Decomposing Equity Market Returns: The Building
18 Blocks Methodology” set forth on page 46 of my testimony. As shown, my
19 expected market return of 8.70% is composed of 3.40% expected inflation,
20 2.45% dividend yield, and 2.85% real earnings growth rate.

21 **Q. GIVEN THAT THE HISTORICAL COMPOUNDED ANNUAL**
22 **MARKET RETURN IS IN EXCESS OF 10%, WHY DO YOU BELIEVE**
23 **THAT YOUR EXPECTED MARKET RETURN OF 8.70% IS**
24 **REASONABLE?**

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A. As discussed above, in the development of the expected market return, stock prices are relatively high at the present time in relation to earnings and dividends, and interest rates are relatively low. Hence, it is unlikely that investors are going to experience high stock market returns due to higher P/E ratios and/or lower interest rates. In addition, as shown in the decomposition of equity market returns, whereas the dividend portion of the return was historically 4.3%, the current dividend yield is only 2.45%. Due to these reasons, lower market returns are expected for the future.

Q. IS YOUR EXPECTED MARKET RETURN OF 8.70% CONSISTENT WITH THE FORECASTS OF MARKET PROFESSIONALS?

A. Yes. In the first quarter 2008 *Survey of Financial Forecasters*, published on February 12, 2008 by the Federal Reserve Bank of Philadelphia, the mean long-term expected return on the S&P 500 was 6.8% (see page 4 of Exhibit JRW-7).

Q. IS YOUR EXPECTED MARKET RETURN CONSISTENT WITH THE EXPECTED MARKET RETURNS OF CORPORATE CHIEF FINANCIAL OFFICERS (CFOs)?

A. Yes. John Graham and Campbell Harvey of Duke University conduct a quarterly survey of corporate CFOs. The survey is a joint project of Duke

1 University and *CFO Magazine*. In the third quarter 2008 survey, the mean
2 expected return on the S&P 500 over the next ten years was 7.79%.²¹

3 **Q. GIVEN THIS EXPECTED MARKET RETURN, WHAT IS YOUR EX**
4 **ANTE EQUITY RISK PREMIUM USING THE BUILDING BLOCKS**
5 **METHODOLOGY?**

6
7 A. As shown on page 38, the current 30-year U.S. Treasury yield is 4.16%. My
8 ex ante equity risk premium is simply the expected market return from the
9 Building Blocks methodology minus this risk-free rate:

10
11 Ex Ante Equity Risk Premium = 8.70% - 4.16% = 4.54%

12
13 **Q. GIVEN THIS DISCUSSION, HOW ARE YOU MEASURING AN**
14 **EXPECTED EQUITY RISK PREMIUM IN THIS PROCEEDING?**

15
16 A. As discussed above, page 3 of Exhibit JRW-7 provides a summary of the
17 results of the equity risk premium studies that I have reviewed. These include
18 the results of: (1) the various studies of the historical risk premium, (2) ex ante
19 equity risk premium studies, (3) equity risk premium surveys of CFOs,
20 Financial Forecasters, and academics, and (4) the Building Block approaches
21 to the equity risk premium. There are results reported for over thirty studies,
22 and the average equity risk premium is 4.56%, which I will use as the equity
23 risk premium in my CAPM study.

²¹ The survey results are available at www.cfosurvey.org.

1 **Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH**
2 **THE EQUITY RISK PREMIUMS OF LEADING INVESTMENT**
3 **FIRMS?**

4
5 A. Yes. One of the first studies in this area was by Stephen Einhorn, one of Wall
6 Street's leading investment strategists.²² His study showed that the market or
7 equity risk premium had declined to the 2.0 - 3.0 percent range by the early
8 1990s. Among the evidence he provided in support of a lower equity risk
9 premium is the inverse relationship between real interest rates (observed
10 interest rates minus inflation) and stock prices. He noted that the decline in
11 the market risk premium has led to a significant change in the relationship
12 between interest rates and stock prices. One implication of this development
13 was that stock prices had increased higher than would be suggested by the
14 historical relationship between valuation levels and interest rates.

15 The equity risk premiums of some of the other leading investment
16 firms today support the result of the academic studies. An article in *The*
17 *Economist* indicated that some other firms like J.P. Morgan are estimating an
18 equity risk premium for an average risk stock in the 2.0 - 3.0 percent range
19 above the interest rate on U.S. Treasury Bonds.²³

20 **Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH**
21 **THE EQUITY RISK PREMIUMS USED BY CFOS?**

²² Steven G. Einhorn, "The Perplexing Issue of Valuation: Will the Real Value Please Stand Up?" *Financial Analysts Journal* (July-August 1990), pp. 11-16.

²³ For example, see "Welcome to Bull Country," *The Economist* (July 18, 1998), pp. 21-3, and "Choosing the Right Mixture," *The Economist* (February 27, 1999), pp. 71-2.

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A. Yes. In the previously referenced third quarter 2008 CFO survey conducted by *CFO Magazine* and Duke University, the expected 10-year equity risk premium was 3.99%.

Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH THE EX ANTE EQUITY RISK PREMIUMS OF PROFESSIONAL FORECASTERS?

A. Yes. The financial forecasters in the previously referenced Federal Reserve Bank of Philadelphia survey project both stock and bond returns. As shown on page 4 of Exhibit JRW-7, the mean long-term expected stock and bond returns were 6.80% and 4.84%, respectively. This provides an ex ante equity risk premium of 1.96%.

Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH THE EQUITY RISK PREMIUMS USED BY THE LEADING CONSULTING FIRMS?

A. Yes. McKinsey & Co. is widely recognized as the leading management consulting firm in the world. It published a study entitled “The Real Cost of Equity” in which the McKinsey authors developed an ex ante equity risk premium for the U.S. In reference to the decline in the equity risk premium, as well as what is the appropriate equity risk premium to employ for corporate valuation purposes, the McKinsey authors concluded the following:

We attribute this decline not to equities becoming less risky (the inflation-adjusted cost of equity has not changed) but to investors demanding higher returns in

1 real terms on government bonds after the inflation
 2 shocks of the late 1970s and early 1980s. We believe
 3 that using an equity risk premium of 3.5 to 4 percent in
 4 the current environment better reflects the true long-
 5 term opportunity cost of equity capital and hence will
 6 yield more accurate valuations for companies.²⁴

7 **Q. WHAT EQUITY COST RATES ARE INDICATED BY YOUR CAPM**
 8 **ANALYSIS?**

9
 10 A. The results of my CAPM study for the proxy groups are provided below:

11
$$K = (R_f) + \beta * [E(R_m) - (R_f)]$$

12 **CAPM Equity Cost Rates**

	Electric Proxy Group	Gas Proxy Group
Risk-Free Rate	4.5%	4.5%
Beta	0.82	0.82
Equity Risk Premium	4.56%	4.56%
Equity Cost Rate	8.2%	8.2%

13
 14
 15 **V. EQUITY COST RATE SUMMARY**

16 **Q. PLEASE SUMMARIZE YOUR EQUITY COST RATE STUDY.**

17 A. The results for my DCF and CAPM analyses for the proxy groups of electric
 18 utility and gas distribution companies are indicated below:

	DCF	CAPM
Electric Proxy Group	9.9%	8.2%
Gas Proxy Group	9.2%	8.2%

²⁴ Marc H. Goedhart, et al, "The Real Cost of Equity," *McKinsey on Finance* (Autumn 2002), p. 15.

1 **Q. GIVEN THESE RESULTS, WHAT IS YOUR ESTIMATED EQUITY**
2 **COST RATE FOR THE GROUPS?**

3
4 A. Given these results, I conclude that the appropriate equity cost rate for Electric
5 Proxy Group in the 8.3%-9.9% range and for the Gas Proxy Group is in the
6 8.3%-9.2% range. However, since I give greater weight to the DCF model,
7 and due to the current volatile market conditions which are discussed below, I
8 am using the upper end of the range as the equity cost rate. Therefore, I am
9 recommending an equity cost rate of 9.9% for the electric utility business of
10 LG&E and 9.2% for the gas distribution operations of LG&E. In addition,
11 due to the uncertain market conditions, I reserve the right to update my study
12 prior to hearings. Finally, given the common equity ratio proposed by the
13 Company and adopted by the OAG, in comparison to the average common
14 equity ratios for the Electric and Gas Proxy Groups, these recommendations
15 are very fair to the Company.

16
17 **Q. FINALLY, PLEASE DISCUSS THE IMPACT OF RECENT CAPITAL**
18 **MARKET VOLATILITY CONDITIONS ON THE EQUITY RISK**
19 **PREMIUM AND THE EQUITY COST RATE.**

20
21 A. To assess the impact of recent capital market volatility on the equity risk
22 premium and the equity cost rate, one must look at the volatility of stocks
23 relative to bonds. I have performed such an analysis below. To compare the
24 volatility of stock and bonds, one must standardize the volatility measure.
25 This is normally done by dividing the volatility measure, the standard

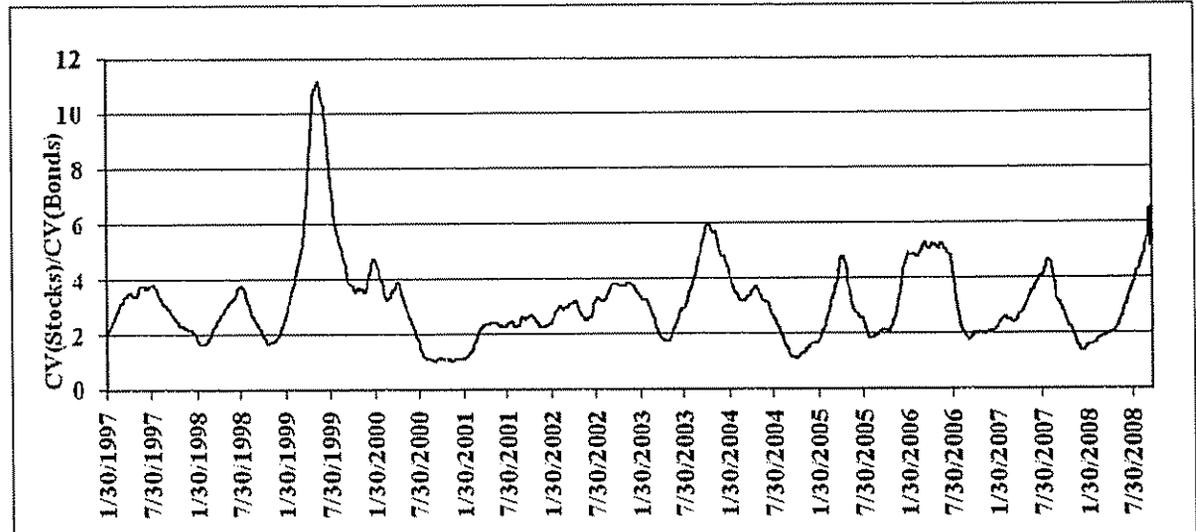
1 deviation, by the mean. This standardized volatility measure is known as the
2 Coefficient of Variation (“CV”).

3
4 **Q. GIVEN THESE OBSERVATIONS, PLEASE PROVIDE YOUR**
5 **ASSESSMENT OF THE IMPACT OF RECENT CAPITAL MARKET**
6 **CONDITIONS ON THE EQUITY COST RATE.**

7
8 A. I have performed an analysis of the volatility of stocks relative to bonds since
9 1997. I have used the S&P 500 and the Bear Sterns Bond Price Index
10 (“BSBPI”) and computed the CV using a 200-day mean and standard
11 deviation. In Figure 1 below, I have graphed the ratio of the CV(Stock
12 CV)/CV(Bond CV). Hence, this graph shows the standardized volatility of
13 stocks relative to bonds. Higher levels of this ratio represent time periods
14 when stock volatility is high relative to bond volatility, and low levels of this
15 ratio occur during time periods when stock volatility is low relative to bonds.
16 During the last two quarters of 2007, the volatility of bonds increased relative
17 to stocks due to the subprime mortgage crisis. Through October of this year,
18 stocks have increased in volatility relative to bonds. On the relative CV
19 measure, stocks reached a five-year high in terms of relative volatility. As
20 such, current market conditions suggest that stock volatility is high relative to
21 bond volatility. In recognition of this situation, I am using the high end of the
22 range for my equity cost rate recommendation for the electric and gas
23 operations of LG&E.

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**Coefficient of Variation
S&P 500 Price CV/Bear Sterns Bond Price Index CV
1997-2008**



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6 **Q. ISN'T YOUR EQUITY COST RATE RECOMMENDATION LOW BY**
7 **HISTORICAL STANDARDS?**

8
9

10 A. Yes it is and appropriately so. My rate of return is low by historical standards
11 for two reasons. First, as discussed above, current capital costs are very low
12 by historical standards, with interest rates at a cyclical low not seen since the
13 1960s. And second, as previously discussed, the equity or market risk
premium has declined.

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14 **Q. HOW DO YOU TEST THE REASONABLENESS OF YOUR COST OF**
15 **EQUITY AND OVERALL RATE OF RETURN**
16 **RECOMMENDATION?**

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19

17 A. To test the reasonableness of my equity cost rate recommendation, I examine
18 the relationship between the return on common equity and the market-to-book
19

1 ratios for the companies in the proxy groups of electric utility and gas
2 distribution companies.

3 **Q. WHAT DO THE RETURNS ON COMMON EQUITY AND MARKET-**
4 **TO-BOOK RATIOS FOR THE PROXY GROUPS INDICATE ABOUT**
5 **THE REASONABLENESS OF YOUR RECOMMENDATION?**

6
7 A. Exhibit JRW-2 provides financial performance and market valuation statistics
8 for companies in the two proxy groups. The mean current return on equity
9 and market-to-book ratios for the group is summarized below:

10

	Current ROE	Market-to-Book Ratio
Electric Proxy Group	10.2 %	1.63
Gas Proxy Group	11.2 %	1.82

11

Source: Exhibit JRW-2

12

13

These results indicate that, on average, these companies are earning
returns on equity above their equity cost rates. As such, this observation
provides evidence that my recommended equity cost rate is reasonable and
fully consistent with the financial performance and market valuation of the
proxy groups of electric utility and gas distribution companies.

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VI. CRITIQUE OF LG&E'S RATE OF RETURN TESTIMONY

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Q. PLEASE EVALUATE THE COMPANY'S RATE OF RETURN POSITION.

A. The Company's proposed rate of return is inflated due to overstated debt and equity cost rates. The debt cost rates were previously discussed. I will now discuss the errors with Dr. Avera's equity cost rate analysis.

Q. PLEASE REVIEW DR. AVERA'S EQUITY COST RATE APPROACHES.

A. Dr. Avera uses a proxy group of electric and gas companies as well as a proxy group of non-utility companies and employs DCF, CAPM, and Expected Earnings equity cost rate approaches.

Q. PLEASE SUMMARIZE DR. AVERA'S EQUITY COST RATE RESULTS.

A. Dr. Avera's equity cost rate estimates for LG&E are summarized in the table below. Based on these figures, he concludes that the appropriate equity cost rate for the Company is 11.25%.

Summary of Dr. Avera's Equity Cost Rate Approaches and Results

Approach	Utility Proxy Group	Non-Utility Proxy Group
DCF	10.9%	12.7%
RP	11.9%	11.4%
Expected Earnings	11.5%	

Q. PLEASE DISCUSS YOUR ISSUES WITH DR. AVERA'S

1 **RECOMMENDED EQUITY COST RATE.**

2

3 A. Dr. Avera’s proposed return on common equity is too high primarily due to: (a)

4 some of the companies in his utility proxy group, as well as his use of a non-

5 utility proxy group; (b) an excessive adjustment to the dividend yield and an

6 inflated growth rate in his DCF approach; (c) overstated equity risk premium

7 estimates in his CAPM approach; and (d) a flawed Expected Earnings approach.

8

9 **A. Proxy Groups**

10

11 **Q. PLEASE DISCUSS THE PROBLEM WITH DR. AVERA’S UTILITY**

12 **PROXY GROUP.**

13

14 A. Dr. Avera’s utility proxy group includes a number of companies that are not

15 appropriate because their operating revenues are from sources other than

16 regulated electric utility services. These companies, and their percent of

17 regulated electric revenues, include: Constellation Energy – 13%, Great Plains

18 Energy – 39%, OGE Energy – 48%, Otter Tail Corp. – 28%, SEMPRA Energy –

19 27%, Westar Energy – 69%, and Wisconsin Energy – 62%.

20

21 **Q. PLEASE DISCUSS THE PROBLEM WITH DR. AVERA’S NON-**

22 **UTILITY PROXY GROUP.**

23

24 A. Dr. Avera has estimated an equity cost rate for LG&E using a proxy group of 44

25 non-utility companies. These companies are listed in Exhibit WEA-3. This

26 group includes such companies as Coca-Cola, General Electric, IBM, Johnson &

27 Johnson, McDonald’s, Microsoft, and NIKE. While these companies are large

1 and successful, their lines of business are vastly different from the electric and
2 gas utility businesses and they do not operate in highly regulated environment.
3 As such, the non-utility group is not an appropriate proxy for the electric and gas
4 utility operations of LG&E and therefore the equity cost rate results for this
5 group should be ignored.

6
7 **Q. PLEASE DISCUSS EXHIBIT JRW-8.**

8
9 A. In Exhibit JRW-8, I have performed an analysis that highlights the significant
10 financial differences between Dr. Avera's non-utility and utility proxy groups. I
11 have shown four different financial measures for the two groups: return on
12 equity, market-to-book ratio, fixed asset turnover, and common equity ratio.
13 The average return on equity for the non-utility group (23.53%) is twice the
14 average return on common equity of the utility group (12.67%). As a result, the
15 average market-to-book ratio of the non-utility group is also about double the
16 average market-to-book ratio of the utility group return (3.53 vs. 1.63). The
17 utility business is very capital intensive, and the fixed asset turnover ("FAT")
18 ratio (revenues/net fixed assets) measures capital intensity with a lower figure
19 indicating higher capital intensity. The FAT ratio for the utility group is only
20 0.90, while the ratio for the non-utility group is 5.44. Hence, in terms of capital
21 intensity, the non-utility group is very dissimilar to the utility group. The
22 common equity ("CE") ratio (common equity/total capital) measures the percent
23 of capital represented by equity capital. For the utility group, the CE ratio is
24 53.88%, while the CE ratio for the non-utility group is 73.66%.

1 Overall, the results in Exhibit JRW-8 indicate that Dr. Avera's non-
2 utility group has a significantly different financial profile than his utility group
3 and therefore should not be used to estimate an equity cost rate for LG&E.
4

5 **B. DCF Approach**
6

7 **Q. PLEASE SUMMARIZE DR. AVERA'S DCF ESTIMATES.**

8 A. On pages 21-38 of his testimony and in Exhibits WEA-1 – WEA-4, Dr. Avera
9 develops an equity cost rate by applying a DCF model to his utility and non-
10 utility proxy groups. In the traditional DCF approach, the equity cost rate is the
11 sum of the dividend yield and expected growth. For the DCF growth rate, Dr.
12 Avera uses five measures of projected EPS growth – the projected EPS growth
13 of Wall Street analysts as compiled by IBES, Reuters, Zack's, *Value Line*
14 projected EPS growth, and the sum of internal ("br") and external ("sv") growth.
15 Dr. Avera's DCF results are summarized below.
16

DCF Equity Cost Rate

	Utility Proxy Group	Non-Utility Proxy Group
Adjusted Dividend Yield	3.7%	2.5%
Expected EPS Growth from V-Line, IBES, Reuters, Zacks, and br+sv	6.4% - 8.5%	9.19% - 10.79%
DCF Result	10.5% - 11.5%	12.4% - 12.9%

17
18 **Q. PLEASE EXPRESS YOUR CONCERNS WITH DR. AVERA'S DCF STUDY.**
19

20
21 A. I have several issues with Dr. Avera's DCF equity cost rate. These are the utility

1 and non-utility proxy groups, and the DCF growth rate measures. The errors in
2 the proxy groups were discussed above. The DCF growth rate measures are
3 reviewed below.

4
5 **Q. PLEASE CRITIQUE DR. AVERA'S DCF GROWTH RATE MEASURES.**

6
7
8 A. Dr. Avera employs five different DCF growth rate measures - the projected
9 EPS growth of Wall Street analysts as compiled by IBES, Reuters, Zack's, *Value*
10 *Line* projected EPS growth, and sustainable growth as measured by the sum of
11 internal ("br") and external ("sv") growth.

12
13 **Q. PLEASE INITIALLY DISCUSS DR. AVERA'S RELIANCE ON THE**
14 **PROJECTED EPS GROWTH RATES OF WALL STREET ANALYSTS**
15 **AND VALUE LINE.**

16
17 A. It seems highly unlikely that investors today would rely excessively on the
18 forecasts of securities analysts and ignore historical growth in arriving at
19 expected growth. It is well known in the academic world that the EPS
20 forecasts of securities analysts are overly optimistic and biased upwards. In
21 addition, as I show below, *Value Line's* EPS forecasts are excessive and
22 unrealistic.

23
24 **Q. PLEASE REVIEW THE BIAS IN ANALYSTS' GROWTH RATE**
25 **FORECASTS.**

26
27 A. Analysts' growth rate forecasts are collected and published by Zacks, First Call,
28 I/B/E/S, and Reuters. These services retrieve and compile EPS forecasts from

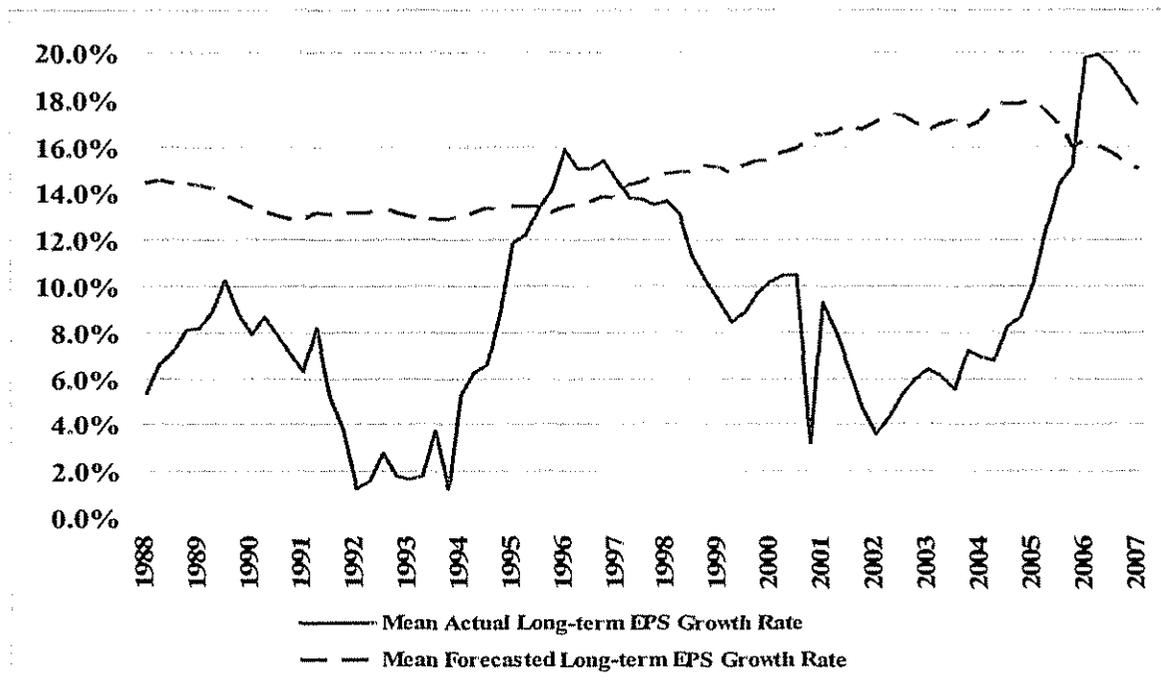
1 Wall Street analysts. These analysts come from both the sell side (Merrill Lynch,
2 Paine Webber) and the buy side (Prudential Insurance, Fidelity).

3 The problem with using these forecasts to estimate a DCF growth rate
4 is that the objectivity of Wall Street research has been challenged, and many
5 have argued that analysts' EPS forecasts are overly optimistic and biased
6 upwards. To evaluate the accuracy of analysts' EPS forecasts, I have
7 compared actual 3-5 year EPS growth rates with forecasted EPS growth rates
8 on a quarterly basis over the past 20 years for all companies covered by the
9 I/B/E/S data base. In the graph below, I show the average analysts' forecasted
10 3-5 year EPS growth rate with the average actual 3-5 year EPS growth rate.
11 Because of the necessary 3-5 year follow-up period to measure actual growth,
12 the analysis in this graph only: (1) covers forecasted and actual EPS growth
13 rates through 1999 and (2) includes only companies that have 3-5 years of
14 actual EPS data following the forecast period.

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Long-Term Forecasted Versus Actual EPS Growth Rates 1988-2007



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Source: Patrick J. Cusatis and J. Randall Woolridge, "The Accuracy of Analysts' Long-Term Earnings Per Share Growth Rate Forecasts," (July, 2008).

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The following example shows how the results can be interpreted. For the 3-5-year period prior to the first quarter of 1999, analysts had projected an EPS growth rate of 15.13%, but companies only generated an average annual EPS growth rate over the 3-5 years of 9.37%. This projected EPS growth rate figure represented the average projected growth rate for over 1,510 companies, with an average of 4.88 analysts' forecasts per company. For the entire twenty-year period of the study, for each quarter there were on average 5.60 analysts' EPS projections for 1,281 companies. Overall, my findings indicate that forecast errors for long-term estimates are predominantly positive, which indicates an upward bias in growth rate estimates. The mean and median forecast errors over the observation period are 143.06% and

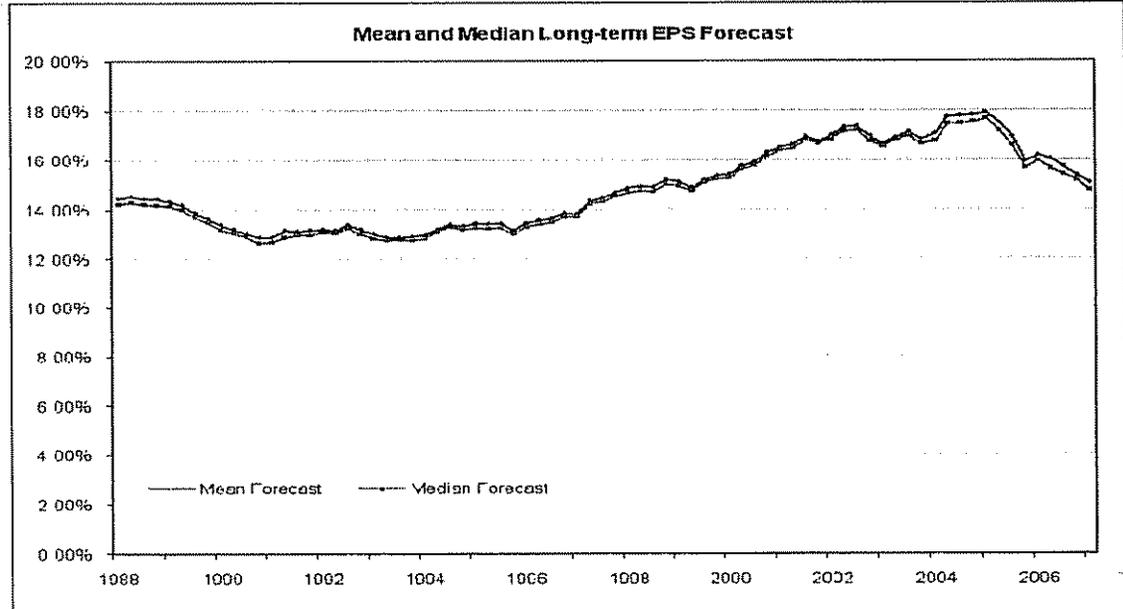
1 75.08%, respectively. The forecast errors are negative for only eleven of the
2 eighty quarterly time periods: five consecutive quarters starting at the end of
3 1995 and six consecutive quarters starting in 2006. As shown in the figure
4 below, the quarters with negative forecast errors were for the 3-5 year periods
5 following earnings declines associated with the 1991 and 2001 economic
6 recessions in the U.S. Overall. Thus, there is evidence of a persistent upward
7 bias in long-term EPS growth forecasts.

8 The post-1999 period has seen the boom and then the bust in the stock
9 market, an economic recession, 9/11, and the Iraq war. Furthermore, and
10 highly significant in the context of this study, we have also had the New York
11 State investigation of Wall Street firms and the subsequent Global Securities
12 Settlement in which nine major brokerage firms paid a fine of \$1.5B for their
13 biased investment research.

14 To evaluate the impact of these events on analysts' forecasts, the graph
15 below provides the average 3-5-year EPS growth rate projections for all
16 companies provided in the I/B/E/S database on a quarterly basis from 1988 to
17 2006. In this graph no comparison to actual EPS growth rates is made, and
18 hence, there is no follow-up period. Therefore, 3-5 year growth rate forecasts
19 are shown until 2006, and since companies are not lost due to a lack of follow-
20 up EPS data, these results are for a larger sample of firms. Analysts' forecasts
21 for EPS growth were higher for this larger sample of firms, with a more
22 pronounced run-up and then decline around the stock market peak in 2000.
23 The average projected growth rate hovered in the 14.5%-17.5% range until

1 1995 and then increased dramatically over the next five years to 23.3% in the
2 fourth quarter of the year 2000. Forecasted EPS growth has since declined to
3 the 15.0% range.

4 **Long-Term IBES Forecasted EPS Growth Rates**
5 **1988-2007**



6 Source: Patrick J. Cusatis and J. Randall Woolridge, "The Accuracy of Analysts' Long-Term
7 Earnings Per Share Growth Rate Forecasts," (July, 2008).
8
9

10 **Q. WHAT IMPACT HAVE RECENT STOCK MARKET AND**
11 **REGULATORY DEVELOPMENTS HAD ON ANALYSTS' EPS**
12 **GROWTH RATE FORECASTS?**

13
14 A. Analysts' EPS growth rate forecasts have subsided somewhat since the stock
15 market peak of 2000. In addition, the apparent conflict of interest within
16 investment firms with investment banking and analysts' operations was
17 addressed in the Global Analysts Research Settlements ("GARS"). GARS, as
18 agreed upon on April 23, 2003 between the SEC, NASD, NYSE and ten of the
19 largest U.S. investment firms, includes a number of regulations that were
20 introduced to prevent investment bankers from pressuring analysts to provide

1 favorable projections. Nonetheless, despite the new regulations, analysts'
2 EPS growth rate forecasts have not significantly changed and continue to be
3 overly-optimistic. Analysts' long-term EPS growth rate forecasts before and
4 after the GARS, are about two times the level of historic GDP growth.
5 Furthermore, as discussed later in my testimony, historic growth in GDP and
6 corporate earnings has been in the 7% range.

7 Finally, these observations are supported by a *Wall Street Journal*
8 article entitled "Analysts Still Coming Up Rosy – Over-Optimism on Growth
9 Rates is Rampant – and the Estimates Help to Buoy the Market's Valuation."
10 The following quote provides insight into the continuing bias in analysts'
11 forecasts:

12 Hope springs eternal, says Mark Donovan, who
13 manages Boston Partners Large Cap Value Fund. "You
14 would have thought that, given what happened in the
15 last three years, people would have given up the ghost.
16 But in large measure they have not."

17 These overly optimistic growth estimates also show
18 that, even with all the regulatory focus on too-bullish
19 analysts allegedly influenced by their firms' investment-
20 banking relationships, a lot of things haven't changed:
21 Research remains rosy and many believe it always
22 will.²⁵

23
24 **Q. IS THE BIAS IN ANALYSTS' GROWTH RATE FORECASTS**
25 **GENERALLY KNOWN IN THE MARKETS?**
26

27 **A.** Yes. Exhibit JRW-9 provides a recent article published in the *Wall Street*
28 *Journal* that discusses the upward bias in analysts' EPS growth rate forecasts.

²⁵ Ken Brown, "Analysts Still Coming Up Rosy – Over-Optimism on Growth Rates is Rampant – and the Estimates Help to Buoy the Market's Valuation." *Wall Street Journal*, (January 27, 2003), p. C1.

1 **Q. ARE ANALYSTS' EPS GROWTH RATE FORECASTS LIKEWISE**
2 **UPWARDLY BIASED FOR ELECTRIC UTILITY COMPANIES?**

3
4 A. Yes. To evaluate whether analysts' EPS growth rate forecasts are upwardly
5 biased for electric utility companies, I conducted a study similar to the one
6 described above using a group of electric utility companies. The results are
7 shown in the chart below. The projected EPS growth rates have declined from
8 about six percent in the 1990s to about five percent in the 2000s. As shown,
9 the achieved EPS growth rates have been volatile. Overall, the upward bias in
10 EPS growth rate projections is not as pronounced for electric utility
11 companies it is for all companies. Over the entire period, the average quarterly
12 3-5 year projected and actual EPS growth rates are 4.59% and 2.90%,
13 respectively. These results are consistent with the results for companies in
14 general -- analysts' projected EPS growth rate forecasts are upwardly-biased
15 for utility companies.

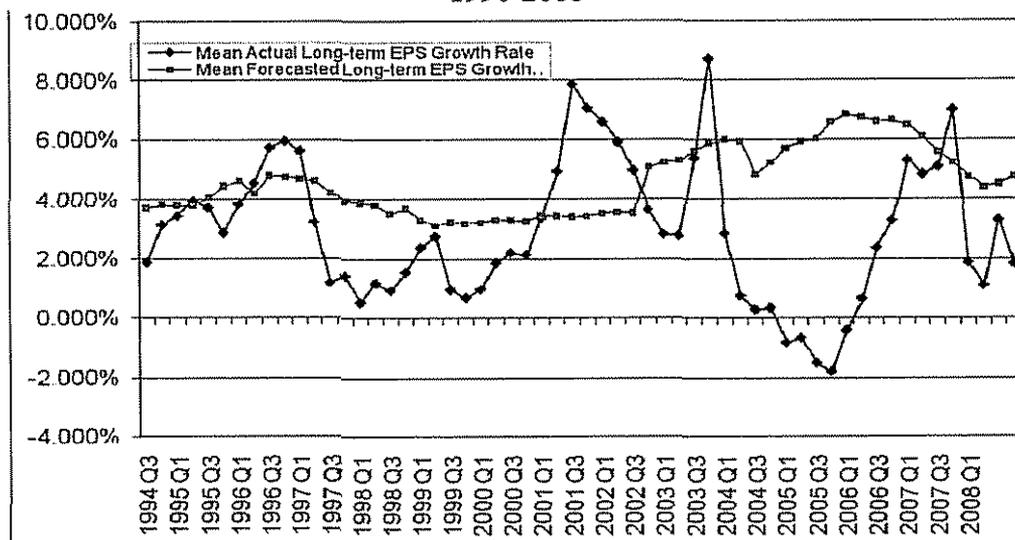
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4

**Analysts' 3-5-Year Forecasted Versus Actual EPS Growth Rates
Electric Utility Companies
1990-2008**



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Q. ARE ANALYSTS' EPS GROWTH RATE FORECASTS ALSO UPWARDLY BIASED FOR NATURAL GAS DISTRIBUTION COMPANIES?

13

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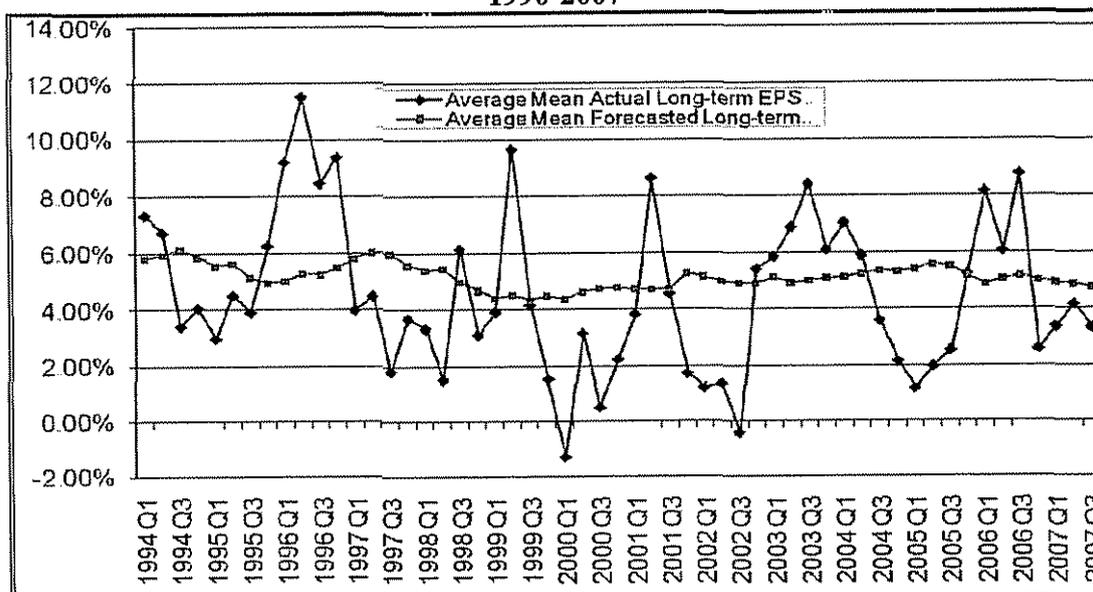
20

21

A. Yes. To evaluate whether analysts' EPS growth rate forecasts are upwardly biased for natural gas distribution companies, I conducted a study similar to the one described above using a group of gas companies. The results are shown in the chart below. The projected EPS growth rates have declined from about six percent in the 1990s to about five percent in the 2000s. As shown, the achieved EPS growth rates have been volatile. Overall, the upward bias in EPS growth rate projections is not as pronounced for gas distribution companies it is for all companies. Over the entire period, the average quarterly 3-5 year projected and actual EPS growth rates are 5.15% and 4.53%, respectively. The results here are consistent with the results for companies in

1 general -- analysts' projected EPS growth rate forecasts are upwardly-biased
 2 for utility companies.

3
 4 **Analysts' 3-5-Year Forecasted Versus Actual EPS Growth Rates**
 5 **Natural Gas Distribution Companies**
 6 **1990-2007**



7
 8
 9
 10 **Q. ARE VALUE LINE'S GROWTH RATE FORECASTS SIMILARLY**
 11 **UPWARDLY BIASED?**

12
 13 A. Yes. *Value Line* has a decidedly positive bias to its earnings growth rate
 14 forecasts as well. To assess *Value Line's* earnings growth rate forecasts, I used
 15 the *Value Line Investment Analyzer*. The results are summarized in the table
 16 below. I initially filtered the database and found that *Value Line* has 3-5 year
 17 EPS growth rate forecasts for 2,453 firms. The average projected EPS growth
 18 rate was 14.6%. This is high given that the average historical EPS growth rate in
 19 the U.S. is about 7%. A major factor seems to be that *Value Line* only predicts
 20 negative EPS growth for 47 companies. This is less than two percent of the

1 companies covered by *Value Line*. Given the ups and downs of corporate
2 earnings, this is unreasonable.

3 **Value Line 3-5 year EPS Growth Rate Forecasts**

	Average Projected EPS Growth rate	Number of Negative EPS Growth Projections	Percent of Negative EPS Growth Projections
2,453 Companies	14.6%	47	1.9%

4
5 To put this figure in perspective, I screened the *Value Line* companies to
6 see what percent of companies covered by *Value Line* had experienced negative
7 EPS growth rates over the past five years. *Value Line* reported a five-year
8 historic growth rate for 2,371 companies. The results shown in the table below
9 indicate that the average 5-year historic growth rate was 12.9%, and *Value Line*
10 reported negative historic growth for 476 firms which represents 20.1% of these
11 companies. It should be noted that the past five years have been a period of
12 rapidly rising corporate earnings growth as the economy and businesses have
13 rebounded from the recession of 2001.

14 **Historical Five-Year EPS Growth Rates for *Value Line* Companies**

	Average Historical EPS Growth rate	Number with Negative Historical EPS Growth	Percent with Negative Historical EPS Growth
2,371 Companies	12.9%	476	20.1%

15
16 These results indicate that *Value Line's* EPS forecasts are excessive and
17 unrealistic. It appears that the analysts at *Value Line* are similar to their Wall
18 Street brethren in that they are reluctant to forecast negative earnings growth.

1 **Q. PLEASE SUMMARIZE YOUR ASSESSMENT OF DR. AVERA'S DCF**
2 **GROWTH RATE.**

3
4 A. Dr. Avera's DCF equity cost rate is overstated because he has relied so heavily
5 on the upwardly biased EPS growth rate forecasts of Wall Street analysts and
6 *Value Line*.

7 **C. CAPM Analysis**

8
9 **Q. PLEASE DISCUSS DR. AVERA'S CAPM.**

10 A. On pages 38 to 41 and Exhibits WEA-5 and WEA-6, Dr. Avera applies the
11 CAPM method to his utility and non-utility proxy groups. The results are
12 summarized below:

13 **CAPM Equity Cost Rate**

	Utility Proxy Group	Non- Utility Proxy Group
Risk-Free Rate	4.40%	4.40%
Beta	0.84	0.79
Market Risk Premium	8.90%	8.90%
CAPM Result	11.9%	11.4%

14
15 **Q. WHAT ARE THE ERRORS IN DR. AVERA'S CAPM ANALYSIS?**

16 A. The major flaw in Dr. Avera's CAPM analysis is his equity or market risk
17 premium of 8.90%.

18
19 **Q. PLEASE REVIEW DR. AVERA'S EQUITY OR MARKET RISK**
20 **PREMIUM IN HIS CAPM APPROACH.**
21

1 A. The primary problem with Dr. Avera's CAPM analysis is the size of the market
2 or equity risk premium. Dr. Avera develops an expected market risk premium of
3 8.90% by: (1) applying the DCF model to the S&P 500 to get an expected
4 market return; and (2) subtracting the risk-free rate of interest. Dr. Avera's
5 estimated market return of 13.3% for the S&P 500 equals the sum of the
6 dividend yield of 2.4% and expected EPS growth rate of 10.9%. The expected
7 EPS growth rate is the average of the expected EPS growth rates from IBES
8 and *Value Line*. The primary error in this approach is his expected DCF
9 growth rate. As previously discussed, the expected EPS growth rates of Wall
10 Street analysts and *Value Line* are upwardly biased. Therefore, as explained
11 below, this produces an overstated expected market return and equity risk
12 premium.

13
14 **Q. BEYOND YOUR PREVIOUS DISCUSSION OF THE UPWARD BIAS**
15 **IN ANALYSTS' AND *VALUE LINE*'S EPS GROWTH RATE**
16 **FORECASTS, WHAT OTHER EVIDENCE CAN YOU PROVIDE**
17 **THAT DR. AVERA'S S&P 500 GROWTH RATE IS EXCESSIVE?**

18
19
20 A. A long-term EPS growth rate of 10.9% is inconsistent with economic and
21 earnings growth in the U.S. The long-term economic and earnings growth
22 rate in the U.S. has only been about 7%. I have performed a study of the
23 growth in nominal GDP, S&P 500 stock price appreciation, and S&P 500 EPS
24 and DPS growth since 1960. The results are provided on page 1 of Exhibit
25 JRW-10, and a summary is given in the table below.

26

**GNP, S&P 500 Stock Price, EPS, and DPS Growth
1960-Present**

Nominal GDP	7.20%
S&P 500 Stock Price Appreciation	7.12%
S&P 500 EPS	7.36%
S&P 500 DPS	5.77%
Average	6.86%

These results offer compelling evidence that a long-run growth rate of about 7% is appropriate for companies in the U.S. By comparison, Dr. Avera's long-run growth rate projection of 10.9% is clearly not realistic. These estimates suggest that companies in the U.S. would be expected to: (1) increase their growth rate of EPS by over 50% in the future and (2) maintain that growth indefinitely in an economy that is expected to grow at about one half his projected growth rates. Such a scenario is not economically feasible or reasonable.

Q. PLEASE PROVIDE A SUMMARY ASSESSMENT OF DR. AVERA'S EQUITY RISK PREMIUM OF 8.9% DERIVED USING AN EXPECTED MARKET RETURN OF 13.3%.

A. Dr. Avera's equity risk premium derived from an expected market return of 13.3% is inflated and does not reflect current market fundamentals or prospective economic and earnings growth. As previously discussed, at the present time stock prices (relative to earnings and dividends) are high while interest rates are low. Major stock market upswings that produce above average returns tend to occur when stock prices are low and interest rates are high. Thus, current market conditions do not suggest above-average expected

1 market return. Consistent with this observation, the financial forecasters in the
2 Federal Reserve Bank of Philadelphia survey expect a market return of 6.80%
3 over the next ten years. In addition, the third quarter 2008 *CFO Magazine* –
4 Duke University Survey of over 500 CFOs shows an expected return on the
5 S&P 500 of 7.79% over the next ten years.

6
7 **Q. TO CONCLUDE THIS DISCUSSION, PLEASE SUMMARIZE DR.**
8 **AVERA'S MARKET RISK PREMIUM AND CAPM RESULTS IN**
9 **LIGHT OF THE EVIDENCE ON RISK PREMIUMS IN TODAY'S**
10 **MARKETS.**

11
12 A. Dr. Avera's market risk premium of 8.9% is well in excess of the equity risk
13 premium estimates discovered in recent academic studies by leading finance
14 scholars and is especially out of touch with the real world of finance.
15 Investment banks, consulting firms, and CFOs use the equity risk premium
16 concept every day in making financing, investment, and valuation decisions.
17 The results of studies and surveys from the real world of finance indicate an
18 equity risk premium in the 4 percent range and not in the 8 percent range.

19
20 **D. Expected Earnings Approach**

21
22 **Q. PLEASE DISCUSS DR. AVERA'S EXPECTED EARNINGS**
23 **ANALYSIS.**

24
25 A. In pages 41-42 of his testimony and Exhibit WEA-7, Dr. Avera estimates an
26 equity cost rate of 11.8% for the Company employing an approach he calls the

1 Expected Earnings (“EE”) approach. His methodology simply involves using
2 the expected ROE for the companies in his proxy group as estimated by *Value*
3 *Line*. This approach is fundamentally flawed for several reasons. First, these
4 results include the profits associated with the unregulated operations of the
5 utility proxy group. As previously noted, the unregulated operations are
6 significant for several of the utility proxy companies. More importantly, since
7 Dr. Avera has not evaluated the market-to-book ratios for these companies, he
8 cannot indicate whether the past and projected returns on common equity are
9 above or below investors' requirements. These returns on common equity are
10 excessive if the market-to-book ratios for these companies are above 1.0. For
11 example, Constellation Energy’s projected return on equity is 16.9%.
12 However, I doubt if any financial analyst, including Dr. Avera, would suggest
13 that Constellation has an equity cost rate of 16.9%. Indeed, the market-to-
14 book ratio for Constellation is about 2.0X. This indicates that its return on
15 equity is above its cost of equity capital.

16
17 **E. Flotation Costs**

18
19 **Q. PLEASE DISCUSS DR. AVERA’S ADJUSTMENT FOR FLOTATION**
20 **COSTS.**
21

22 A. While making no specific adjustment, Dr. Avera has recommended that
23 flotation costs be considered in setting a return on equity for the Company.
24 This consideration is erroneous for several reasons. First, the Company has

1 not identified any actual flotation costs. Therefore, the Company is requesting
2 annual revenues in the form of a higher return on equity for flotation costs that
3 have not been identified. Second, it is commonly argued that a flotation cost
4 adjustment (such as that used by the Company) is necessary to prevent the
5 dilution of the existing shareholders. In this case, a floatation cost adjustment
6 is justified by reference to bonds and the manner in which issuance costs are
7 recovered by including the amortization of bond flotation costs in annual
8 financing costs. However, this is incorrect for several reasons:

9 (1) If an equity flotation cost adjustment is similar to a debt flotation cost
10 adjustment, the fact that the market-to-book ratios for utility companies are
11 over 1.5X actually suggests that there should be a flotation cost reduction (and
12 not increase) to the equity cost rate. This is because when (a) a bond is issued
13 at a price in excess of face or book value, and (b) the difference between
14 market price and the book value is greater than the flotation or issuance costs,
15 the cost of that debt is lower than the coupon rate of the debt. The amount by
16 which market values of utility companies are in excess of book values is much
17 greater than flotation costs. Hence, if common stock flotation costs were
18 exactly like bond flotation costs, and one was making an explicit flotation cost
19 adjustment to the cost of common equity, the adjustment would be downward;

20 (2) If a flotation cost adjustment is needed to prevent dilution of existing
21 stockholders' investment, then the reduction of the book value of stockholder
22 investment associated with flotation costs can occur only when a company's
23 stock is selling at a market price at/or below its book value. As noted above,

1 utility companies are selling at market prices well in excess of book value.

2 Hence, when new shares are sold, existing shareholders realize an increase in

3 the book value per share of their investment, not a decrease;

4 (3) Flotation costs consist primarily of the underwriting spread or fee and not

5 out-of-pocket expenses. On a per share basis, the underwriting spread is the

6 difference between the price the investment banker receives from investors

7 and the price the investment banker pays to the company. Hence, these are

8 not expenses that must be recovered through the regulatory process.

9 Furthermore, the underwriting spread is known to the investors who are

10 buying the new issue of stock, who are well aware of the difference between

11 the price they are paying to buy the stock and the price that the Company is

12 receiving. The offering price which they pay is what matters when investors

13 decide to buy a stock based on its expected return and risk prospects.

14 Therefore, the company is not entitled to an adjustment to the allowed return

15 to account for those costs; and

16 (4) Flotation costs, in the form of the underwriting spread, are a form of a

17 transaction cost in the market. They represent the difference between the

18 price paid by investors and the amount received by the issuing company.

19 Whereas the Company believes that it should be compensated for these

20 transactions costs, they have not accounted for other market transaction costs

21 in determining a cost of equity for the Company. Most notably, brokerage fees

22 that investors pay when they buy shares in the open market are another market

23 transaction cost. Brokerage fees increase the effective stock price paid by

1 investors to buy shares. If the Company had included these brokerage fees or
2 transaction costs in their DCF analysis, the higher effective stock prices paid
3 for stocks would lead to lower dividend yields and equity cost rates. This
4 would result in a downward adjustment to their DCF equity cost rate.

5

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

7 **A. Yes.**

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

J. Randall Woolridge is a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed Faculty Fellow in Business Administration in the College of Business Administration of the Pennsylvania State University in University Park, PA. In addition, Professor Woolridge is Director of the Smeal College Trading Room and President and CEO of the Nittany Lion Fund, LLC.

Professor Woolridge received a Bachelor of Arts degree in Economics from the University of North Carolina, a Master of Business Administration degree from the Pennsylvania State University, and a Doctor of Philosophy degree in Business Administration (major area-finance, minor area-statistics) from the University of Iowa. At Iowa he received a Graduate Fellowship and was awarded membership in Beta Gamma Sigma, a national business honorary society. He has taught Finance courses at the University of Iowa, Cornell College, and the University of Pittsburgh, as well as the Pennsylvania State University. These courses include corporation finance, commercial and investment banking, and investments at the undergraduate, graduate, and executive MBA levels.

Professor Woolridge's research has centered on the theoretical and empirical foundations of corporation finance and financial markets and institutions. He has published over 35 articles in the best academic and professional journals in the field, including the *Journal of Finance*, the *Journal of Financial Economics*, and the *Harvard Business Review*. His research has been cited extensively in the business press. His work has been featured in the *New York Times*, *Forbes*, *Fortune*, *The Economist*, *Financial World*, *Barron's*, *Wall Street Journal*, *Business Week*, *Washington Post*, *Investors' Business Daily*, *Worth Magazine*, *USA Today*, and other publications. In addition, Dr. Woolridge has appeared as a guest to discuss the implications of his research on CNN's *Money Line*, CNBC's *Morning Call* and *Business Today*, and Bloomberg Televisions' *Morning Call*.

Professor Woolridge's popular stock valuation book, *The StreetSmart Guide to Valuing a Stock* (McGraw-Hill, 2003), was released in its second edition. He has also co-authored *Spinoffs and Equity Carve-Outs: Achieving Faster Growth and Better Performance* (Financial Executives Research Foundation, 1999) as well as a new textbook entitled *Applied Principles of Finance* (Kendall Hunt, 2006). Dr. Woolridge is a founder and a managing director of www.valuepro.net - a stock valuation website.

Professor Woolridge has also consulted with and prepared research reports for major corporations, financial institutions, and investment banking firms, and government agencies. In addition, he has directed and participated in over 500 university- and company- sponsored professional development programs for executives in 25 countries in North and South America, Europe, Asia, and Africa.

Dr. Woolridge has prepared testimony and/or provided consultation services in the following cases:

Pennsylvania: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Pennsylvania Public Utility Commission; Bell Telephone Company (R-811819), Peoples Natural Gas Company (R-832315), Pennsylvania Power Company (R-832409), Western Pennsylvania Water Company (R-832381), Pennsylvania Power Company (R-842740), Pennsylvania Gas and Water Company (R-850178), Metropolitan Edison Company (R-860384), Pennsylvania Electric Company (R-860413), North Penn Gas Company (R-860535), Philadelphia Electric Company (R-870629), Western Pennsylvania Water Company (R-870825), York Water Company (R-870749), Pennsylvania-American Water Company (R-880916), Equitable Gas Company (R-880971), the Bloomisburg Water Co. (R-891494), Columbia Gas of Pennsylvania, Inc (R-891468), Pennsylvania-American Water Company (R-90562), Breezewood Telephone Company (R-901666), York Water Company (R-901813), Columbia Gas of Pennsylvania, Inc. (R-901873), National Fuel Gas Corporation (R-911912), Pennsylvania-American Water Company (R-911909), Borough of Media Water Fund (R-912150), UGI Utilities, Inc. - Electric Utility Division (R-922195), Dauphin Consolidated Water Supply Company - General Waterworks of Pennsylvania, Inc, (R-932604), National Fuel Gas Corporation (R-932548), Commonwealth Telephone Company (I-

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

920020), Conestoga Telephone and Telegraph Company (I-920015), Peoples Natural Gas Company (R-932866), Blue Mountain Consolidated Water Company (R-932873), National Fuel Gas Corporation (R-942991), UGI - Gas Division (R-953297), UGI - Electric Division (R-953534), Pennsylvania-American Water Company (R-973944), Pennsylvania-American Water Company (R-994638), Philadelphia Suburban Water Company (R-994868;R-994877;R-994878; R-9948790), Philadelphia Suburban Water Company (R-994868), Wellsboro Electric Company (R-00016356), Philadelphia Suburban Water Company (R-00016750), National Fuel Gas Corporation (R-00038168), Pennsylvania-American Water Company (R-00038304), York Water Company (R-00049165), Valley Energy Company (R-00049345), Wellsboro Electric Company (R-00049313), National Fuel Gas Corporation (R-00049656), T.W. Phillips Gas and Oil Co. (R-00051178), PG Energy (R-00061365), City of Dubois Water Company (Docket No. R-00050671), R-00049165), York Water Company (R-00061322), Emporium Water Company (R-00061297), Pennsylvania-American Water Company (R-00072229),

New Jersey: Dr. Woolridge prepared testimony for the New Jersey Department of the Public Advocate, Division of Rate Counsel: New Jersey-American Water Company (R-91081399J), New Jersey-American Water Company (R-92090908J), and Environmental Disposal Corp. (R-94070319).

Alaska: Dr. Woolridge prepared testimony for Attorney General's Office of Alaska: Golden Heart Utilities, Inc. and College Utilities Corp. (Water Public Utility Service TA-29-118 and Sewer Public Utility Service TA-82-97), Anchorage Water and Wastewater Utility (TA-106-122).

Arizona: Dr. Woolridge prepared testimony for Utility Division staff of the Arizona Corporation Commission, Arizona Public Service Company (Docket No. E-01345A-06-0009)

Hawaii: Dr. Woolridge prepared testimony for the Hawaii Office of the Consumer Advocate: East Honolulu Community Services, Inc. (Docket No. 7718).

Delaware: Dr. Woolridge prepared testimony for the Delaware Division of Public Advocate: Artesian Water Company (R-00-649). Dr. Woolridge prepared testimony for the staff of the Public Service Commission: Artesian Water Company (R-06-158).

Ohio: Dr. Woolridge prepared testimony for the Ohio Office of Consumers' Council: SBC Ohio (Case No. 02-1280-TP-UNC R-00-649), and Cincinnati Gas & Electric Company (Case No. 05-0059-EL-AIR).

Texas: Dr. Woolridge prepared testimony for the Atmos Cities Steering Committee: Mid-Texas Division of Atmos Energy Corp. (Docket No. 9670).

New York: Dr. Woolridge prepared testimony for the County of Nassau in New York State: Long Island Lighting Company (PSC Case No. 942354).

Florida: Dr. Woolridge prepared testimony for the Office of Public Counsel in Florida: Florida Power & Light Co (Docket No. 050045-EL).

Indiana: Dr. Woolridge prepared testimony for the Indiana Office of Utility Consumer Counsel (OUCC) in the following cases: Southern Indiana Gas and Electric Company (IURC Cause No. 43111 and IURC Cause No. 43112).

Oklahoma: Dr. Woolridge prepared testimony for the Oklahoma Industrial Energy Companies (OIEC) in the following cases: Public Service Company of Oklahoma (Cause No. PUD 200600285), Oklahoma Gas & Electric Company (Cause No. PUD 200700012

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

Connecticut: Dr. Woolridge prepared testimony for the Office of Consumer Counsel in Connecticut: United Illuminating (Docket No. 96-03-29), Yankee Gas Company (Docket No. 04-06-01), Southern Connecticut Gas Company (Docket No. 03-03-17), the United Illuminating Company (Docket No. 05-06-04), Connecticut Light and Power Company (Docket No. 05-07-18), Birmingham Utilities, Inc. (Docket No. 06-05-10), Connecticut Water Company (Docket No. 06-07-08), Connecticut Natural Gas Corp. (Docket No. 06-03-04), Aquarion Water Company (Docket No. 07-05-09), Yankee Gas Company (Docket No. 06-12-02), and Connecticut Light and Power Company (Docket No. 07-07-01).

California: Dr. Woolridge prepared testimony for the Office of Ratepayer Advocate in California: San Gabriel Valley Water Company (Docket No. 05-08-021), Pacific Gas & Electric (Docket No. 07-05-008), San Diego Gas & Electric (Docket No. 07-05-007), and Southern California Edison (Docket No. 07-05-003).

South Carolina: Dr. Woolridge prepared testimony for the Office of Regulatory Staff in South Carolina: South Carolina Electric and Gas Company (Docket No. 2005-113-G), Carolina Water Service Co. (Docket No. 2006-87-WS), Tega Cay Water Company (Docket No. 2006-97-WS), United Utilities Companies, Inc. (Docket No. 2006-107-WS).

Missouri: Dr. Woolridge prepared testimony for the Department of Energy in Missouri: Kansas City Power & Light Company (CASE NO. ER-2006-0314). Dr. Woolridge prepared testimony for the Office of Attorney General of Missouri: Union Electric Company (CASE NO. ER-2007-0002)

Kentucky: Dr. Woolridge prepared testimony for the Office of Attorney General in Kentucky: Kentucky-American Water Company (Case No. 2004-00103), Union Heat, Light, and Power Company (Case No. 2004-00042), Kentucky Power Company (Case No. 2005-00341), Union Heat, Light, and Power Company (Case No. 2006-00172), Atmos Energy Corp. (Case No. 2006-00464), Columbia Gas Company (Case No. 2007-00008), Delta Natural Gas Company (Case No. 2007-00089), Kentucky-American Water Company (Case No. 2007-00143)

Washington, D.C.: Dr. Woolridge prepared testimony for the Office of the People's Counsel in the District of Columbia: Potomac Electric Power Company (Formal Case No. 939).

Washington: Dr. Woolridge consulted with trial staff of the Washington Utilities and Transportation Commission on the following cases: Puget Energy Corp. (Docket Nos. UE-011570 and UG-011571); and Avista Corporation (Docket No. UE-011514).

Kansas: Dr. Woolridge prepared testimony on behalf of the Kansas Citizens' Utility Ratepayer Board in the following cases: Western Resources Inc. (Docket No. 01-WSRE-949-GIE), UtiliCorp (Docket No. 02-UTCG701-CIG), and Westar Energy, Inc. (Docket No. 05-WSEE-981-RTS).

FERC: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Federal Energy Regulatory Commission: National Fuel Gas Supply Corporation (RP-92-73-000) and Columbia Gulf Transmission Company (RP97-52-000).

Vermont: Dr. Woolridge prepared testimony for the Department of Public Service in the Central Vermont Public Service (Docket No. 6988) and Vermont Gas Systems, Inc. (Docket No. 7160).

Exhibit JRW-1

**Louisville Gas & Electric Company
Cost of Capital**

**Electric Utility Operations
Capitalization at April 30, 2008**

Capital Source	Capitalization Amount*	Capitalization Ratio*	Cost Rate	Weighted Cost Rate
Short-Term Debt	42,350	2.38%	2.63%	0.06%
Long-Term Debt	803,558	45.14%	5.30%	2.39%
Common Equity	934,171	52.48%	9.90%	5.20%
Total	1,780,079	100.00%		7.65%

**Gas Utility Operations
Capitalization at April 30, 2008**

Capital Source	Capitalization Amount*	Capitalization Ratio*	Cost Rate	Weighted Cost Rate
Short-Term Debt	10,126	2.38%	2.63%	0.06%
Long-Term Debt	192,138	45.14%	5.30%	2.39%
Common Equity	223,369	52.48%	9.20%	4.83%
Total	425,633	100.00%		7.28%

* Capitalization ratios developed on page 1 of Exhibit JRW-3

Exhibit JRW-2
Louisville Gas & Electric Company
Summary Financial Statistics

Panel A
Electric Proxy Group

Company	Operating Revenue (\$mil)	Percent Elec Revenue	Net Plant (\$mil)	Moody's Bond Rating	Long-Term Interest Coverage	Primary Service Area	Common Equity Ratio*	Return on Equity	Market to Book Ratio
ALLETE, Inc. (NYSE-ALE)	849.8	87	1,153.1	NR	6.0	MN, WS	60	13.2	163
Ameren Corporation (NYSE-AEE)	7,671.0	82	15,566.0	Baa2	4.2	IL, MO	46	10.4	129
American Electric Power Co. (NYSE-AEP)	14,078.0	90	31,004.0	Baa1	3.0	11 States	39	14.9	145
Central Vermont Public Serv. Corp. (NYSE-CV)	340.7	100	327.6	NR	4.1	VT	50	8.8	133
Cleco Corporation (NYSE-CNL)	1,042.7	95	1,877.6	Baa1	2.5	LA	49	12.5	149
DPL Inc. (NYSE-DPL)	1,552.1	100	2,793.0	A2	6.2	OH	36	NM	308
Edison International (NYSE-EDX)	13,283.0	80	17,698.0	A2	2.1	CA	43	12.7	173
Empire District Electric Co. (NYSE-EDE)	501.2	87	1,222.3	Baa1	2.2	MO,KS,OK,AR	45	7.0	126
FirstEnergy Corporation (NYSE-FE)	13,242.0	88	16,703.0	Baa2	4.6	OH,PA,NJ	40	13.7	237
FPL Group, Inc. (NYSE-FPL)	15,278.0	76	30,499.0	Aa3	3.2	FL	42	12.1	230
Hawaiian Electric Industries, Inc. (NYSE-HE)	2,712.0	81	2,460.5	Baa2	2.9	HI	29	9.3	165
IDACORP, Inc. (NYSE-IDA)	902.6	100	2,687.8	A3	2.4	ID,OR	46	6.6	114
Northeast Utilities (NYSE-NU)	5,637.9	84	7,452.6	Baa1	2.8	CT,NH,MA	42	7.9	144
NSTAR (NYSE-NST)	3,173.0	78	4,176.9	A1	3.3	MA	40	7.4	207
Pinnacle West Capital Corp. (NYSE-PNW)	3,628.0	86	8,570.9	Baa2	3.0	AZ	52	8.8	94
PNM Resources, Inc. (NYSE-PNM)	1,625.0	100	2,972.7	Baa3	0.0	NM	40	NM	57
Progress Energy Inc. (NYSE-PGN)	8,885.0	100	16,986.0	A2	2.9	NC,SC,FL	46	7.3	134
Southern Company (NYSE-SO)	16,070.1	99	34,562.6	A2	4.1	GA,AL,FL,MS	41	13.7	227
UIL Holdings Corporation (NYSE-UIL)	941.5	100	969.6	Baa2	4.2	CT	44	10.5	186
UnlSource Energy Corporation (NYSE-UNS)	1,424.2	85	2,505.8	Baa2	1.7	AZ	26	6.5	169
Xcel Energy Inc. (NYSE-XEL)	10,298.9	78	16,955.1	A3	2.9	CO,MN,WS,ND,SD,MI	43	9.9	141
Mean	5,863.7	89	10,435.4	Baa1	3.3		43	10.2	163

Data Source: AUS Utility Reports, September, 2008; Service Area and Long-Term Interest Coverage are from Value Line Investment Survey, 2008.

Panel B
Gas Proxy Group

Company	Operating Revenue (\$mil)	Percent Gas Revenue	Net Plant (\$mil)	Moody's Bond Rating	Pre-Tax Interest Coverage	Primary Service Area	Common Equity Ratio*	Return on Equity	Market to Book Ratio
AGL Resources Inc. (NYSE-ATG)	2,510.0	68%	3,563.0	A3	3.0	GA,VA	44	8.3%	1.49
Atmos Energy Corporation (NYSE-ATO)	6,782.7	52%	4,012.9	Baa3	2.8	LA,KY,TX, CO,KS	49	8.4%	1.17
Laclede Group, Inc. (NYSE-LG)	2,117.8	53%	813.1	A3	3.0	MO	57	13.2%	2.12
New Jersey Resources Corp. (NYSE-NJR)	3,244.3	33%	990.4	NR	4.8	NJ,Canada	55	NM	2.27
NICOR Inc. (NYSE-GAS)	3,437.3	84%	2,759.6	A1	5.9	IL	65	14.3%	2.07
Northwest Natural Gas Co. (NYSE-NWN)	1,026.8	98%	1,443.8	A2	4.0	OR,WA	52	11.0%	2.02
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	1,925.1	82%	2,191.6	A3	4.0	NC,SC,TN	51	12.1%	2.21
South Jersey Industries, Inc. (NYSE-SJI)	936.0	62%	956.9	Baa1	3.3	NJ	56	12.6%	2.09
Southwest Gas Corporation (NYSE-SWX)	2,172.0	84%	2,866.6	Baa3	2.3	AZ,NV,CA	46	8.3%	1.24
WGL Holdings, Inc. (NYSE-WGL)	2,564.8	59%	2,168.7	A2	5.7	DC,MD,VA	58	12.2%	1.51
Mean	2,671.7	68%	2,176.7	A3	3.9		53	11.2%	1.82

Data Source: AUS Utility Reports, September, 2008; Service Area, and Pre-Tax Interest Coverage is from Value Line Investment Survey, 2008.

Exhibit JRW-3
Louisville Gas & Electric Company
Capital Structure Ratios

Panel A - LG&E Recommended Capitalization Ratios

Capital	Capitalization Ratios
Short-Term Debt	2.38%
Long-Term Debt	45.14%
Common Equity	52.48%
Total Capital	100.00%

Source: Testimony of Mr. S. Bradford Rives

Panel B - LG&E - OAG Capitalization Ratios
Electric Utility Operations

Short-Term Debt	42,350	2.38%
Long-Term Debt	803,558	45.14%
Common Equity	934,171	52.48%
Total	1,780,079	100.00%

Gas Utility Operations

Short-Term Debt	10,126	2.38%
Long-Term Debt	192,138	45.14%
Common Equity	223,369	52.48%
Total	425,633	100.00%

Exhibit JRW-3
Louisville Gas & Electric Company
Capital Structure Ratios

Company	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Mean
ALLETE, Inc. (NYSE-ALE)	62.0	62.0	63.0	63.0	63.0	60.0	60.0	60.0	60.0	57.0	61.0
Ameren Corporation (NYSE-AEE)	49.0	49.0	49.0	47.0	47.0	47.0	47.0	47.0	46.0	46.0	47.4
American Electric Power Co. (NYSE-AEP)	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
Central Vermont Public Serv. Corp. (NYSE-CV)	59.0	59.0	59.0	60.0	60.0	51.0	51.0	51.0	50.0	50.0	55.0
Cleco Corporation (NYSE-CNL)	56.0	56.0	56.0	54.0	54.0	51.0	51.0	51.0	49.0	49.0	52.7
DPL Inc.(NYSE-DPL)	34.0	34.0	34.0	35.0	35.0	35.0	36.0	36.0	36.0	39.0	35.4
Edison International (NYSE-EIX)	44.0	44.0	44.0	44.0	44.0	43.0	43.0	43.0	43.0	42.0	43.4
Empire District Electric Co. (NYSE-EDE)	45.0	45.0	45.0	48.0	48.0	45.0	45.0	45.0	45.0	44.0	45.5
FirstEnergy Corporation (NYSE-FE)	43.0	43.0	43.0	42.0	42.0	41.0	41.0	41.0	40.0	40.0	41.6
FPL Group, Inc. (NYSE-FPL)	43.0	43.0	43.0	44.0	44.0	43.0	43.0	43.0	42.0	42.0	43.0
Hawaiian Electric Industries, Inc. (NYSE-HE)	27.0	27.0	27.0	27.0	27.0	29.0	29.0	29.0	29.0	38.0	28.9
IDACORP, Inc. (NYSE-IDA)	48.0	48.0	48.0	47.0	47.0	46.0	46.0	46.0	46.0	46.0	46.8
Northeast Utilities (NYSE-NU)	43.0	43.0	43.0	43.0	43.0	42.0	42.0	42.0	42.0	40.0	42.3
NSTAR (NYSE-NST)	41.0	41.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.2
Pinnacle West Capital Corp. (NYSE-PNW)	50.0	50.0	50.0	49.0	49.0	49.0	49.0	49.0	52.0	52.0	49.9
PNM Resources, Inc. (NYSE-PNM)	47.0	47.0	47.0	47.0	47.0	47.0	40.0	40.0	40.0	41.0	44.3
Progress Energy Inc. (NYSE-PGN)	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	43.0	45.7
Southern Company (NYSE-SO)	42.0	42.0	42.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.3
UIL Holdings Corporation (NYSE-UIL)	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
UniSource Energy Corporation (NYSE-UNS)	28.0	28.0	28.0	29.0	29.0	27.0	27.0	27.0	26.0	26.0	27.5
Xcel Energy Inc. (NYSE-XEL)	43.0	43.0	43.0	44.0	44.0	43.0	43.0	43.0	43.0	42.0	43.1
Mean	44.4	44.4	44.4	44.4	44.4	43.3	43.0	43.0	42.8	42.9	43.7

Data Source: AUS Utility Reports

Panel B
Gas Proxy Group

Company	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Mean
AGL Resources Inc. (NYSE-ATG)	43.0	43.0	42.0	42.0	42.0	47.0	47.0	47.0	44.0	44.0	44.1
Atmos Energy Corporation (NYSE-ATO)	46.0	46.0	47.0	47.0	47.0	50.0	50.0	50.0	49.0	49.0	48.1
Laclede Group, Inc. (NYSE-LG)	41.0	41.0	40.0	40.0	40.0	40.0	48.0	48.0	57.0	57.0	45.2
New Jersey Resources Corp. (NYSE-NJR)	50.0	50.0	49.0	49.0	49.0	55.0	55.0	55.0	55.0	51.0	51.8
NICOR Inc. (NYSE-GAS)	58.0	58.0	58.0	52.0	52.0	65.0	65.0	65.0	65.0	66.0	60.4
Northwest Natural Gas Co. (NYSE-NWN)	48.0	48.0	48.0	47.0	47.0	52.0	52.0	52.0	52.0	52.0	49.8
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	48.0	46.0	46.0	45.0	45.0	45.0	51.0	51.0	51.0	48.0	47.6
South Jersey Industries, Inc. (NYSE-SJI)	48.0	48.0	48.0	50.0	50.0	56.0	56.0	56.0	56.0	52.0	52.0
Southwest Gas Corporation (NYSE-SWX)	43.0	43.0	43.0	43.0	43.0	46.0	46.0	46.0	46.0	46.0	44.5
WGL Holdings, Inc. (NYSE-WGL)	54.0	54.0	51.0	51.0	51.0	58.0	58.0	58.0	58.0	60.0	55.3
Mean	47.9	47.7	47.2	46.6	46.6	51.4	52.8	52.8	53.3	52.5	49.9

Data Source: AUS Utility Reports

Exhibit JRW-4
Long-Term 'A' Rated Public Utility Bonds

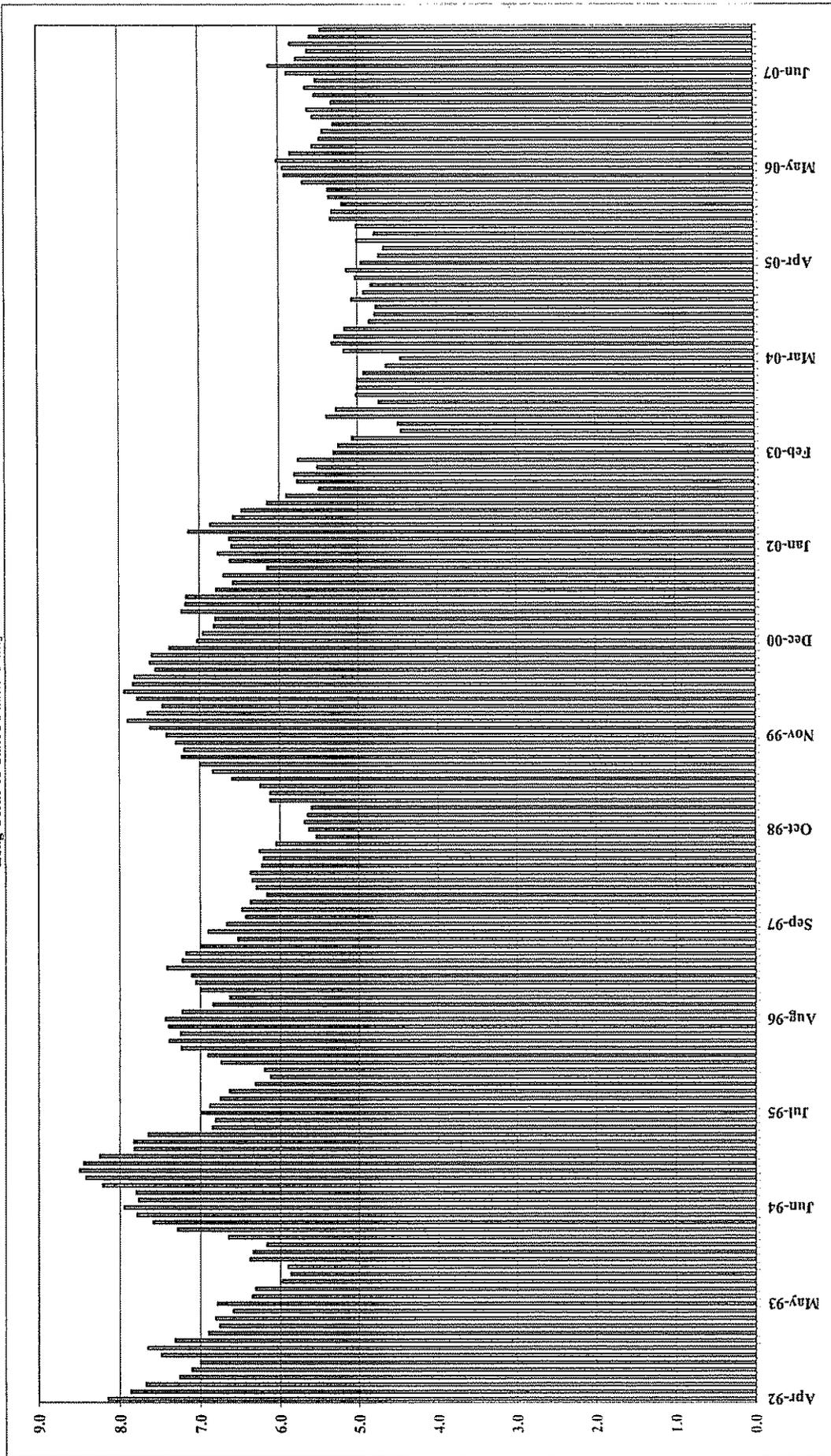
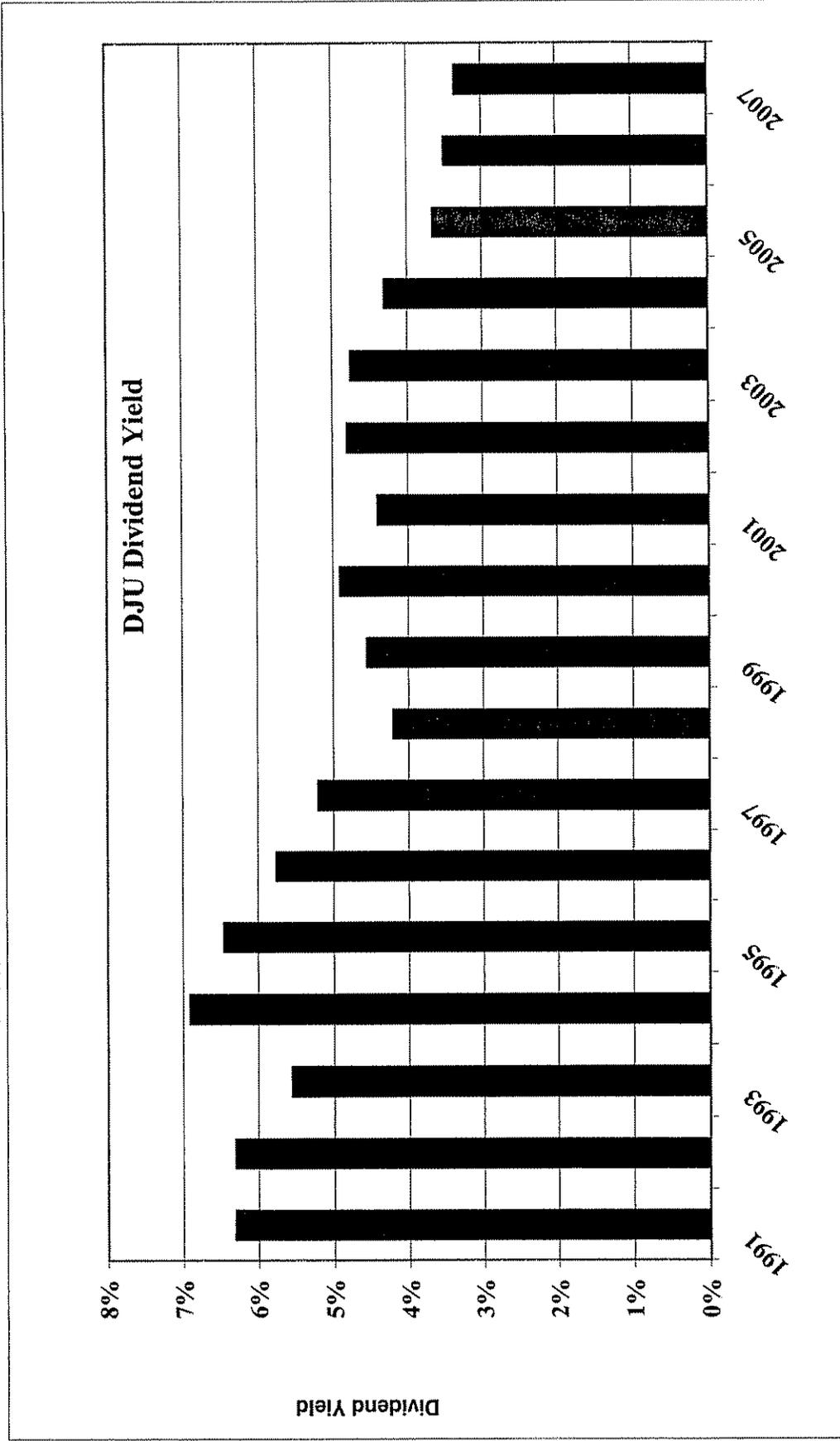
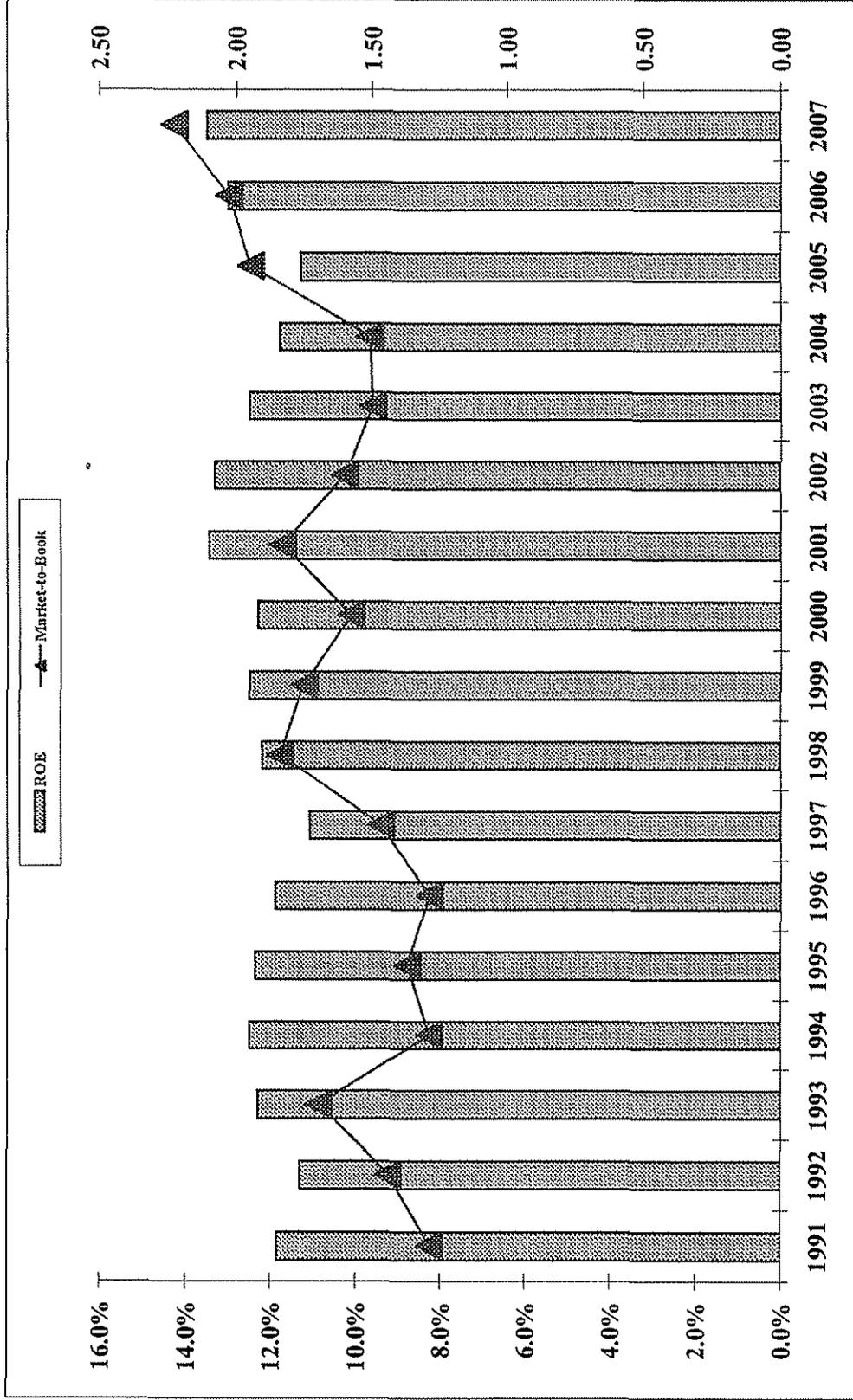


Exhibit JRW-4
Dow Jones Utilities Dividend Yield



Data Source: Value Line Investment Survey

Exhibit JRW-4
 Dow Jones Utilities - Market to Book and ROE



Data Source: Value Line Investment Survey

Exhibit JRW-5

Industry Average Betas

Industry Name	Number of Firms	Beta	Industry Name	Number of Firms	Beta	Industry Name	Number of Firms	Beta
Semiconductor	138	2.59	Telecom. Services	152	1.34	Utility (Foreign)	6	1.01
Semiconductor Equip	16	2.51	Electronics	179	1.32	Petroleum (Producing)	186	1.00
Wireless Networking	74	2.20	Investment Co.(Foreign)	15	1.31	Environmental	89	1.00
E-Commerce	56	2.08	Educational Services	39	1.27	Grocery	15	0.99
Entertainment Tech	38	2.06	Retail (Special Lines)	164	1.26	Home Appliance	11	0.95
Telecom. Equipment	124	1.98	Hotel/Gaming	75	1.25	Insurance (Life)	40	0.94
Steel (Integrated)	14	1.97	Heavy Construction	12	1.25	Electric Util. (Central)	25	0.93
Internet	266	1.97	Retail Building Supply	9	1.23	Paper/Forest Products	39	0.93
Manuf. Housing/RV	18	1.92	Railroad	16	1.23	Restaurant	75	0.93
Power	58	1.87	Industrial Services	196	1.22	Natural Gas (Div.)	31	0.93
Computers/Peripherals	144	1.86	Newspaper	18	1.21	Healthcare Information	38	0.91
Drug	368	1.78	Aerospace/Defense	69	1.19	Property Management	12	0.91
Coal	18	1.71	Metal Fabricating	37	1.19	R.E.I.T.	147	0.90
Steel (General)	26	1.71	Machinery	126	1.19	Household Products	28	0.89
Securities Brokerage	31	1.66	Chemical (Diversified)	37	1.16	Insurance (Prop/Cas.)	87	0.89
Precision Instrument	103	1.66	Financial Svcs. (Div.)	294	1.14	Beverage	44	0.89
Homebuilding	36	1.64	Office Equip/Supplies	25	1.13	Electric Utility (West)	17	0.88
Advertising	40	1.60	Packaging & Container	35	1.12	Maritime	52	0.87
Retail Automotive	16	1.58	Precious Metals	84	1.11	Apparel	57	0.87
Cable TV	23	1.56	Retail Store	42	1.11	Bank (Midwest)	38	0.85
Computer Software/Svcs	376	1.56	Furn/Home Furnishings	39	1.10	Toiletries/Cosmetics	21	0.85
Auto & Truck	28	1.54	Oilfield Svcs/Equip.	113	1.10	Electric Utility (East)	27	0.84
Recreation	73	1.54	Medical Services	178	1.10	Canadian Energy	13	0.80
Entertainment	93	1.53	Foreign Electronics	10	1.08	Food Wholesalers	19	0.79
Chemical (Basic)	19	1.52	Building Materials	49	1.07	Water Utility	16	0.78
Biotechnology	103	1.51	Pharmacy Services	19	1.07	Natural Gas Utility	26	0.78
Shoe	20	1.47	Chemical (Specialty)	90	1.06	Food Processing	123	0.77
Auto Parts	56	1.45	Metals & Mining (Div.)	78	1.05	Oil/Gas Distribution	15	0.72
Medical Supplies	274	1.43	Information Services	38	1.05	Investment Co.	18	0.71
Air Transport	49	1.40	Trucking	32	1.04	Tobacco	11	0.70
Human Resources	35	1.38	Diversified Co.	107	1.03	Bank (Canadian)	8	0.67
Publishing	40	1.35	Petroleum (Integrated)	26	1.02	Bank	504	0.63
Electrical Equipment	86	1.35	Reinsurance	11	1.01	Thrift	234	0.59
						Total/Average	7364	1.24

Data Source: <http://pages.stern.nyu.edu/~adamodar/>

Exhibit JRW-6**Louisville Gas & Electric Company
Discounted Cash Flow Analysis****Panel A
Electric Proxy Group**

Dividend Yield*	4.3%
Adjustment Factor	<u>1.0275</u>
Adjusted Dividend Yield	4.4%
Growth Rate**	<u>5.5%</u>
Equity Cost Rate	9.9%

**Panel B
Gas Proxy Group**

Dividend Yield*	3.6%
Adjustment Factor	<u>1.0275</u>
Adjusted Dividend Yield	3.7%
Growth Rate**	<u>5.5%</u>
Equity Cost Rate	9.2%

* Page 2 of Exhibit JRW-6

** Based on data provided on pages 3, 4, and
5 of Exhibit JRW-6

Exhibit JRW-6

Louisville Gas & Electric Company
Monthly Dividend Yields
May-October 2008

Panel A
Electric Proxy Group

Company	May	June	July	Aug	Sep	Oct	Mean
ALLETE, Inc. (NYSE-ALE)	4.1%	4.0%	3.8%	4.2%	4.0%	3.8%	4.0%
Ameren Corporation (NYSE-ABE)	5.5%	5.5%	5.9%	6.3%	6.0%	6.1%	5.9%
American Electric Power Co. (NYSE-AEP)	3.7%	3.8%	3.9%	4.2%	4.3%	4.3%	4.0%
Central Vermont Public Serv. Corp. (NYSE-CV)	3.7%	4.1%	4.7%	4.4%	3.7%	3.7%	4.1%
Cleco Corporation (NYSE-CNL)	3.7%	3.6%	3.7%	3.8%	3.5%	3.4%	3.6%
DPL Inc.(NYSE-DPL)	4.0%	3.9%	3.9%	4.1%	4.5%	4.2%	4.1%
Edison International (NYSE-EIX)	2.3%	2.3%	2.4%	2.4%	2.7%	3.0%	2.5%
Empire District Electric Co. (NYSE-EDE)	5.9%	6.1%	6.4%	6.7%	5.9%	5.6%	6.1%
FirstEnergy Corporation (NYSE-FE)	2.9%	2.9%	2.8%	2.9%	3.1%	3.2%	3.0%
FPL Group, Inc. (NYSE-FPL)	2.7%	2.7%	2.7%	2.7%	2.9%	3.2%	2.8%
Hawaiian Electric Industries, Inc. (NYSE-HE)	5.0%	4.7%	4.7%	5.2%	4.9%	4.4%	4.8%
IDACORP, Inc. (NYSE-IDA)	3.7%	3.8%	3.8%	4.1%	3.9%	3.8%	3.9%
Northeast Utilities (NYSE-NU)	3.0%	3.0%	3.2%	3.5%	3.1%	3.2%	3.2%
NSTAR (NYSE-NST)	4.4%	4.2%	4.1%	4.4%	4.2%	3.9%	4.2%
Pinnacle West Capital Corp. (NYSE-PNW)	5.8%	6.2%	6.5%	6.7%	6.0%	6.0%	6.2%
NM Resources, Inc. (NYSE-PNM)	6.7%	6.5%	6.8%	8.0%	4.2%	4.2%	6.1%
Progress Energy Inc. (NYSE-PGN)	5.8%	5.8%	5.8%	6.0%	5.6%	5.5%	5.8%
Southern Company (NYSE-SO)	4.4%	4.5%	4.8%	4.8%	4.5%	4.4%	4.6%
UIL Holdings Corporation (NYSE-UIL)	5.6%	5.5%	5.4%	5.9%	5.1%	4.9%	5.4%
UniSource Energy Corporation (NYSE-UNS)	3.6%	2.9%	2.8%	3.2%	2.9%	3.1%	3.1%
Xcel Energy Inc. (NYSE-XEL)	4.4%	4.3%	4.6%	4.8%	4.6%	4.4%	4.5%
Mean	4.3%	4.3%	4.4%	4.7%	4.3%	4.2%	4.4%

Source: AUS Utility Reports , monthly issues

Panel B
Gas Proxy Group

Company	May	June	July	Aug	Sep	Oct	Mean
AGL Resources Inc. (NYSE-ATG)	4.7%	4.6%	4.9%	5.0%	5.1%	5.0%	4.9%
Atmos Energy Corporation (NYSE-ATO)	4.8%	4.6%	4.8%	5.1%	4.7%	4.6%	4.8%
Laclede Group, Inc. (NYSE-LG)	4.1%	3.6%	3.7%	3.9%	3.2%	3.0%	3.6%
New Jersey Resources Corp. (NYSE-NJR)	3.4%	3.3%	3.3%	3.5%	3.1%	2.9%	3.3%
NICOR Inc. (NYSE-GAS)	5.2%	4.7%	4.3%	4.8%	4.2%	3.7%	4.5%
Northwest Natural Gas Co. (NYSE-NWN)	3.3%	3.4%	3.2%	3.4%	3.1%	2.8%	3.2%
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	3.8%	3.9%	3.8%	4.2%	3.7%	3.1%	3.7%
South Jersey Industries, Inc. (NYSE-SJI)	2.9%	2.8%	2.8%	2.9%	3.1%	2.8%	2.9%
Southwest Gas Corporation (NYSE-SWX)	3.0%	2.9%	2.9%	3.2%	3.0%	2.8%	3.0%
WGL Holdings, Inc. (NYSE-WGL)	4.2%	4.0%	4.0%	4.2%	4.3%	4.0%	4.1%
Mean	3.9%	3.8%	3.8%	4.0%	3.8%	3.5%	3.8%

Data Source: AUS Utility Reports , monthly issues

Exhibit JRW-6

Louisville Gas & Electric Company
DCF Equity Cost Growth Rate Measures
Value Line Historic Growth Rates

Panel A
Electric Proxy Group

Company	Value Line Historic Growth					
	Past 10 Years			Past 5 Years		
	Earnings	Dividends	Book Value	Earnings	Dividends	Book Value
ALLETE, Inc. (NYSE-ALE)	NA	NA	NA	NA	NA	NA
Ameren Corporation (NYSE-AEE)	1.0%	0.0%	3.5%	-0.5%	0.0%	5.5%
American Electric Power Co. (NYSE-AEP)	-1.0%	-4.5%	0.0%	3.0%	-9.0%	0.0%
Central Vermont Public Serv. Corp. (NYSE-CV)	-2.5%	1.0%	1.0%	-2.5%	1.0%	2.0%
Cleco Corporation (NYSE-CNL)	2.5%	1.5%	6.5%	-2.0%	0.5%	7.0%
DPL Inc. (NYSE-DPL)	1.0%	1.5%	-0.5%	-1.0%	1.0%	2.5%
Edison International (NYSE-EIX)	7.0%	1.0%	4.5%	0.0%	0.0%	17.5%
Empire District Electric Co. (NYSE-EDE)	-1.0%	0.0%	2.0%	2.0%	0.0%	2.0%
FirstEnergy Corporation (NYSE-FE)	6.0%	2.0%	5.5%	6.0%	4.5%	4.5%
FPL Group, Inc. (NYSE-FPL)	6.0%	5.0%	6.5%	6.5%	6.5%	7.5%
Hawaiian Electric Industries, Inc. (NYSE-HE)	-0.5%	0.5%	1.5%	-3.0%	0.0%	2.0%
IDACORP, Inc. (NYSE-IDA)	-1.0%	-4.5%	3.5%	-7.0%	-8.5%	2.5%
Northeast Utilities (NYSE-NU)	11.0%	-4.5%	0.5%	8.5%	10.0%	2.5%
NSTAR (NYSE-NST)	4.5%	3.0%	3.5%	3.5%	3.5%	4.0%
Pinnacle West Capital Corp. (NYSE-PNW)	1.0%	7.0%	4.5%	-2.5%	5.5%	3.5%
PNM Resources, Inc. (NYSE-PNM)	2.0%	14.5%	5.5%	-5.0%	9.5%	5.0%
Progress Energy Inc. (NYSE-PGN)	0.0%	3.0%	6.0%	-4.5%	2.5%	3.0%
Southern Company (NYSE-SO)	3.0%	2.0%	1.0%	3.5%	2.5%	3.0%
UIL Holdings Corporation (NYSE-UIL)	-2.0%	0.0%	0.5%	-6.0%	0.0%	-1.0%
UniSource Energy Corporation (NYSE-UNS)	-5.5%	0.0%	17.5%	3.0%	15.5%	8.5%
Xcel Energy Inc. (NYSE-XEL)	-3.5%	-4.5%	-1.0%	-2.0%	-8.5%	-1.5%
Mean	1.4%	1.2%	3.6%	0.0%	1.8%	4.0%
Median	1.0%	1.0%	3.5%	-0.8%	1.0%	3.0%
Data Source: Value Line Investment Survey, 2008.				Average of Mean and Median F 1.7%		

Panel B
Gas Proxy Group

Company	Value Line Historic Growth					
	Past 10 Years			Past 5 Years		
	Earnings	Dividends	Book Value	Earnings	Dividends	Book Value
AGL Resources Inc. (NYSE-ATG)	7.0%	2.5%	6.5%	15.0%	4.0%	10.5%
Atmos Energy Corporation (NYSE-ATO)	3.5%	2.5%	7.0%	7.5%	1.5%	9.0%
Laclede Group, Inc. (NYSE-LG)	3.0%	1.0%	3.0%	9.5%	1.0%	4.5%
New Jersey Resources Corp. (NYSE-NJR)	6.5%	3.5%	7.5%	6.0%	4.0%	10.0%
NICOR Inc. (NYSE-GAS)	1.5%	3.5%	3.0%	-1.5%	1.0%	4.0%
Northwest Natural Gas Co. (NYSE-NWN)	3.0%	1.5%	3.5%	6.5%	2.0%	3.5%
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	5.0%	5.0%	6.0%	6.0%	4.5%	6.5%
South Jersey Industries, Inc. (NYSE-SJI)	9.5%	2.5%	7.5%	12.5%	4.5%	12.5%
Southwest Gas Corporation (NYSE-SWX)	12.0%	0.0%	3.0%	6.0%	0.0%	3.5%
WGL Holdings, Inc. (NYSE-WGL)	2.0%	1.5%	4.0%	5.0%	1.5%	3.5%
Mean	5.3%	2.4%	5.1%	7.3%	2.4%	6.8%
Median	4.3%	2.5%	5.0%	6.3%	1.8%	5.5%
Data Source: Value Line Investment Survey, 2008.				Average of Mean and Median F 4.5%		

Exhibit JRW-6

Louisville Gas & Electric Company
DCF Equity Cost Growth Rate Measures
Value Line Projected Growth Rates

Panel A
Electric Proxy Group

Company	Value Line			Value Line		
	Projected Growth			Internal Growth		
	Est'd. '05-'07 to '11-'13			Return on	Retention	Internal
	Earnings	Dividends	Book Value	Equity	Rate	Growth
ALLETE, Inc. (NYSE-ALE)	2.5%	5.5%	6.5%	9.5%	36.0%	3.4%
Ameren Corporation (NYSE-AEE)	3.5%	0.0%	3.0%	9.5%	28.0%	2.7%
American Electric Power Co. (NYSE-AEP)	7.5%	8.0%	6.5%	12.0%	42.0%	5.0%
Central Vermont Public Serv. Corp. (NYSE-CV)	7.5%	0.0%	3.5%	7.5%	43.0%	3.2%
Cleco Corporation (NYSE-CNL)	10.5%	9.5%	6.0%	11.0%	37.0%	4.1%
DPL Inc.(NYSE-DPL)	11.0%	5.0%	9.0%	19.0%	43.0%	8.2%
Edison International (NYSE-EIX)	5.0%	7.0%	9.0%	11.5%	61.0%	7.0%
Empire District Electric Co. (NYSE-EDE)	10.0%	1.5%	3.5%	10.5%	29.0%	3.0%
FirstEnergy Corporation (NYSE-FE)	11.0%	8.5%	7.5%	15.5%	55.0%	8.5%
FPL Group, Inc. (NYSE-FPL)	9.5%	7.5%	8.5%	13.0%	54.0%	7.0%
Hawaiian Electric Industries, Inc. (NYSE-HE)	7.5%	1.0%	2.5%	11.5%	33.0%	3.8%
IDACORP, Inc. (NYSE-IDA)	2.0%	0.0%	2.0%	7.5%	47.0%	3.5%
Northeast Utilities (NYSE-NU)	11.5%	6.0%	5.5%	8.5%	52.0%	4.4%
NSTAR (NYSE-NST)	7.5%	7.0%	5.5%	14.5%	38.0%	5.5%
Pinnacle West Capital Corp. (NYSE-PNW)	2.0%	2.0%	2.0%	8.0%	27.0%	2.2%
PNM Resources, Inc. (NYSE-PNM)	-1.0%	1.5%	0.0%	6.0%	30.0%	1.8%
Progress Energy Inc. (NYSE-PGN)	5.0%	1.0%	1.5%	9.5%	25.0%	2.4%
Southern Company (NYSE-SO)	5.5%	4.5%	6.0%	14.0%	32.0%	4.5%
UIL Holdings Corporation (NYSE-UIL)	4.5%	0.0%	1.0%	10.5%	20.0%	2.1%
UniSource Energy Corporation (NYSE-UNS)	2.0%	6.5%	3.5%	7.5%	32.0%	2.4%
Xcel Energy Inc. (NYSE-XEL)	7.5%	3.0%	4.5%	11.0%	47.0%	5.2%
Mean	6.3%	4.0%	4.6%	10.8%	38.6%	4.2%
Median	7.5%	4.5%	4.5%	10.5%	37.0%	3.9%
Average of Mean and Median Figures =		5.2%			Average =	4.0%

Data Source: Value Line Investment Survey, 2008

Panel B
Gas Proxy Group

Company	Value Line			Value Line		
	Projected Growth			Internal Growth		
	Est'd. '05-'07 to '11-'13			Return on	Retention	Internal
	Earnings	Dividends	Book Value	Equity	Rate	Growth
AGL Resources Inc. (NYSE-ATG)	3.0%	4.0%	1.5%	14.0%	41.0%	5.7%
Atmos Energy Corporation (NYSE-ATO)	4.5%	2.0%	3.5%	9.5%	42.0%	4.0%
Laclede Group, Inc. (NYSE-LG)	4.5%	2.5%	5.5%	11.5%	44.0%	5.1%
New Jersey Resources Corp. (NYSE-NJR)	8.5%	6.0%	9.0%	12.5%	52.0%	6.5%
NICOR Inc. (NYSE-GAS)	5.0%	0.0%	5.0%	14.0%	49.0%	6.9%
Northwest Natural Gas Co. (NYSE-NWN)	7.0%	5.5%	3.5%	11.0%	44.0%	4.8%
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	7.0%	4.0%	4.0%	13.0%	40.0%	5.2%
South Jersey Industries, Inc. (NYSE-SJI)	6.0%	5.5%	3.5%	16.5%	58.0%	9.6%
Southwest Gas Corporation (NYSE-SWX)	7.5%	4.0%	4.0%	9.5%	69.0%	6.6%
WGL Holdings, Inc. (NYSE-WGL)	3.5%	2.5%	5.0%	10.5%	39.0%	4.1%
Mean	5.7%	3.6%	4.5%	12.2%	47.8%	5.8%
Median	5.5%	4.0%	4.0%	12.0%	44.0%	5.5%
Average of Mean and Median Figures =		4.5%			Average =	5.7%

Data Source: Value Line Investment Survey, 2008

Exhibit JRW-6

Louisville Gas & Electric Company
DCF Equity Cost Growth Rate Measures
Analysts Projected EPS Growth Rate Estimates

Panel A
Electric Proxy Group

Company	Sym	Bloomberg		Zack's		Average
		Mean	# Estimates	Mean	# Estimates	
ALLETE, Inc. (NYSE-ALE)	ALE	7.50%	2	5.00%	1	6.25%
Ameren Corporation (NYSE-AEE)	AEE	6.50%	2	5.00%	5	5.75%
American Electric Power Co. (NYSE-AEP)	AEP	4.95%	4	6.25%	4	5.60%
Central Vermont Public Serv. Corp. (NYSE-CV)	CV	-	0	-	-	-
Cleco Corporation (NYSE-CNL)	CNL	14.14%	2	14.00%	1	14.07%
DPL Inc.(NYSE-DPL)	DPL	13.95%	2	10.67%	3	12.31%
Edison International (NYSE-EIX)	EIX	8.25%	5	8.00%	3	8.13%
Empire District Electric Co. (NYSE-EDE)	EDE	34.00%	1	-	-	34.00%
FirstEnergy Corporation (NYSE-FE)	FE	9.00%	3	8.33%	3	8.67%
FPL Group, Inc. (NYSE-FPL)	FPL	9.83%	7	9.97%	6	9.90%
Hawaiian Electric Industries, Inc. (NYSE-HE)	HE	2.75%	2	4.17%	3	3.46%
IDACORP, Inc. (NYSE-IDA)	IDA	6.00%	2	6.00%	2	6.00%
Northeast Utilities (NYSE-NU)	NU	7.02%	5	10.00%	3	8.51%
NSTAR (NYSE-NST)	NST	6.33%	3	6.75%	4	6.54%
Pinnacle West Capital Corp. (NYSE-PNW)	PNW	4.67%	3	6.67%	3	5.67%
PNM Resources, Inc. (NYSE-PNM)	PNM	10.16%	5	6.00%	4	8.08%
Progress Energy Inc. (NYSE-PGN)	PGN	5.02%	5	5.00%	6	5.01%
Southern Company (NYSE-SO)	SO	5.50%	4	5.00%	5	5.25%
UIL Holdings Corporation (NYSE-UIL)	UIL	6.00%	1	6.00%	1	6.00%
UniSource Energy Corporation (NYSE-UNS)	UNS	-	0	-	-	-
Xcel Energy Inc. (NYSE-XEL)	XEL	6.00%	4	6.00%	4	6.00%
Median		6.50%	3.0	6.13%	3.0	6.25%

Source: Bloomberg October 20, 2008

Panel B
Gas Proxy Group

Company	Sym	Bloomberg		Zack's		Average
		Mean	# Estimates	Mean	# Estimates	
AGL Resources	ATG	5.38%	4	4.75%	4	5.1%
Atmos Energy	ATO	4.83%	6	5.43%	7	5.1%
Laclede Group, Inc.	LG	-	-	10.00%	1	10.0%
New Jersey Resources	NJR	6.33%	3	8.00%	2	7.2%
Nicor Inc.	GAS	4.38%	4	5.75%	4	5.1%
Northwest Natural Gas Company	NWN	4.13%	4	6.50%	4	5.3%
Piedmont Natural Gas, Inc.	PNY	5.00%	1	5.60%	5	5.3%
South Jersey Industries	SJI	7.33%	3	7.75%	4	7.5%
Southwest Gas	SWX	5.33%	3	8.00%	2	6.7%
WGL Holdings, Inc.	WGL	4.00%	1	7.50%	2	5.8%
Median		5.00%	3.2	7.00%	3.5	5.53%

Source: Bloomberg October 20, 2008

Exhibit JRW-7

Capital Asset Pricing Model

Panel A

Electric Proxy Group

Risk-Free Interest Rate	4.50%
Beta*	0.82
<u>Ex Ante Equity Risk Premium**</u>	<u>4.56%</u>
CAPM Cost of Equity	8.2%

Panel B

Gas Proxy Group

Risk-Free Interest Rate	4.50%
Beta*	0.82
<u>Ex Ante Equity Risk Premium**</u>	<u>4.56%</u>
CAPM Cost of Equity	8.2%

* See page 2 of Exhibit JRW-7

** See page 3 of Exhibit JRW-7

Exhibit JRW-7

**Louisville Gas & Electric Company
Beta**

**Panel A
Electric Proxy Group**

Company	Beta
ALLETE, Inc. (NYSE-ALE)	0.90
Ameren Corporation (NYSE-AEE)	0.80
American Electric Power Co. (NYSE-AEP)	0.85
Central Vermont Public Serv. Corp. (NYSE-CV)	1.05
Cleco Corporation (NYSE-CNL)	1.00
DPL Inc.(NYSE-DPL)	0.80
Edison International (NYSE-EIX)	0.90
Empire District Electric Co. (NYSE-EDE)	0.85
FirstEnergy Corporation (NYSE-FE)	0.75
FPL Group, Inc. (NYSE-FPL)	0.80
Hawaiian Electric Industries, Inc. (NYSE-HE)	0.75
IDACORP, Inc. (NYSE-IDA)	0.90
Northeast Utilities (NYSE-NU)	0.75
NSTAR (NYSE-NST)	0.80
Pinnacle West Capital Corp. (NYSE-PNW)	0.80
PNM Resources, Inc. (NYSE-PNM)	0.85
Progress Energy Inc. (NYSE-PGN)	0.75
Southern Company (NYSE-SO)	0.65
UIL Holdings Corporation (NYSE-UIL)	0.80
UniSource Energy Corporation (NYSE-UNS)	0.75
Xcel Energy Inc. (NYSE-XEL)	0.80
Mean	0.82

Data Source: *Value Line Investment Survey, 2008*

**Panel B
Gas Proxy Group**

Company	Beta
AGL Resources Inc. (NYSE-ATG)	0.85
Atmos Energy Corporation (NYSE-ATO)	0.80
Laclede Group, Inc. (NYSE-LG)	0.80
New Jersey Resources Corp. (NYSE-NJR)	0.80
NICOR Inc. (NYSE-GAS)	0.90
Northwest Natural Gas Co. (NYSE-NWN)	0.75
Piedmont Natural Gas Co., Inc. (NYSE-PNY)	0.80
South Jersey Industries, Inc. (NYSE-SJI)	0.80
Southwest Gas Corporation (NYSE-SWX)	0.80
WGL Holdings, Inc. (NYSE-WGL)	0.85
Mean	0.82

Data Source: *Value Line Investment Survey, 2008*

Exhibit JRW-7

Louisville Gas & Electric Company
 Capital Asset Pricing Model
 Equity Risk Premium

Category	Study Authors	Publication Date	Time Period Of Study	Methodology	Return Measure	Range Low	Range High	Midpoint of Range	Mean	Average
Historical Risk Premium	Ibbotson	2008	1926-2007	Historical Stock Returns - Bond Returns	Arithmetic				6.50%	
					Geometric				4.90%	
					Geometric				4.50%	
	Eatic	2008	1900-2007	Historical Stock Returns - Bond Returns	Arithmetic				7.00%	
					Geometric				5.50%	
					Arithmetic				6.70%	
					Geometric				5.10%	
					Arithmetic				6.10%	
					Geometric				4.60%	
					Arithmetic				5.50%	
Ex Ante Models (Puzzle Research)	Goyal & Welch	2006	1872-2004	Historical Stock Returns - Bond Returns	Arithmetic				4.77%	
	AVERAGE									
	Claus Thomas	2001	1985-1998	Abnormal Earnings Model					3.00%	
	Arnett and Bernstein	2002	1810-2001	Fundamentals - Div Yld + Growth					2.40%	
	Constantinides	2002	1872-2000	Historical Returns & Fundamentals - P/D & P/E					6.90%	
	Cornell	1999	1926-1997	Historical Returns & Fundamentals GDP/Earnings		3.50%	5.50%	4.50%	4.50%	
	Easton, Taylor, et al	2002	1981-1998	Residual Income Model					5.30%	
	Fama French	2002	1951-2000	Fundamental DCF with EPS and DPS Growth		2.55%	4.32%		3.44%	
	Harris & Manston	2001	1982-1998	Fundamental DCF with Analysts' EPS Growth					7.14%	
	Best & Byrne	2001							3.75%	
McKinsey	2002	1962-2002	Fundamental (P/E, D/P, & Earnings Growth)	Geometric	3.50%	4.00%		2.50%		
Siegel	2005	1802-2001	Historical Earnings Yield					4.75%		
Grabowski	2006	1926-2005	Historical and Projected		3.50%	6.00%	4.75%	4.75%		
Mahou & McCurdy	2006	1885-2003	Historical Excess Returns, Structural Breaks,		4.02%	5.10%	4.56%	4.56%		
Bostock	2004	1960-2002	Bond Yields, Credit Risk, and Income Volatility		3.90%	1.36%	2.60%	2.60%		
Bakshi & Chen	2005	1982-1998	Fundamentals - Interest Rates					7.31%		
Donaldson, Kamstra, & Kramer	2006	1952-2004	Fundamental, Dividend yld., Returns, & Volatility		3.00%	4.00%	3.50%	3.50%		
Campbell	2008	1982-2007	Historical & Projections (D/P & Earnings Growth)		4.10%	5.40%		4.75%		
Best & Byrne	2001	Projection	Fundamentals - Div Yld + Growth					2.00%		
Fernandez	2007	Projection	Required Equity Risk Premium					4.00%		
DeLong & Maign	2008	Projection	Earnings Yield - TIPS					3.22%		
Damodaran	2008	Projection	Fundamentals - Implied from FCF to Equity Model					4.37%		
Social Security										
Office of Chief Actuary										
John Campbell	2001	1900-1995	Historical & Projections (D/P & Earnings Growth)	Arithmetic	3.00%	4.00%	3.50%	3.50%		
			Projected for 75 Years	Geometric	1.50%	2.50%	2.00%	2.00%		
Peter Diamond	2001	Projected for 75 Years	Fundamentals (D/P, GDP Growth)		3.00%	4.80%	3.90%	3.90%		
John Shoven	2001	Projected for 75 Years	Fundamentals (D/P, P/E, GDP Growth)		3.00%	3.50%	3.25%	3.25%		
AVERAGE										
4.03%										
Surveys	Survey of Financial Forecasters	2008	10-Year Projection	About 50 Financial Forecasters					1.96%	
	Duke - CFO Magazine Survey	2008	10-Year Projection	Approximately 500 CFOs					3.99%	
	Wallch - Academics	2008	30-Year Projection	Random Academics		5.00%	5.74%		5.37%	
	AVERAGE									
3.77%										
Building Block	Ibbotson and Chen	2008	1926-2007	Historical Supply Model (D/P & Earnings Growth)	Arithmetic				6.23%	
					Geometric				4.24%	
	Woolridge		2008	Current Supply Model (D/P & Earnings Growth)					4.54%	
AVERAGE										
4.89%										
OVERALL AVERAGE										
4.56%										

Exhibit JRW-7

Louisville Gas & Electric Company

Survey of Professional Forecasters
Philadelphia Federal Reserve Bank
Long-Term Forecasts

Table Seven
LONG-TERM (10 YEAR) FORECASTS

<u>SERIES: CPI INFLATION RATE</u>		<u>SERIES: REAL GDP GROWTH RATE</u>	
STATISTIC		STATISTIC	
MINIMUM	1.600	MINIMUM	2.200
LOWER QUARTILE	2.200	LOWER QUARTILE	2.500
MEDIAN	2.500	MEDIAN	2.750
UPPER QUARTILE	2.750	UPPER QUARTILE	2.800
MAXIMUM	4.200	MAXIMUM	3.100
MEAN	2.520	MEAN	2.700
STD. DEV.	0.520	STD. DEV.	0.230
N	45	N	43
MISSING	5	MISSING	7
<u>SERIES: PRODUCTIVITY GROWTH</u>		<u>SERIES: STOCK RETURNS (S&P 500)</u>	
STATISTIC		STATISTIC	
MINIMUM	0.900	MINIMUM	2.700
LOWER QUARTILE	1.800	LOWER QUARTILE	6.000
MEDIAN	2.000	MEDIAN	6.500
UPPER QUARTILE	2.200	UPPER QUARTILE	8.000
MAXIMUM	3.000	MAXIMUM	9.000
MEAN	2.000	MEAN	6.800
STD. DEV.	0.390	STD. DEV.	1.300
N	39	N	31
MISSING	11	MISSING	19
<u>SERIES: BOND RETURNS (10-YEAR)</u>		<u>SERIES: BILL RETURNS (3-MONTH)</u>	
STATISTIC		STATISTIC	
MINIMUM	3.200	MINIMUM	2.400
LOWER QUARTILE	4.500	LOWER QUARTILE	3.000
MEDIAN	5.000	MEDIAN	4.000
UPPER QUARTILE	5.200	UPPER QUARTILE	4.250
MAXIMUM	5.800	MAXIMUM	5.300
MEAN	4.840	MEAN	3.840
STD. DEV.	0.590	STD. DEV.	0.680
N	38	N	38
MISSING	12	MISSING	12

Source: Philadelphia Federal Reserve Bank, Survey of Professional Forecasters, February 12, 2008.

<http://www.phil.frb.org/files/spf/spfq107.pdf>

Exhibit JRW-7

Louisville Gas & Electric Company

CAPM

Real S&P 500 EPS Growth Rate

Year	S&P 500 EPS	Annual Inflation CPI	Inflation Adjustment Factor	Real S&P 500 EPS	
1960	3.10	1.48		3.10	
1961	3.37	0.07	1.01	3.35	
1962	3.67	1.22	1.02	3.59	
1963	4.13	1.65	1.04	3.99	
1964	4.76	1.19	1.05	4.55	
1965	5.30	1.92	1.07	4.97	
1966	5.41	3.35	1.10	4.90	
1967	5.46	3.04	1.14	4.80	
1968	5.72	4.72	1.19	4.81	
1969	6.10	6.11	1.26	4.83	10-Year
1970	5.51	5.49	1.34	4.13	2.89%
1971	5.57	3.36	1.38	4.04	
1972	6.17	3.41	1.43	4.33	
1973	7.96	8.80	1.55	5.13	
1974	9.35	12.20	1.74	5.37	
1975	7.71	7.01	1.86	4.14	
1976	9.75	4.81	1.95	4.99	
1977	10.87	6.77	2.08	5.22	
1978	11.64	9.03	2.27	5.13	
1979	14.55	13.31	2.57	5.66	10-Year
1980	14.99	12.40	2.89	5.18	2.30%
1981	15.18	8.94	3.15	4.82	
1982	13.82	3.87	3.27	4.23	
1983	13.29	3.80	3.40	3.91	
1984	16.84	3.95	3.53	4.77	
1985	15.68	3.77	3.66	4.28	
1986	14.43	1.13	3.70	3.90	
1987	16.04	4.41	3.87	4.15	
1988	22.77	4.42	4.04	5.64	
1989	24.03	4.65	4.22	5.69	10-Year
1990	21.73	6.11	4.48	4.85	-0.65%
1991	19.10	3.06	4.62	4.14	
1992	18.13	2.90	4.75	3.81	
1993	19.82	2.75	4.88	4.06	
1994	27.05	2.67	5.01	5.40	
1995	35.35	2.54	5.14	6.88	
1996	35.78	3.32	5.31	6.74	
1997	39.56	1.70	5.40	7.33	
1998	38.23	1.61	5.48	6.97	
1999	45.17	2.68	5.63	8.02	10-Year
2000	52.00	3.39	5.82	8.93	6.29%
2001	44.23	1.55	5.92	7.48	
2002	47.24	2.38	6.06	7.80	
2003	54.15	1.88	6.17	8.77	
2004	67.01	3.26	6.37	10.51	5-Year
2005	68.32	3.42	6.60	10.35	3.00%
2006	81.96	2.54	6.77	12.11	
2007	87.51	4.08	7.04	12.43	
Data Source: http://pages.stern.nyu.edu/~adamodar/				Real EPS Growth	3.0%

Exhibit JRW-8
Louisville Gas & Electric Company
Financial Performance Indicators - Dr. Avera's Non-Utility and Utility Proxy Groups

Non-Utility Proxy Group					Utility Proxy Group				
Company Name	Return on Common Equity	Price To Book Value	Fixed Asset Turnover	Common Equity Ratio	Company Name	Return on Common Equity	Price To Book Value	Fixed Asset Turnover	Common Equity Ratio
3M Company	34.86	3.47	3.72	74.50	ALLETE	11.79	1.55	0.76	64.40
Abbott Labs	24.91	5.01	3.45	65.20	Alliant Energy	11.26	1.37	0.73	61.90
Aflac Inc.	18.37	2.45		85.70	Consol Edison	10.43	1.32	0.66	53.10
Allergan Inc.	15.38	3.46	5.74	70.20	Constellation Energy	14.66	0.86	2.17	52.40
Allstate Corp.	21.21	0.80		79.50	Dominion Resources	14.86	2.39	0.73	41.10
Anheuser-Busch	67.11	14.35	1.89	25.60	Duke Energy	7.18	0.99	0.41	69.10
Automatic Data Proc	19.83	3.68	10.78	99.20	Entergy Corp	14.42	2.23	0.55	43.90
Bank of America	10.39	0.78		41.40	Exelon Corp	26.89	3.59	0.78	45.70
Bard (C.R.)	21.99	4.42	6.39	92.50	Integrus Energy	5.49	1.12	2.31	58.30
Becton Dickinson	22.42	4.04	2.55	82.00	MDU Resources	12.80	1.48	1.16	68.40
Brown-Forman 'B'	25.50	4.25	5.15	80.50	PG&E Corp.	11.66	1.55	0.56	50.40
Coca-Cola	27.50	4.95	3.40	86.90	Public Serv. Enterprise	18.07	2.17	0.97	45.50
Colgate-Palmolive	86.54	17.39	4.57	37.90	SCANA Corp	10.81	1.40	0.61	49.70
Commerce Bancshs	13.52	2.08		72.40	Sempra Energy	13.51	1.36	0.77	63.70
Fortune Brands	14.09	1.09	5.04	59.00	Vectren Corp.	11.59	1.48	0.90	49.80
Gannett Co	11.38	0.28	2.84	68.80	Wisconsin Energy	10.85	1.56	0.55	49.20
Gen'l Electric	19.44	1.74	2.22	26.60	Xcel Energy Inc.	9.07	1.23	0.60	49.40
Gen'l Mills	19.76	3.55	4.39	58.80	Average	12.67	1.63	0.90	53.88
Genuine Parts	18.63	2.15	25.45	91.60					
Heinz (H.J.)	44.75	7.29	4.78	28.50					
Hormel Foods	15.78	2.17	6.41	84.30					
Johnson & Johnson	27.89	4.22	4.31	86.00					
Kimberly-Clark	35.63	4.99	2.26	54.30					
Kraft Foods	10.64	1.66	3.46	67.90					
Lilly (Eli)	28.27	2.83	2.17	74.80					
Lockheed Martin	29.60	3.88	9.69	69.50					
Medtronic Inc.	25.87	4.04	6.09	66.50					
Meredith Corp	20.26	1.12	7.84	69.00					
NIKE Inc. 'B'	22.16	3.75	9.85	94.70					
Northrop Grumman	9.81	0.91	6.79	80.60					
PepsiCo Inc.	32.22	5.31	3.52	80.20					
Pfizer Inc.	23.51	1.80	3.08	89.80					
Procter & Gamble	17.46	2.90	4.05	73.20					
Sigma-Aldrich	19.24	3.87	2.99	88.60					
Sysco Corp.	32.44	4.58	12.98	63.30					
Tootsie Roll Ind.	8.08	2.02	2.45	98.80					
Torchmark Corp	15.70	0.98		82.10					
United Parcel Serv.	35.86	4.42	2.81	61.90					
Walgreen Co	18.38	2.19	6.56	100.00					
Wal-Mart Stores	19.94	3.34	3.86	65.90					
Washington Federal	10.24	1.14		100.00					
Washington Post	8.33	0.97	3.26	89.30					
Weis Markets	7.05	1.26	4.64	100.00					
Average	23.53	3.53	5.44	73.66					

Data Source: Value Line Investment Analyzer

THE WALL STREET JOURNAL.

Study Suggests Bias in Analysts' Rosy Forecasts

By ANDREW EDWARDS

March 21, 2008, Page C6

Despite an economy teetering on the brink of a recession -- if not already in one -- analysts are still painting a rosy picture of earnings growth, according to a study done by Penn State's Smeal College of Business.

The report questions analysts' impartiality five years after then-New York Attorney General Eliot Spitzer forced analysts to pay \$1.5 billion in damages after finding evidence of bias.

"Wall Street analysts basically do two things: recommend stocks to buy and forecast earnings," said J. Randall Woolridge, professor of finance. "Previous studies suggest their stock recommendations do not perform well, and now we show that their long-term earnings-per-share growth-rate forecasts are excessive and upwardly biased."

The report, which examined analysts' long-term (three to five years) and one-year per-share earnings expectations from 1984 through 2006, found that companies' long-term earnings growth surpassed analysts' expectations in only two instances, and those came right after recessions.

Over the entire time period, analysts' long-term forecast earnings-per-share growth averaged 14.7%, compared with actual growth of 9.1%. One-year per-share earnings expectations were slightly more accurate: The average forecast was for 13.8% growth and the average actual growth rate was 9.8%.

"A significant factor in the upward bias in long-term earnings-rate forecasts is the reluctance of analysts to forecast profit declines," Mr. Woolridge said. The study found that nearly one-third of all companies experienced profit drops over successive three-to-five-year periods, but analysts projected drops less than 1% of the time.

The study's authors said, "Analysts are rewarded for biased forecasts by their employers, who want them to hype stocks so that the brokerage house can garner trading commissions and win underwriting deals."

They also concluded that analysts are under pressure to hype stocks to generate trading commissions, and they often don't follow stocks they don't like.

Write to Andrew Edwards at andrew.edwards@dowjones.com

Growth Rates
GNP, S&P 500 Price, EPS, and DPS

	GDP	S&P 500	Earnings	Dividends	
1960	526.4	58.11	3.10	1.98	
1961	544.7	71.55	3.37	2.04	
1962	585.6	63.1	3.67	2.15	
1963	617.7	75.02	4.13	2.35	
1964	663.6	84.75	4.76	2.58	
1965	719.1	92.43	5.30	2.83	
1966	787.8	80.33	5.41	2.88	
1967	832.6	96.47	5.46	2.98	
1968	910.0	103.86	5.72	3.04	
1969	984.6	92.06	6.10	3.24	
1970	1038.5	92.15	5.51	3.19	
1971	1127.1	102.09	5.57	3.16	
1972	1238.3	118.05	6.17	3.19	
1973	1382.7	97.55	7.96	3.61	
1974	1500.0	68.56	9.35	3.72	
1975	1638.3	90.19	7.71	3.73	
1976	1825.3	107.46	9.75	4.22	
1977	2030.9	95.1	10.87	4.86	
1978	2294.7	96.11	11.64	5.18	
1979	2563.3	107.94	14.55	5.97	
1980	2789.5	135.76	14.99	6.44	
1981	3128.4	122.55	15.18	6.83	
1982	3255.0	140.64	13.82	6.93	
1983	3536.7	164.93	13.29	7.12	
1984	3933.2	167.24	16.84	7.83	
1985	4220.3	211.28	15.68	8.20	
1986	4462.8	242.17	14.43	8.19	
1987	4739.5	247.08	16.04	9.17	
1988	5103.8	277.72	22.77	10.22	
1989	5484.4	353.4	24.03	11.73	
1990	5803.1	330.22	21.73	12.35	
1991	5995.9	417.09	19.10	12.97	
1992	6337.7	435.71	18.13	12.64	
1993	6657.4	466.45	19.82	12.69	
1994	7072.2	459.27	27.05	13.36	
1995	7397.7	615.93	35.35	14.17	
1996	7816.9	740.74	35.78	14.89	
1997	8304.3	970.43	39.56	15.52	
1998	8747.0	1229.23	38.23	16.20	
1999	9268.4	1469.25	45.17	16.71	
2000	9817.0	1320.28	52.00	16.27	
2001	10128.0	1148.09	44.23	15.74	
2002	10469.6	879.82	47.24	16.08	
2003	10960.8	1111.91	54.15	17.88	
2004	11685.9	1211.92	67.01	19.41	
2005	12433.9	1248.29	68.32	22.38	Average
2006	13194.7	1418.3	81.96	25.05	
2007	13843.0	1468.36	87.51	27.73	
Growth	7.20%	7.11%	7.36%	5.77%	6.86%

Data Sources: GDPA - <http://research.stlouisfed.org/fred2/categories/106>
S&P 500, EPS and DPS - <http://pages.stern.nyu.edu/~adamodar/>

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY, INC. FOR AN) CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC AND GAS) C/W
BASE RATES) CASE NO. 2007-00564

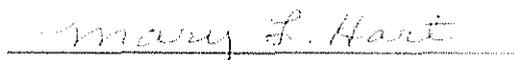
AFFIDAVIT OF DR. J. RANDALL WOOLRIDGE

Commonwealth of)
Pennsylvania)
)
)

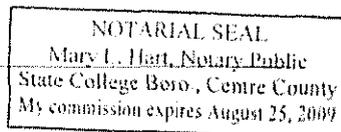
Dr. J. Randall Woolridge, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony, and the Schedules and Appendix attached thereto constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct. Further affiant saith not.


Dr. J. Randall Woolridge

SUBSCRIBED AND SWORN to before me this 30 day of October, 2008.


NOTARY PUBLIC

My Commission Expires: _____



**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

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APPLICATION OF LOUISVILLE GAS AND)	
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BASE RATES)	CASE NO. 2007-00564

**Direct Testimony of
Michael J. Majoros, Jr.**

**on Behalf of
the Office of the Attorney General**

October 28, 2008

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1 **I. Introduction**

2 **Q. State your name, position, and business address.**

3 A. My name is Michael J. Majoros, Jr. I am Vice President of Snavelly King Majoros
4 O'Connor & Lee, Inc. ("Snavelly King"), located at 1111 14th Street, N.W., Suite
5 300, Washington, D.C. 20005.

6 **Q. Describe Snavelly King.**

7 A. Snavelly King is an economic consulting firm founded in 1970 to conduct research
8 on a consulting basis into the rates, revenues, costs, and economic performance of
9 regulated firms and industries. Snavelly King represents the interests of
10 government agencies, businesses, and individuals who are consumers of telecom,
11 public utility, and transportation services.

12 We have a professional staff of twelve economists, accountants, engineers
13 and cost analysts. Most of our work involves the development, preparation, and
14 presentation of expert witness testimony before Federal and state regulatory
15 agencies. Over the course of our 37-year history, members of the firm have
16 participated in more than 1,000 proceedings before almost all of the state
17 commissions and all Federal commissions that regulate utilities or transportation
18 industries.

19 **Q. Have you prepared a summary of your qualifications and experience?**

20 A. Yes, Appendix A is a summary of my qualifications and experience. Appendix B
21 contains a tabulation of my appearances as an expert witness before state and
22 Federal regulatory agencies.

1 **Q. For whom are you appearing in this proceeding?**

2 A. I am appearing on behalf of the Attorney General of the Commonwealth of
3 Kentucky (“AG”).

4 **II. Subject of Testimony**

5 **Q. What is the subject of your testimony?**

6 A. My testimony addresses depreciation, specifically the Companies’ regulatory
7 liabilities for cost of removal.

8 **Q. Are you the same Michael J. Majoros, Jr. who submitted testimony in Case
9 Nos. 2007-00564 and 2007-00565, Louisville Gas and Electric Company and
10 Kentucky Utilities’ (“LG&E,” “KU,” or, collectively “the Companies”)
11 recent depreciation study filings?**

12 A. Yes, I am. In those cases I reviewed the Companies’ depreciation proposals and
13 submitted my own recommended depreciation rates. My recommended rates
14 have been incorporated by Attorney General witness Robert Henkes in his
15 depreciation adjustment in the instant cases.

16 **III. Cost of Removal Regulatory Liability**

17 **Q. What is the cost of removal regulatory liability?**

18 A. The cost of removal regulatory liability is the amount of money the Companies
19 have collected over time for cost of removal, less any amount expended for that
20 purpose. The Financial Accounting Standards Board’s (FASB) Statement of
21 Financial Accounting Standard No. 143 (“SFAS No. 143”) requires these amounts
22 to be shown as a regulatory liability for GAAP purposes. For ratemaking
23 purposes the amounts are included in accumulated depreciation. Unless the state

1 regulatory body takes action, these amounts are not specifically recognized as
2 regulatory liabilities for ratemaking purposes.

3 **Q. Did you discuss the Companies' cost of removal regulatory liabilities in your**
4 **testimony in Case Nos. 2007-00564 and 2007-00565?**

5 A. Yes. I discussed the liabilities briefly on pages 18 and 19 of my direct testimony
6 in those cases, and noted that as of December 31, 2007, KU and LG&E had
7 reported \$291.6 million and \$241 million cost of removal regulatory liabilities,
8 respectively.¹ I also noted the following growth of these regulatory liabilities:

9 These regulatory liabilities have increased by \$56.5 million (KU)
10 and \$33.1 million (LG&E), from the amounts I highlighted in Case
11 Nos. 2003-00433 and 2003-00434. In other words, just since their
12 last rate cases, the Companies have collected almost \$90 million
13 more from ratepayers than they have spent on actual cost of
14 removal.²

15
16 **Q. Did you make any recommendations in those cases regarding the cost of**
17 **removal regulatory liabilities?**

18 A. No, I did not. Although I normally would make recommendations regarding the
19 cost of removal regulatory liability, in Case Nos. 2007-00564 and 2007-00565 I
20 chose to focus instead on the Companies' unnecessary switch to the ELG
21 procedure and the inclusion of future inflation in their cost of removal estimates.

22 **Q. What do you normally recommend regarding the cost of removal regulatory**
23 **liability?**

¹ Note that since the Companies became subsidiaries of E.ON, they are no longer required to file reports with the SEC. The most recent SEC financial reports available are as of September 30, 2006. 2007 amounts provided in responses to AG 1-100 (LG&E), 1-93 and 2-6 (KU). KU amount is KY jurisdictional.

² Majoros Direct Testimony, Case Nos. 2007-00564 and 2007-00565, page 19. Footnote deleted.

**Direct Testimony of
Michael J. Majoros, Jr.
Case Nos. 2008-00251 and 2008-00252**

1 A. In most cases I recommend that this liability be reclassified from accumulated
2 depreciation to Account 254 - Other Regulatory Liabilities for regulatory
3 accounting, reporting and ratemaking purposes. Based on the policy decisions of
4 some consumer advocate clients, I have also recommended that the regulatory
5 liability be returned to ratepayers through a specific amortization period.

6 **Q. Have you made similar recommendations before the Kentucky Public
7 Service Commission (“KPSC”)?**

8 A. Yes. In KU and LG&E’s most recent rate cases, Case Nos. Nos. 2003-00433 and
9 2003-00434 I recommended that the existing cost of removal reserve be
10 amortized back to ratepayers in the post-hearing brief.³ The Commission rejected
11 my recommendation.⁴ More recently, I proposed the establishment of a
12 regulatory liability for ratemaking purposes in Case No. 2005-00042 regarding
13 Union Light, Heat and Power Company. The proposal was not accepted.⁵

14 **Q. Why have you brought up the issue in this case?**

15 A. I have brought the issue up because Staff explicitly asked the Companies about it
16 during discovery. Staff Third Data Request Question No. 21(c) (LG&E) and No.
17 22(c) (KU) asked the Company to “describe all favorable and unfavorable
18 consequences to [LG&E/KU] if the Commission were to require reclassification
19 of [LG&E’s/KU’s] asset removal costs from accumulated depreciation to a

³ Orders, Case Nos. 2003-00433, pages 29-30 and 2003-00434, page 25.

⁴ Orders, Case Nos. 2003-00433 and 2003-00434, pages 32 and 27, respectively.

⁵ Case No. 2005-00042, Order issued December 22, 2005, p. 39.

1 regulatory liability account for regulatory reporting purposes.”⁶ I have quoted
2 LG&E’s response below. KU provided a similar response.

3 If the Commission were to require the reclassification of LG&E’s
4 costs of removal from accumulated depreciation to a regulatory
5 liability account for regulatory reporting purposes, a favorable
6 consequence would be that it would create consistency between
7 GAAP reporting and regulatory reporting. An unfavorable
8 consequence would be the inconsistency that would be created
9 with prior years’ regulatory reporting. There would be no impact
10 on the ratemaking treatment of the costs of removal, regardless of
11 where they are recorded, since a basic concept behind including
12 cost of removal as a component of depreciation rates is to prevent
13 generational inequities. No other consequences have been
14 identified by LG&E.⁷

15
16 **Q. What is your opinion of the Companies’ responses?**

17 A. The responses indicate that even LG&E and KU agree there are no real
18 consequences of reclassifying the cost of removal regulatory liabilities from
19 accumulated depreciation to a regulatory liability account for ratemaking
20 purposes. The alleged consequence of “inconsistency with prior reporting” does
21 not have merit in this case. After all, the requirement to reclassify the amounts
22 for GAAP purposes only came into being relatively recently, with the
23 implementation of SFAS No. 143 in 2003. Because the FERC declined to require
24 the reclassification for regulatory purposes an inconsistency developed between
25 the GAAP and regulatory books. Furthermore, the Companies obviously do not
26 shy away from accounting changes, as evident by their proposed unnecessary
27 switch from ALG to ELG for computing depreciation rates – a procedure change

⁶ Staff 3rd Data Request, Qs. 21(c) (LG&E) and 22(c) (KU). Note that KU was initially asked the question in Staff’s 2nd Data Request, Q. 98(c) but did not address the question to Staff’s satisfaction.

⁷ Staff 3rd Data Request, Q. 21(c) (LG&E).

1 that would cause a \$34.6 million increase to depreciation expense, all other things
2 being equal.⁸

3 **Q. Do you see any favorable consequences of the reclassification that the**
4 **Companies failed to mention?**

5 A. Yes. As I mentioned earlier, because E.ON does not file 10-K reports with the
6 SEC, these amounts are no longer publicly available. Absent a specific request
7 for the amount in a proceeding such as a rate case, the Commission will not know
8 how much the Companies have collected for cost of removal over and above what
9 they have spent. Reclassification would allow the Commission to track these
10 amounts. Reclassification would also protect ratepayer interests in these amounts.
11 Without that protection, current and future ratepayers face the strong possibility of
12 losing substantial prepaid funds they have submitted to the Company for future
13 cost of removal. LG&E, KU and virtually all other utilities, consider amounts in
14 accumulated depreciation, even excessive amounts, to be *their* money, i.e. capital
15 recovery with no refund obligation. It is certainly fair and reasonable for any
16 Commission to recognize excessive cost of removal collections as a refundable
17 regulatory liability until the utility spends them on their intended purpose.

18 **Q. Have any other Commissions recognized non-legal asset retirement**
19 **obligations as regulatory liabilities?**

20 A. Yes. Recently, in Application No. 04-12-014, involving Southern California
21 Edison Company, the California Public Utilities Commission specifically

⁸ Majoros Direct Testimony, Case Nos. 2007-00564 and 2007-00565, page 12.

1 recognized that Company's non-legal asset retirement obligations collections as a
2 regulatory liability.⁹

3 **IV. Recommendation**

4 **Q. What do you recommend?**

5 A: I recommend that the Commission specifically recognize LG&E and KU's
6 regulatory liabilities for cost of removal as reported on their GAAP statements as
7 regulatory liabilities for ratemaking purposes. The Companies should be required
8 to report these amounts and reclassify them from accumulated depreciation to
9 Account 254-Other Regulatory Liabilities for regulatory accounting, reporting
10 and ratemaking purposes. This will result in equivalent GAAP and regulatory
11 accumulated depreciation and regulatory liability amounts for "non-legal" cost of
12 removal.¹⁰

13 **Q. Does this change have any revenue requirement effect?**

14 A. No, it is merely a revenue neutral reclassification of a rate base reduction from
15 one account to another.

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

17 A. Yes, it does.

⁹ Southern California Edison 2006 GRC, Application No. 04-12-014, Decision 06-05-016, issued May 11, 2006, p. 204:16.7.1.

¹⁰ The phrase "non-legal" emanates from the FERC's Order No. 631. It is used to distinguish legally required asset retirement obligations from those which lead to the cost of removal regulatory liability discussed above. Importantly, the phrase "non-legal" should not be construed to imply any "illegality."

Experience

Snively King Majoros O'Connor & Lee, Inc.

Vice President and Treasurer (1988 to Present)
Senior Consultant (1981-1987)

Mr. Majoros provides consultation specializing in accounting, financial, and management issues. He has testified as an expert witness or negotiated on behalf of clients in more than one hundred thirty regulatory federal and state regulatory proceedings involving telephone, electric, gas, water, and sewerage companies. His testimony has encompassed a wide array of complex issues including taxation, divestiture accounting, revenue requirements, rate base, nuclear decommissioning, plant lives, and capital recovery. Mr. Majoros has also provided consultation to the U.S. Department of Justice and appeared before the U.S. EPA and the Maryland State Legislature on matters regarding the accounting and plant life effects of electric plant modifications and the financial capacity of public utilities to finance environmental controls. He has estimated economic damages suffered by black farmers in discrimination suits.

Van Scoyoc & Wiskup, Inc., Consultant (1978-1981)

Mr. Majoros conducted and assisted in various management and regulatory consulting projects in the public utility field, including preparation of electric system load projections for a group of municipally and cooperatively owned electric systems; preparation of a system of accounts and reporting of gas and oil pipelines to be used by a state regulatory commission; accounting system analysis and design for rate proceedings involving electric, gas, and telephone utilities. Mr. Majoros provided onsite management accounting and controllership assistance to a municipal electric and water utility. Mr. Majoros also assisted in an antitrust proceeding involving a major electric utility. He submitted expert testimony in FERC Docket No. RP79-12 (El Paso Natural Gas Company), and he co-authored a study entitled Analysis of Staff Study on Comprehensive Tax Normalization that was submitted to FERC in Docket No. RM 80-42.

Handling Equipment Sales Company, Inc. ***Controller/Treasurer (1976-1978)***

Mr. Majoros' responsibilities included financial management, general accounting and reporting, and income taxes.

Ernst & Ernst, Auditor (1973-1976)

Mr. Majoros was a member of the audit staff where his responsibilities included auditing, supervision, business systems analysis, report preparation, and corporate income taxes.

University of Baltimore - (1971-1973)

Mr. Majoros was a full-time student in the School of Business.

During this period Mr. Majoros worked consistently on a part-time basis in the following positions: Assistant Legislative Auditor – State of Maryland, Staff Accountant – Robert M. Carney & Co., CPA's, Staff Accountant – Naron & Wegad, CPA's, Credit Clerk – Montgomery Wards.

Central Savings Bank, (1969-1971)

Mr. Majoros was an Assistant Branch Manager at the time he left the bank to attend college as a full-time student. During his tenure at the bank, Mr. Majoros gained experience in each department of the bank. In addition, he attended night school at the University of Baltimore.

Education

University of Baltimore, School of Business, B.S. –
Concentration in Accounting

Professional Affiliations

American Institute of Certified Public Accountants
Maryland Association of C.P.A.s
Society of Depreciation Professionals

Publications, Papers, and Panels

"Analysis of Staff Study on Comprehensive Tax Normalization," FERC Docket No. RM 80-42, 1980.

"Telephone Company Deferred Taxes and Investment Tax Credits – A Capital Loss for Ratepayers," Public Utility Fortnightly, September 27, 1984.

"The Use of Customer Discount Rates in Revenue Requirement Comparisons," Proceedings of the 25th Annual Iowa State Regulatory Conference, 1986.

"The Regulatory Dilemma Created By Emerging Revenue Streams of Independent Telephone Companies," Proceedings of NARUC 101st Annual Convention and Regulatory Symposium, 1989.

"BOC Depreciation Issues in the States," National Association of State Utility Consumer Advocates, 1990 Mid-Year Meeting, 1990.

"Current Issues in Capital Recovery" 30th Annual Iowa State Regulatory Conference, 1991.

"Impaired Assets Under SFAS No. 121," National Association of State Utility consumer Advocates, 1996 Mid-Year Meeting, 1996.

"What's 'Sunk' Ain't Stranded: Why Excessive Utility Depreciation is Avoidable," with James Campbell, Public Utilities Fortnightly, April 1, 1999.

"Local Exchange Carrier Depreciation Reserve Percents," with Richard B. Lee, Journal of the Society of Depreciation Professionals, Volume 10, Number 1, 2000-2001.

"Rolling Over Ratepayers," Public Utilities Fortnightly, Volume 143, Number 11, November, 2005.

Michael J. Majoros, Jr.

<u>Date</u>	<u>Jurisdiction / Agency</u>	<u>Docket</u>	<u>Utility</u>
<u>Federal Courts</u>			
2005	US District Court, Northern District of AL, Northwestern Division <u>55/56/57/</u>	CV 01-B-403-NW	Tennessee Valley Authority

<u>State Legislatures</u>			
2006	Maryland General Assembly <u>61/</u>	SB154	Maryland Healthy Air Act
2006	Maryland House of Delegates <u>62/</u>	HB189	Maryland Healthy Air Act

<u>Federal Regulatory Agencies</u>			
1979	FERC-US <u>19/</u>	RP79-12	El Paso Natural Gas Co.
1980	FERC-US <u>19/</u>	RM80-42	Generic Tax Normalization
1996	CRTC-Canada <u>30/</u>	97-9	All Canadian Telecoms
1997	CRTC-Canada <u>31/</u>	97-11	All Canadian Telecoms
1999	FCC <u>32/</u>	98-137 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-91 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-177 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-45 (Ex Parte)	All LECs
2000	EPA <u>35/</u>	CAA-00-6	Tennessee Valley Authority
2003	FERC <u>48/</u>	RM02-7	All Utilities
2003	FCC <u>52/</u>	03-173	All LECs
2003	FERC <u>53/</u>	ER03-409-000, ER03-666-000	Pacific Gas and Electric Co.

<u>State Regulatory Agencies</u>			
1982	Massachusetts <u>17/</u>	DPU 557/558	Western Mass Elec. Co.
1982	Illinois <u>16/</u>	ICC81-8115	Illinois Bell Telephone Co.
1983	Maryland <u>8/</u>	7574-Direct	Baltimore Gas & Electric Co.
1983	Maryland <u>8/</u>	7574-Surrebuttall	Baltimore Gas & Electric Co.
1983	Connecticut <u>15/</u>	810911	Woodlake Water Co.
1983	New Jersey <u>1/</u>	815-458	New Jersey Bell Tel. Co.
1983	New Jersey <u>14/</u>	8011-827	Atlantic City Sewerage Co.
1984	Dist. Of Columbia <u>7/</u>	785	Potomac Electric Power Co.
1984	Maryland <u>8/</u>	7689	Washington Gas Light Co.
1984	Dist. Of Columbia <u>7/</u>	798	C&P Tel. Co.
1984	Pennsylvania <u>13/</u>	R-832316	Bell Telephone Co. of PA
1984	New Mexico <u>12/</u>	1032	Mt. States Tel. & Telegraph
1984	Idaho <u>18/</u>	U-1000-70	Mt. States Tel. & Telegraph
1984	Colorado <u>11/</u>	1655	Mt. States Tel. & Telegraph

Michael J. Majoros, Jr.

1984	Dist. Of Columbia <u>7/</u>	813	Potomac Electric Power Co.
1984	Pennsylvania <u>3/</u>	R842621-R842625	Western Pa. Water Co.
1985	Maryland <u>8/</u>	7743	Potomac Edison Co.
1985	New Jersey <u>1/</u>	848-856	New Jersey Bell Tel. Co.
1985	Maryland <u>8/</u>	7851	C&P Tel. Co.
1985	California <u>10/</u>	I-85-03-78	Pacific Bell Telephone Co.
1985	Pennsylvania <u>3/</u>	R-850174	Phila. Suburban Water Co.
1985	Pennsylvania <u>3/</u>	R850178	Pennsylvania Gas & Water Co.
1985	Pennsylvania <u>3/</u>	R-850299	General Tel. Co. of PA
1986	Maryland <u>8/</u>	7899	Delmarva Power & Light Co.
1986	Maryland <u>8/</u>	7754	Chesapeake Utilities Corp.
1986	Pennsylvania <u>3/</u>	R-850268	York Water Co.
1986	Maryland <u>8/</u>	7953	Southern Md. Electric Corp.
1986	Idaho <u>9/</u>	U-1002-59	General Tel. Of the Northwest
1986	Maryland <u>8/</u>	7973	Baltimore Gas & Electric Co.
1987	Pennsylvania <u>3/</u>	R-860350	Dauphin Cons. Water Supply
1987	Pennsylvania <u>3/</u>	C-860923	Bell Telephone Co. of PA
1987	Iowa <u>6/</u>	DPU-86-2	Northwestern Bell Tel. Co.
1987	Dist. Of Columbia <u>7/</u>	842	Washington Gas Light Co.
1988	Florida <u>4/</u>	880069-TL	Southern Bell Telephone
1988	Iowa <u>6/</u>	RPU-87-3	Iowa Public Service Company
1988	Iowa <u>6/</u>	RPU-87-6	Northwestern Bell Tel. Co.
1988	Dist. Of Columbia <u>7/</u>	869	Potomac Electric Power Co.
1989	Iowa <u>6/</u>	RPU-88-6	Northwestern Bell Tel. Co.
1990	New Jersey <u>1/</u>	1487-88	Morris City Transfer Station
1990	New Jersey <u>5/</u>	WR 88-80967	Toms River Water Company
1990	Florida <u>4/</u>	890256-TL	Southern Bell Company
1990	New Jersey <u>1/</u>	ER89110912J	Jersey Central Power & Light
1990	New Jersey <u>1/</u>	WR90050497J	Elizabethtown Water Co.
1991	Pennsylvania <u>3/</u>	P900465	United Tel. Co. of Pa.
1991	West Virginia <u>2/</u>	90-564-T-D	C&P Telephone Co.
1991	New Jersey <u>1/</u>	90080792J	Hackensack Water Co.
1991	New Jersey <u>1/</u>	WR90080884J	Middlesex Water Co.
1991	Pennsylvania <u>3/</u>	R-911892	Phil. Suburban Water Co.
1991	Kansas <u>20/</u>	176, 716-U	Kansas Power & Light Co.
1991	Indiana <u>29/</u>	39017	Indiana Bell Telephone
1991	Nevada <u>21/</u>	91-5054	Central Tele. Co. – Nevada
1992	New Jersey <u>1/</u>	EE91081428	Public Service Electric & Gas
1992	Maryland <u>8/</u>	8462	C&P Telephone Co.
1992	West Virginia <u>2/</u>	91-1037-E-D	Appalachian Power Co.
1993	Maryland <u>8/</u>	8464	Potomac Electric Power Co.
1993	South Carolina <u>22/</u>	92-227-C	Southern Bell Telephone
1993	Maryland <u>8/</u>	8485	Baltimore Gas & Electric Co.
1993	Georgia <u>23/</u>	4451-U	Atlanta Gas Light Co.
1993	New Jersey <u>1/</u>	GR93040114	New Jersey Natural Gas. Co.

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1994	Iowa <u>6/</u>	RPU-93-9	U.S. West – Iowa
1994	Iowa <u>6/</u>	RPU-94-3	Midwest Gas
1995	Delaware <u>24/</u>	94-149	Wilm. Suburban Water Corp.
1995	Connecticut <u>25/</u>	94-10-03	So. New England Telephone
1995	Connecticut <u>25/</u>	95-03-01	So. New England Telephone
1995	Pennsylvania <u>3/</u>	R-00953300	Citizens Utilities Company
1995	Georgia <u>23/</u>	5503-0	Southern Bell
1996	Maryland <u>8/</u>	8715	Bell Atlantic
1996	Arizona <u>26/</u>	E-1032-95-417	Citizens Utilities Company
1996	New Hampshire <u>27/</u>	DE 96-252	New England Telephone
1997	Iowa <u>6/</u>	DPU-96-1	U S West – Iowa
1997	Ohio <u>28/</u>	96-922-TP-UNC	Ameritech – Ohio
1997	Michigan <u>28/</u>	U-11280	Ameritech – Michigan
1997	Michigan <u>28/</u>	U-112 81	GTE North
1997	Wyoming <u>27/</u>	7000-ztr-96-323	US West – Wyoming
1997	Iowa <u>6/</u>	RPU-96-9	US West – Iowa
1997	Illinois <u>28/</u>	96-0486-0569	Ameritech – Illinois
1997	Indiana <u>28/</u>	40611	Ameritech – Indiana
1997	Indiana <u>27/</u>	40734	GTE North
1997	Utah <u>27/</u>	97-049-08	US West – Utah
1997	Georgia <u>28/</u>	7061-U	BellSouth – Georgia
1997	Connecticut <u>25/</u>	96-04-07	So. New England Telephone
1998	Florida <u>28/</u>	960833-TP et. al.	BellSouth – Florida
1998	Illinois <u>27/</u>	97-0355	GTE North/South
1998	Michigan <u>33/</u>	U-11726	Detroit Edison
1999	Maryland <u>8/</u>	8794	Baltimore Gas & Electric Co.
1999	Maryland <u>8/</u>	8795	Delmarva Power & Light Co.
1999	Maryland <u>8/</u>	8797	Potomac Edison Company
1999	West Virginia <u>2/</u>	98-0452-E-GI	Electric Restructuring
1999	Delaware <u>24/</u>	98-98	United Water Company
1999	Pennsylvania <u>3/</u>	R-00994638	Pennsylvania American Water
1999	West Virginia <u>2/</u>	98-0985-W-D	West Virginia American Water
1999	Michigan <u>33/</u>	U-11495	Detroit Edison
2000	Delaware <u>24/</u>	99-466	Tidewater Utilities
2000	New Mexico <u>34/</u>	3008	US WEST Communications, Inc.
2000	Florida <u>28/</u>	990649-TP	BellSouth -Florida
2000	New Jersey <u>1/</u>	WR30174	Consumer New Jersey Water
2000	Pennsylvania <u>3/</u>	R-00994868	Philadelphia Suburban Water
2000	Pennsylvania <u>3/</u>	R-0005212	Pennsylvania American Sewerage
2000	Connecticut <u>25/</u>	00-07-17	Southern New England Telephone
2001	Kentucky <u>36/</u>	2000-373	Jackson Energy Cooperative
2001	Kansas <u>38/39/40/</u>	01-WSRE-436-RTS	Western Resources
2001	South Carolina <u>22/</u>	2001-93-E	Carolina Power & Light Co.
2001	North Dakota <u>37/</u>	PU-400-00-521	Northern States Power/Xcel Energy
2001	Indiana <u>29/41/</u>	41746	Northern Indiana Power Company

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2001	New Jersey 1/	GR01050328	Public Service Electric and Gas
2001	Pennsylvania 3/	R-00016236	York Water Company
2001	Pennsylvania 3/	R-00016339	Pennsylvania America Water
2001	Pennsylvania 3/	R-00016356	Wellsboro Electric Coop.
2001	Florida 4/	010949-EL	Gulf Power Company
2001	Hawaii 42/	00-309	The Gas Company
2002	Pennsylvania 3/	R-00016750	Philadelphia Suburban
2002	Nevada 43/	01-10001 &10002	Nevada Power Company
2002	Kentucky 36/	2001-244	Fleming Mason Electric Coop.
2002	Nevada 43/	01-11031	Sierra Pacific Power Company
2002	Georgia 27/	14361-U	BellSouth-Georgia
2002	Alaska 44/	U-01-34,82-87,66	Alaska Communications Systems
2002	Wisconsin 45/	2055-TR-102	CenturyTel
2002	Wisconsin 45/	5846-TR-102	TelUSA
2002	Vermont 46/	6596	Citizen's Energy Services
2002	North Dakota 37/	PU-399-02-183	Montana Dakota Utilities
2002	Kansas 40/	02-MDWG-922-RTS	Midwest Energy
2002	Kentucky 36/	2002-00145	Columbia Gas
2002	Oklahoma 47/	200200166	Reliant Energy ARKLA
2002	New Jersey 1/	GR02040245	Elizabethtown Gas Company
2003	New Jersey 1/	ER02050303	Public Service Electric and Gas Co.
2003	Hawaii 42/	01-0255	Young Brothers Tug & Barge
2003	New Jersey 1/	ER02080506	Jersey Central Power & Light
2003	New Jersey 1/	ER02100724	Rockland Electric Co.
2003	Pennsylvania 3/	R-00027975	The York Water Co.
2003	Pennsylvania /3	R-00038304	Pennsylvania-American Water Co.
2003	Kansas 20/ 40/	03-KGSG-602-RTS	Kansas Gas Service
2003	Nova Scotia, CN 49/	EMO NSPI	Nova Scotia Power, Inc.
2003	Kentucky 36/	2003-00252	Union Light Heat & Power
2003	Alaska 44/	U-96-89	ACS Communications, Inc.
2003	Indiana 29/	42359	PSI Energy, Inc.
2003	Kansas 20/ 40/	03-ATMG-1036-RTS	Atmos Energy
2003	Florida 50/	030001-E1	Tampa Electric Company
2003	Maryland 51/	8960	Washington Gas Light
2003	Hawaii 42/	02-0391	Hawaiian Electric Company
2003	Illinois 28/	02-0864	SBC Illinois
2003	Indiana 28/	42393	SBC Indiana
2004	New Jersey 1/	ER03020110	Atlantic City Electric Co.
2004	Arizona 26/	E-01345A-03-0437	Arizona Public Service Company
2004	Michigan 27/	U-13531	SBC Michigan
2004	New Jersey 1/	GR03080683	South Jersey Gas Company
2004	Kentucky 36/	2003-00434,00433	Kentucky Utilities, Louisville Gas & Electric
2004	Florida 50/ 54/	031033-EI	Tampa Electric Company
2004	Kentucky 36/	2004-00067	Delta Natural Gas Company

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2004	Georgia 23/	18300, 15392, 15393	Georgia Power Company
2004	Vermont 46/	6946, 6988	Central Vermont Public Service Corporation
2004	Delaware 24/	04-288	Delaware Electric Cooperative
2004	Missouri 58/	ER-2004-0570	Empire District Electric Company
2005	Florida 50/	041272-EI	Progress Energy Florida, Inc.
2005	Florida 50/	041291-EI	Florida Power & Light Company
2005	California 59/	A.04-12-014	Southern California Edison Co.
2005	Kentucky 36/	2005-00042	Union Light Heat & Power
2005	Florida 50/	050045 & 050188-EI	Florida Power & Light Co.
2005	Kansas 38/ 40/	05-WSEE-981-RTS	Westar Energy, Inc.
2006	Delaware 24/	05-304	Delmarva Power & Light Company
2006	California 59/	A.05-12-002	Pacific Gas & Electric Co.
2006	New Jersey 1/	GR05100845	Public Service Electric and Gas Co.
2006	Colorado 60/	06S-234EG	Public Service Co. of Colorado
2006	Kentucky 36/	2006-00172	Union Light, Heat & Power
2006	Kansas 40/	06-KGSG-1209-RTS	Kansas Gas Service
2006	West Virginia 2/	06-0960-E-42T, 06-1426-E-D	Allegheny Power
2006	West Virginia 2/	05-1120-G-30C, 06-0441-G-PC, et al.	Hope Gas, Inc. and Equitable Resources, Inc.
2007	Delaware 24/	06-284	Delmarva Power & Light Company
2007	Kentucky 36/	2006-00464	Atmos Energy Corporation
2007	Colorado 60/	06S-656G	Public Service Co. of Colorado
2007	California 59/	A.06-12-009, A.06-12-010	San Diego Gas & Electric Co., and Southern California Gas Co.
2007	Kentucky 36/	2007-00143	Kentucky-American Water Co.
2007	Kentucky 36/	2007-00089	Delta Natural Gas Co.
2008	Kansas 40/	08-ATMG-280-RTS	Atmos Energy Corporation
2008	New Jersey 1/	GR07110889	New Jersey Natural Gas Co.
2008	North Dakota 37/	PU-07-776	Northern States Power/Xcel Energy

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**PARTICIPATION AS NEGOTIATOR IN FCC TELEPHONE DEPRECIATION
RATE REPRESRIPTION CONFERENCES**

<u>COMPANY</u>	<u>YEARS</u>	<u>CLIENT</u>
Diamond State Telephone Co. <u>24/</u>	1985 + 1988	Delaware Public Service Comm
Bell Telephone of Pennsylvania <u>3/</u>	1986 + 1989	PA Consumer Advocate
Chesapeake & Potomac Telephone Co. - Md. <u>8/</u>	1986	Maryland People's Counsel
Southwestern Bell Telephone – Kansas <u>20/</u>	1986	Kansas Corp. Commission
Southern Bell – Florida <u>4/</u>	1986	Florida Consumer Advocate
Chesapeake & Potomac Telephone Co.-W.Va. <u>2/</u>	1987 + 1990	West VA Consumer Advocate
New Jersey Bell Telephone Co. <u>1/</u>	1985 + 1988	New Jersey Rate Counsel
Southern Bell - South Carolina <u>22/</u>	1986 + 1989 + 1992	S. Carolina Consumer Advocate
GTE-North – Pennsylvania <u>3/</u>	1989	PA Consumer Advocate

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**PARTICIPATION IN PROCEEDINGS WHICH WERE
SETTLED BEFORE TESTIMONY WAS SUBMITTED**

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
Maryland <u>8/</u>	7878	Potomac Edison
Nevada <u>21/</u>	88-728	Southwest Gas
New Jersey <u>1/</u>	WR90090950J	New Jersey American Water
New Jersey <u>1/</u>	WR900050497J	Elizabethtown Water
New Jersey <u>1/</u>	WR91091483	Garden State Water
West Virginia <u>2/</u>	91-1037-E	Appalachian Power Co.
Nevada <u>21/</u>	92-7002	Central Telephone - Nevada
Pennsylvania <u>3/</u>	R-00932873	Blue Mountain Water
West Virginia <u>2/</u>	93-1165-E-D	Potomac Edison
West Virginia <u>2/</u>	94-0013-E-D	Monongahela Power
New Jersey <u>1/</u>	WR94030059	New Jersey American Water
New Jersey <u>1/</u>	WR95080346	Elizabethtown Water
New Jersey <u>1/</u>	WR95050219	Toms River Water Co.
Maryland <u>8/</u>	8796	Potomac Electric Power Co.
South Carolina <u>22/</u>	1999-077-E	Carolina Power & Light Co.
South Carolina <u>22/</u>	1999-072-E	Carolina Power & Light Co.
Kentucky <u>36/</u>	2001-104 & 141	Kentucky Utilities, Louisville Gas and Electric
Kentucky <u>36/</u>	2002-485	Jackson Purchase Energy Corporation

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Clients

<u>1/</u> New Jersey Rate Counsel/Advocate	<u>33/</u> Michigan Attorney General
<u>2/</u> West Virginia Consumer Advocate	<u>34/</u> New Mexico Attorney General
<u>3/</u> Pennsylvania OCA	<u>35/</u> Environmental Protection Agency Enforcement Staff
<u>4/</u> Florida Office of Public Advocate	<u>36/</u> Kentucky Attorney General
<u>5/</u> Toms River Fire Commissioner's	<u>37/</u> North Dakota Public Service Commission
<u>6/</u> Iowa Office of Consumer Advocate	<u>38/</u> Kansas Industrial Group
<u>7/</u> D.C. People's Counsel	<u>39/</u> City of Wichita
<u>8/</u> Maryland's People's Counsel	<u>40/</u> Kansas Citizens' Utility Rate Board
<u>9/</u> Idaho Public Service Commission	<u>41/</u> NIPSCO Industrial Group
<u>10/</u> Western Burglar and Fire Alarm	<u>42/</u> Hawaii Division of Consumer Advocacy
<u>11/</u> U.S. Dept. of Defense	<u>43/</u> Nevada Bureau of Consumer Protection
<u>12/</u> N.M. State Corporation Comm.	<u>44/</u> GCI
<u>13/</u> City of Philadelphia	<u>45/</u> Wisc. Citizens' Utility Rate Board
<u>14/</u> Resorts International	<u>46/</u> Vermont Department of Public Service
<u>15/</u> Woodlake Condominium Association	<u>47/</u> Oklahoma Corporation Commission
<u>16/</u> Illinois Attorney General	<u>48/</u> National Assn. of State Utility Consumer Advocates
<u>17/</u> Mass Coalition of Municipalities	<u>49/</u> Nova Scotia Utility and Review Board
<u>18/</u> U.S. Department of Energy	<u>50/</u> Florida Office of Public Counsel
<u>19/</u> Arizona Electric Power Corp.	<u>51/</u> Maryland Public Service Commission
<u>20/</u> Kansas Corporation Commission	<u>52/</u> MCI
<u>21/</u> Public Service Comm. – Nevada	<u>53/</u> Transmission Agency of Northern California
<u>22/</u> SC Dept. of Consumer Affairs	<u>54/</u> Florida Industrial Power Users Group
<u>23/</u> Georgia Public Service Comm.	<u>55/</u> Sierra Club
<u>24/</u> Delaware Public Service Comm.	<u>56/</u> Our Children's Earth Foundation
<u>25/</u> Conn. Ofc. Of Consumer Counsel	<u>57/</u> National Parks Conservation Association, Inc.
<u>26/</u> Arizona Corp. Commission	<u>58/</u> Missouri Office of the Public Counsel
<u>27/</u> AT&T	<u>59/</u> The Utility Reform Network
<u>28/</u> AT&T/MCI	<u>60/</u> Colorado Office of Consumer Counsel
<u>29/</u> IN Office of Utility Consumer Counselor	<u>61/</u> MD State Senator Paul G. Pinsky
<u>30/</u> Unitel (AT&T – Canada)	<u>62/</u> MD Speaker of the House Michael Busch
<u>31/</u> Public Interest Advocacy Centre	
<u>32/</u> U.S. General Services Administration	

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR AN) CASE NO. 2008-000252
ADJUSTMENT OF BASE RATES)

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY TO FILE) CASE NO. 2007-00564
DEPRECIATION STUDY)

PREPARED DIRECT TESTIMONY AND SCHEDULES

OF

GLENN A. WATKINS

ON BEHALF OF THE

KENTUCKY OFFICE OF THE ATTORNEY GENERAL

OCTOBER 30, 2008

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

2 A. My name is Glenn A. Watkins. My business address is James Center III, 1051
3 East Cary Street, Suite 601, Richmond, VA 23219.

4
5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am a Principal and Senior Economist with Technical Associates, Inc., which is
7 an economic and financial consulting firm with offices in Richmond, Virginia.

8
9 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

10 A. I am testifying on behalf of the Office of Rate Intervention of the Kentucky Office
11 of Attorney General ("OAG").

12
13 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS.**

14 A. Except for a six-month period during 1987 in which I was employed by Old
15 Dominion Electric Cooperative as its forecasting and rate economist, I have been
16 employed by Technical Associates continuously since 1980.

17 During my career at Technical Associates, I have conducted marginal and
18 embedded cost of service, rate design, cost of capital, and load forecasting studies
19 involving numerous electric, gas, water/wastewater, and telephone utilities, and have
20 provided expert testimony in Alabama, Arizona, Georgia, Kentucky, Maine, Maryland,
21 Massachusetts, Michigan, New Jersey, Ohio, Illinois, Pennsylvania, Vermont, Virginia,
22 South Carolina, Washington, and West Virginia. I hold an M.B.A. and B.S. in economics
23 from Virginia Commonwealth University. I am a member of several professional
24 organizations as well as a Certified Rate of Return Analyst. A more complete
25 description of my education and experience is provided in my Schedule GAW_1 to my
26 testimony.

27
28 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

29 A. Technical Associates has been retained by the OAG to evaluate the
30 reasonableness of Louisville Gas & Electric Company's ("LG&E" or "Company")
31 proposed electric weather normalization adjustment, electric and gas class cost of service

1 studies (CCOSS), proposed distribution of revenues by class, and residential electric and
2 gas rate designs. The purpose of my testimony, therefore, is to comment on LG&E's
3 proposals on these issues and to present my findings and recommendations based on the
4 results of the studies I have undertaken on behalf of the OAG.

5
6 **ELECTRIC WEATHER NORMALIZATION**

7
8 **Q. HAVE YOU EXAMINED LG&E'S PROPOSED ELECTRIC WEATHER**
9 **NORMALIZATION ADJUSTMENT IN THIS CASE?**

10 A. Yes.

11
12 **Q. WHAT IS THE NET EFFECT OF THE COMPANY'S PROPOSED WEATHER**
13 **NORMALIZATION ADJUSTMENT?**

14 A. LG&E witness William Seelye sponsors a weather normalization adjustment that
15 will impact customers' ultimate rates in two respects: the first is the overall revenue
16 requirement effect and the second is a rate design effect. In terms of the overall revenue
17 requirement effect, Mr. Seelye adjusts actual test year revenues and variable expenses
18 downward to correct for what he considers to be unusual (or abnormal) weather occurring
19 during the test year. In other words, the Company does not expect to achieve the same
20 level of kWh sales (and revenue) that was experienced during the test year on a going
21 forward basis. Mr. Seelye's weather normalization adjustment results in reduction to
22 actual test year revenues of \$14.374 million and a reduction in variable expenses of
23 \$4.751 million. This downward adjustment to actual net revenues has an upward impact
24 on the Company's revenue requirement on a going forward basis; i.e., all other things
25 constant, this adjustment increases the revenue requirement. The second aspect of this
26 weather normalization adjustment is the rate design effect. Because the weather
27 adjustment reduces test year kWh sales, there are fewer units (kWh) to collect the overall
28 revenue requirement such that there is an additional upward pressure on customers
29 resulting from the weather normalization adjustment.

1 **Q. MR. WATKINS, WHAT IS THE BASIS FOR LG&E'S REQUEST TO ADJUST**
2 **ITS ACTUAL TEST YEAR SALES VOLUMES AND REVENUES?**

3 A. As a result of abnormal weather, the Company claims that actual test year sales
4 volumes (kWh) were greater than can be expected on a going forward basis.
5

6 **Q. DO YOU AGREE THAT THE COMPANY'S PROPOSED ELECTRIC**
7 **WEATHER NORMALIZATION ADJUSTMENT SHOULD BE USED FOR**
8 **RATEMAKING PURPOSES?**

9 A. From a conceptual standpoint, the general consensus of public utility
10 commissions throughout the United States is that it is unreasonable to weather normalize
11 electric utility revenues for ratemaking purposes. In this regard, this Commission would
12 be well advised to continue its current practice of not considering electric weather
13 normalization which is consistent with the vast majority of other states. This would
14 translate to a disallowance of \$9.6230 million from the company's request in net revenue
15 (\$14.374 million in revenue less \$4.751 million in variable expense).
16

17 **Q. DO CUSTOMERS KWH ENERGY USAGES VARY MATERIALLY WITH**
18 **CHANGES IN WEATHER CONDITIONS?**

19 A. Yes for some customers, and no for other customers. As a result of variances in
20 electrical appliance and equipment saturations, some customers' electric usage varies
21 significantly with changes in weather (temperature) while other customers' energy usage
22 vary much less. For example, on an extremely hot summer day, residential customers
23 will generally use considerably more electricity than on a mild, spring like day due to air
24 conditioning load. On the other hand, the total electricity used by an industrial customer
25 may not be materially different on the hot verses mild days due to this customer's non-
26 weather sensitive load over shadowing its space cooling requirements (at least in terms of
27 ambient outdoor temperatures).
28

29 **Q. OVER THE COURSE OF AN ENTIRE YEAR, DO PERIODS OF MILD**
30 **WEATHER OFFSET PERIODS OF EXTREME WEATHER IN TERMS OF**
31 **ELECTRICITY USAGE?**

1 A. In general, yes. This is particularly true for electricity sales.

2

3 **Q. PLEASE EXPLAIN.**

4 A. Although the following is common knowledge, it is important to consider how
5 electricity is used and how weather affects this usage. For purposes of my explanation, I
6 will focus on residential customers. As indicated earlier, there is no doubt that weather,
7 primarily temperature, effects energy usage. In the summer there are periods of days that
8 are very hot and electricity sales are elevated. Similarly there are mild days throughout
9 the summer in which electricity sales are depressed due to reduced air conditioner loads.
10 These hot and mild periods occur virtually every year. The question then arises if a
11 particular cooling season (summer) as a whole is abnormally warm with an attendant
12 abnormally high level of energy sales. In addition to cooling load (air conditions),
13 electricity is also used for space heating by many customers in the winter. Similar to
14 severe and mild weather in the summer, electricity sales on a daily basis are affected in
15 the winter due to electric heating requirements. In addition to weather sensitive
16 appliances, residential customers use a significant amount of electricity for other
17 appliances that do not vary with weather; e.g., refrigerators/freezers, televisions, etc.
18 Because of these factors and situations, annual electricity sales tend to be much more
19 stable than say, natural gas sales, which are predominated by space heating load
20 requirements in the winter. For these reasons, it is rare for commissions to consider
21 weather normalization for electric utilities. In this regard, and as a matter of policy, the
22 Commission would be well guided to continue its practice of not considering weather
23 normalization for Kentucky electric utilities.

24

25 **Q. WE KNOW THAT RESIDENTIAL KWH SALES VARY DUE TO WEATHER**
26 **CONDITIONS ON A DAY-TO-DAY BASIS BUT HOW DOES ONE DETERMINE**
27 **IF WEATHER IS ABNORMAL OVER THE COURSE OF A SEASON?**

28 A. There is no definitive answer to this question. There is no doubt that a summer
29 day in the high 90's is a hot day and warmer than "average". However, the question that
30 must be answered is whether the summer overall was "abnormal". Similarly, one must
31 determine if a winter season is materially different than normal; i.e., extremely severe or

1 mild. With regard to seasonal variations from year to year, there is significant debate as
2 to what constitutes departure from what is reasonably normal or expected. The National
3 Oceanic and Atmospheric Administration (“NOAA”), National Climatic Data Center
4 defines normal weather as a thirty-year average for the most recent completed three
5 decades. In other words, the current NOAA definition of normal weather is for the
6 period 1971 through 2000. Because of short-term trends in seasonal weather patterns,
7 shorter periods are sometimes used to define normal weather as well as using the most
8 recent thirty years to define normal. I am also aware of instances in which much longer
9 periods are used to define normal weather for a season.

10 Even with these differences in defining “normal” weather, one cannot say that the
11 weather was particularly extreme simply because there is somewhat of a deviation from a
12 historical average. In other words, assume the average maximum temperature for a given
13 summer day is 85 degrees. If the actual temperature is 87 degrees, I do not believe it can
14 be said that this is “abnormal” or “extreme” for that day. In this regard, the determination
15 of “abnormal” or “extreme” is truly subjective.

16
17 **Q. EVEN THOUGH THE DEFINITION OF ABNORMAL WEATHER IS**
18 **SUBJECTIVE, ARE THERE METHODS THAT CAN BE USED TO FAIRLY**
19 **AND REASONABLY DEFINE NORMAL AND ABNORMAL WEATHER?**

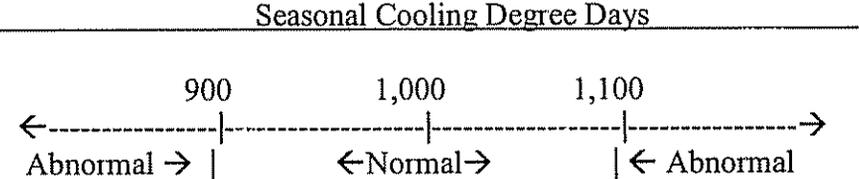
20 A. Yes.

21
22 **Q. PLEASE EXPLAIN.**

23 A. Remembering that we should be concerned about the overall variation in weather
24 over an entire season (heating or cooling), a banding approach is, in my opinion, a fair
25 and reasonable way to determine if a season’s weather falls inside or outside of a band of
26 reasonably normal weather. This banding approach is used by Mr. Seelye in this case.
27 To the extent the Commission authorizes a weather normalization adjustment in this case,
28 I could support the concept of banding, as it eliminates quibbling over minor variances
29 from a pre-determined average or “normal” weather pattern.

30
31 **Q. PLEASE EXPLAIN THIS BANDING APPROACH IN LAYMAN’S TERMS.**

1 A. The traditional unit to measure summer temperatures over time is cooling degree
 2 days (“CDD”) and the traditional unit to measure winter temperatures over time is
 3 Heating Degree Days (“HDD”).¹ Assume that “normal” or average CDD’s over the
 4 entire cooling season are 1,000. As discussed earlier, if the actual CDD were say 1010,
 5 we likely would not consider this an abnormally warm summer. However, if we
 6 subjectively determine a relative percentage of time in which we deem weather as
 7 abnormal, we can apply a simple statistical technique to determine the bands of
 8 normalcy. If we assume the variations in weather from year to year are random (no trend
 9 or pattern) we can subjectively define a percentage of time (years) in which weather is
 10 considered normal. For example, suppose we decide (subjectively) that weather
 11 occurring 75% of the time within a long term average is normal and the remaining 25%
 12 of the time the weather is defined as abnormal (12.5% mild and 12.5% severe), we can
 13 quantify the bands of normal weather. Consider the following hypothetical example:



14
 15
 16
 17
 18
 19
 20 If we know that 75% of the time a season’s CDD fall between 900 and 1,100 we would
 21 define this range as normal. If a season’s actual CDD’s are greater than 1,100 we would
 22 deem that season as abnormally warm. Similarly, if the actual CDD’s in a season are less
 23 than 900 we would deem that season abnormally mild. This is the approach proposed by
 24 Mr. Seelye. As indicated earlier, I support this approach but it must be emphasized that
 25 the range of normalcy is subjective and should be determined by the Commission. It
 26 should also be noted that this approach requires the assumption that annual seasonal
 27 weather variations are truly random; i.e., no trends or patterns are present.

28
 29 **Q. IN YOUR HYPOTHETICAL EXAMPLE, YOU USED A NORMALCY BAND OF**
 30 **75%. WHAT BAND IS USED BY MR. SEELYE?**

31 A. Approximately sixty-eight percent.

¹ CDD is traditionally defined as 65 degrees minus the average temperature (High and Low) for a day. HDD is traditionally defined as average temperature minus 65 degrees. CDD and HDD cannot be negative.

1 Q. HOW DID MR. SEELYE SELECT SIXTY-EIGHT PERCENT AS HIS NORMAL
 2 BAND FOR WEATHER?

3 A. This 68% is a convenient percentage in statistics in that it represents the
 4 percentage of time that one can expect weather to vary within plus or minus one standard
 5 deviation. There is nothing especially significant about a standard deviation of 1.0, as the
 6 exact same statistical techniques can be used at any level selected for normalcy; e.g.,
 7 50%, 75%, etc.

8
 9 Q. WHAT WEATHER PATTERNS WERE ACTUALLY EXPERIENCED IN THE
 10 LG&E SERVICE AREA DURING THE TEST YEAR?

11 A. Overall, the cooling season (summer period) was exceptionally warm during the
 12 test year, whereas the heating season (winter period) was somewhat milder than average.
 13 The following is a comparison of monthly CDD and HDD to the most recent 30-year
 14 average for CDD and HDD:

Month	CDD or HDD Actual Test Year	30-Year Average	Difference
<u>Cooling Season (CDD)</u>			
June	376	306	70
July	396	438	<42>
August	629	407	222
September	350	204	146
Total	1,751	1,355	396
<u>Heating Season (HDD)</u>			
November	480	500	<20>
December	712	833	<121>
January	935	954	<19>
February	787	769	18
March	569	558	11
Total	3,483	3,614	<131>

25
 26
 27
 28
 29 As can be seen above, August and September 2007 were exceptionally warmer than the
 30 30-year average, while December 2007 was considerably milder than the 30-year
 31 average.

1 **Q. WHY ARE APRIL, MAY AND OCTOBER NOT PROVIDED IN THE TABLE**
2 **ABOVE?**

3 A. These months are considered shoulder months. Days in April and May can be
4 cool or fairly warm such that these months are comprised of heating degree days and
5 cooling degree days. As such, heating and air conditioning loads are usually not
6 predictable in April and May. The same is true for October. Generally, the early part of
7 October is warm and air conditioning load is still present. By the middle to end of
8 October, the weather cools to the point that there is some heating load. As such, October
9 is not very consistent as far as what can be considered “normal” weather.

10

11 **Q. MR. WATKINS, IT IS GENERALLY FAIRLY COOL IN APRIL AND FAIRLY**
12 **WARM BY THE END OF MAY IN KENTUCKY. WOULD IT BE**
13 **APPROPRIATE TO CONSIDER EACH APRIL AS PART OF THE HEATING**
14 **SEASON AND LATE MAY AS PART OF THE COOLING SEASON?**

15 A. In my opinion no. Both of these months experience considerable variation
16 between periods cold enough for space heating, mild enough for open windows, and
17 warm enough for air conditioning load.

18

19 **Q. FOR PURPOSES OF WEATHER NORMALIZATIONS, HOW DO YOU DEFINE**
20 **LG&E’S COOLING AND HEATING SEASONS?**

21 A. I define LG&E’s cooling season as the months of June through September and the
22 heating season as the months of November through March.

23

24 **Q. IF THE COMMISSION ACCEPTS A BANDING APPROACH AS PROPOSED**
25 **BY MR. SEELYE AND SUPPORTED BY YOU, HOW SHOULD THIS**
26 **APPROACH BE APPLIED TO THE HEATING AND COOLING SEASONS?**

27 A. The banding should be applied separately to the entire heating season and again
28 separately for the entire cooling season. This is a major difference in the manner in
29 which Mr. Seelye applied his weather banding, in that Mr. Seelye applies a weather
30 normalcy band to each individual month. Mr. Seelye’s monthly banding results in a bias
31 to the annual normalized sales volumes.

1 **Q. PLEASE EXPLAIN.**

2 A. As discussed earlier, a given heating or cooling season is comprised of days in
3 which it is milder than expected and more severe than expected. The overall objective is
4 to consider the overall effects of weather during a heating or cooling season and Mr.
5 Seelye's monthly banding does not meet this objective. To illustrate, consider the actual
6 experience of July and August during the test year. July's actual CDDs were 396 which
7 compare to a 30-year average July CDD of 438. This is a difference of -42 CDD which
8 indicates that July was somewhat milder than the long-term average. Because this
9 deviation from average (-42) does not fall outside of Mr. Seelye's monthly band, it is not
10 adjusted and this mild weather for July is not considered any further in his analysis.

11 However, August was adjusted by Mr. Seelye because this individual month's
12 weather fell outside of his monthly band. The actual CDDs for August in the test year
13 were 629. This compares with a long-term average of 407 for August and is a difference
14 of 222 CDDs. This exceptionally hot weather during August 2007 falls outside of Mr.
15 Seelye's normalcy band and August's kWh sales were adjusted downward. However, no
16 adjustment or consideration was given to the somewhat milder weather experienced
17 during July 2007.

18
19 **Q. HOW HAVE YOU ESTIMATED THE EFFECTS OF WEATHER ON**
20 **CUSTOMER'S ELECTRICITY USAGE?**

21 A. As discussed earlier, variations in electricity sales during the summer are affected
22 by variations in air conditioning load, while winter kWh sales variations are affected by
23 changes in space heating load. The two uses cannot be measured together and must be
24 examined separately. Therefore, I have conducted separate analyses for the cooling
25 (summer) and heating (winter) seasons.

26 I conducted linear regression analyses by season for each rate class in order to
27 develop a weather sensitive usage coefficient for each class. In other words, the weather
28 sensitive coefficient measures the incremental level at which a classes kWh usage varies
29 with an incremental change in weather (CDD in summer, HDD in winter). Specifically, I
30 developed a separate regression model for each class and each season (cooling and
31 heating). These regression models were developed based on daily kWh usage and daily

1 degree days. In other words, the cooling season is comprised of four months (June
2 through September). My model was developed using each daily observation during this
3 season (142 days). Because usage patterns can and do vary significantly between
4 weekdays and weekends/holidays, I have also reflected this reality in my analysis of daily
5 observations. With regard to the Residential class, I have expressed daily kWh usage on
6 a per customer basis in order to prevent any skewness in my regression models. The
7 Commercial and Industrial classes were analyzed on a total class basis.

8
9 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING WEATHER**
10 **NORMALIZATION FOR LG&E'S ELECTRIC OPERATIONS DURING THE**
11 **TEST YEAR?**

12 A. Based on my analyses, I conclude that the overall cooling season (summer) during
13 the test year was exceptionally warm which translated into exceptionally high summer
14 energy sales for LG&E. This weather (and attendant kWh sales) falls beyond what can
15 reasonably be expected on a going-forward basis and warrants a downward adjustment.
16 Although the test year's heating season was somewhat milder than normal, these sales do
17 not warrant adjustment.

18
19 **Q. IS THERE ANY BIAS IN YOUR CONCLUSION THAT SUMMER KWH SALES**
20 **SHOULD BE ADJUSTED DOWNWARD DUE TO EXCEPTIONALLY SEVERE**
21 **WEATHER, BUT WINTER KWH SALES DO NOT WARRANT AN OPPOSITE**
22 **UPWARD ADJUSTMENT DUE TO A SOMEWHAT MILDER WINTER?**

23 A. As long as a banding approach is used, the answer is no. This is because the
24 summer normalization is made only to the outer limit of the "normalcy" band and not all
25 the way to an average historical experience. Thus, while it is true that the milder winter
26 sales somewhat offset the extreme weather-related summer sales, each season reflects a
27 reasonable level of what can be expected on a going-forward basis.

28
29 **Q. WHAT ARE THE RESULTS OF YOUR WEATHER NORMALIZATION**
30 **ANALYSIS FOR LG&E'S ELECTRIC OPERATIONS?**

1 A. My Schedule GAW_2 presents the results of my weather normalization analysis
2 for LG&E's electric operations. Page 1 of this Schedule provides a summary of each
3 class' kWh and revenue adjustment as well as the adjustment required to variable
4 expenses. Pages 2 through 12 present the detailed kWh adjustment for each class. My
5 weather normalization analysis results in a reduction to actual test year revenues of
6 \$9.038 million and a reduction to actual test year expenses of \$2.985 million.

7

8 **Q. YOU HAVE ALREADY DISCUSSED YOUR DISAGREEMENT WITH MR.
9 SEELYE REGARDING MONTHLY VERSUS SEASONAL ANALYSIS AND
10 ADJUSTMENTS. DO YOU HAVE ANY OTHER DISAGREEMENTS WITH MR.
11 SEELYE'S PROPOSED WEATHER NORMALIZATION ANALYSES?**

12 A. Yes.

13

14 **Q. PLEASE EXPLAIN THESE OTHER DISAGREEMENTS.**

15 A. I disagree with Mr. Seelye's decision to use the step-wise multiple regression
16 technique as well as his inclusion of numerous weather-related variables. At the outset I
17 want it to be clear that I understand and appreciate Mr. Seelye's desire to conduct his
18 statistical analysis on an objective basis. However, Mr. Seelye's procedures are not
19 warranted and often produce conflicting model results.

20 We have already established that weather generally affects electricity sales. On
21 an hourly or daily basis, these weather factors can include ambient temperature, wind
22 velocity, relative humidity, the degree of cloud cover, whether snow cover is present to
23 insulate structures, whether a thunderstorm appears on a hot afternoon and dramatically
24 and suddenly reduces load (and sales), wind direction, and perhaps a few more factors.

25 Mr. Seelye has attempted to consider many of these short-term factors in his
26 modeling analysis by using a technique known as step-wise regression. This statistical
27 technique selects a combination of possible variables to be considered and selects an
28 equation that maximizes certain statistic parameters. This step-wise technique is simply a
29 mathematical algorithm calculated by a computer. In other words, the variables offered
30 to a computer in the step-wise technique are simply sets of numbers. Obviously, the
31 computer has no ability to determine if the potential variables are consistent with the task

1 at hand or even if they make sense from a conceptual perspective. There is no doubt that
 2 variables selected using the step-wise technique is objective. However, this technique is
 3 no substitute for informed human judgment. In their much respected text book, Applied
 4 Regression Analysis, Norman Draper and Harry Smith render the following opinion
 5 regarding the step-wise procedure used for econometric regression analyses:

6 **Opinion.** We believe this to be one of the best of the variable selection
 7 procedures and recommend its use. It makes economical use of computer
 8 facilities, and it avoids working with more X 's than are necessary while
 9 improving the equation at every stage. However, stepwise regression can
 10 easily be abused by the "amateur" statistician. As with all the procedures
 11 discussed, sensible judgment is still required in the initial selection of
 12 variables and in the critical examination of the model through examination
 13 of residuals. It is easy to rely too heavily on the automatic selection
 14 performed in the computer. [Third Edition, page 338]
 15

16 As a result of Mr. Seelye's attempt to be unnecessarily surgically precise, he
 17 arrives at nonsensical conclusions and models. As an illustration, remember that Mr.
 18 Seelye developed a separate regression equation, by class, for each month. Consider and
 19 compare Mr. Seelye's step-wise derived Residential models for July and August.

20

Variable	July <u>1/</u>	August <u>1/</u>
Intercept	-9,073,496	1,166,041
Maximum Temperature	246,777	--
Minimum Temperature	--	145,063
Cloudy	--	-492,074
CDD70	227,194	512,577
Weekend	--	762,045

21
22
23
24
25
26 1/ Per Seelye Exhibit 17.

27
28 Mr. Seelye's step-wise procedures result in a finding that in July, kWh sales are a
 29 function (related to) of maximum temperature and cooling degree days (CDD70).
 30 However, in August, the computer determined that Residential kWh sales are not a
 31 function of this set of explanatory variables, but rather, minimum temperature (the
 32 opposite concept of what would be expected), cloudiness, and weekdays versus weekend
 33 days. Related to the inconsistency of these adjoining summer months is the level in
 34 which kWh usage varies with changes in overall average daily temperatures (CDD70).

1 Notice that the July model has a CDD70 coefficient of 227,194, while the August
2 coefficient of 512,577. What this means is that, all other things constant, kWh sales will
3 vary by 227,194 kWh for each variation in CDD70 during July, but will vary by 512,577
4 in August.

5 There are many more inconsistencies and seemingly non-sensical results for other
6 months as well as across classes, that I will not dwell on. In my opinion, and that of the
7 industry, HDD and CDD are the accepted and most appropriate explanatory variables.

8
9 **ELECTRIC CLASS COST OF SERVICE**

10
11 **Q. PLEASE EXPLAIN THE CONCEPT OF A CLASS COST OF SERVICE STUDY**
12 **(“CCOSS”).**

13 A. First, I note that there are two general types of cost of service studies used for
14 public utility ratemaking: marginal cost studies; and embedded, fully allocated cost
15 studies. LG&E has utilized a traditional embedded cost of service concept in this case for
16 purposes of establishing its overall retail revenue requirement, as well as for its class cost
17 of service study (“CCOSS”). As such, I will limit my explanation to embedded class cost
18 of service studies.

19 Embedded cost of service studies are often referred to as fully allocated cost
20 studies. This is because the vast majority of an electric utility’s plant investment serves
21 all customers, and the majority of expenses are incurred in a joint manner such that these
22 costs cannot be specifically attributed to any individual customer or group of customers.
23 To the extent that certain costs can be specifically attributable to a particular customer (or
24 group of customers), these costs are often directly assigned in a CCOSS. However, the
25 vast majority of LG&E’s Production, Transmission, and Distribution plant and expenses
26 are incurred jointly to serve all (or most) customers. These joint costs are then allocated
27 to rate classes. It is generally recognized that to the extent possible, joint costs should be
28 allocated to classes based on the concept of cost causation; i.e., costs are allocated based
29 on specific factors that cause costs to be incurred by the utility. Although cost analysts
30 generally strive to abide by the concept of cost causation to the greatest extent practical,
31 some costs (particularly overhead costs), cannot be attributed to specific exogenous

1 factors and must be subjectively assigned or allocated to rate classes. With regards to
2 those costs in which cost causation can be attributed, cost of service experts often
3 disagree as to what is the most cost causative factor; e.g., peak demand, energy usage,
4 number of customers, etc.

5
6 **Q. PLEASE EXPLAIN HOW CCOSS RESULTS SHOULD BE USED IN THE**
7 **RATEMAKING PROCESS.**

8 A. Although there are certain principles used by all cost of service analysts, there are
9 often significant disagreements on the specific factors that drive certain costs. These
10 disagreements can and do arise as a result of the quality of data and level of detail
11 available from financial records, as well as fundamental differences in opinions regarding
12 the design or cost causation factors that should be considered to properly allocate costs to
13 rate schedules or customer classes. Furthermore, and as mentioned earlier, cost causation
14 factors cannot be realistically ascribed to some costs such that subjective decisions are
15 required.

16 In this regard, two different cost studies conducted for the same utility and time
17 period can, and often do, yield different results. As such, regulators should consider
18 CCOSS results as one of many tools in assigning revenue responsibility.

19
20 **Q. PLEASE EXPLAIN HOW YOU PROCEEDED WITH YOUR ANALYSIS OF**
21 **LG&E'S CCOSS.**

22 A. The process in which I conducted my analysis in this case was identical to how I
23 evaluate all CCOSSs. First, I reviewed the structure and organization of the Company's
24 CCOSS. Once the basic structure was understood, I reviewed the accuracy and
25 completeness of the primary drivers (allocators) used to assign costs to rate schedules
26 and classes. Next, I reviewed LG&E's selection of allocators to specific rate base,
27 revenue and expense accounts. Finally, I adjusted certain aspects of the Company's
28 study to better reflect cost causation and cost incidence by rate schedule and customer
29 class.

1 **Q. DID YOU FIND THE COMPANY'S STUDY TO BE MATHEMATICALLY**
2 **ACCURATE?**

3 A. Yes. Perhaps the most fundamental requirement of an embedded CCOSS is that
4 the sum of the parts (classes) must equal the whole (system). This is true with respect to
5 the allocation of financial accounts, as well as the various allocation factors.
6 Furthermore, certain costs previously allocated are carried forward for other purposes
7 such as for the development of composite or internal allocators and for the assignment of
8 income taxes. In all regards, I found Mr. Seelye's CCOSS to be mathematically
9 accurate.

10

11 **Q. DID YOUR EXAMINATION RESULT IN ANY DISAGREEMENTS WITH THE**
12 **ASSUMPTIONS OR METHODOLOGIES USED BY MR. SEELYE?**

13 A. Yes. I have two material disagreements with Mr. Seelye's CCOSS.

14

15 **Q. PLEASE OUTLINE YOUR TWO MATERIAL DISAGREEMENTS.**

16 A. The two substantial disagreements that I have with Mr. Seelye are his "Modified
.7 Base-Intermediate-Peak" method to allocate generation costs and his classification of
18 distribution plant between customer-related and demand-related.

19

20 A. **Generation**

21

22 **Q. YOU INDICATE THAT ONE OF YOUR DISAGREEMENTS WITH MR.**
23 **SEELYE IS HIS USE OF WHAT HE REFERS TO AS A MODIFIED BASE-**
24 **INTERMEDIATE-PEAK METHOD TO ALLOCATE GENERATION COSTS.**
25 **ARE THERE OTHER METHODOLOGIES WHICH MAY BE USED TO**
26 **ALLOCATE GENERATION- RELATED PLANT AND EXPENSES?**

27 A. Yes. There are several demand allocation methods utilized in the electric
28 industry. The current National Association of Regulatory Utility Commissioners
29 ("NARUC") Electric Utility Cost Allocation Manual discusses at least thirteen embedded
30 demand allocation methods, while Dr. James Bonbright noted the existence of at least 29
31 demand allocation methods in his treatise, Principles of Public Utilities Rates.

1 **Q. WHY DO SO MANY GENERATION ALLOCATION METHODS EXIST FOR**
2 **THE ELECTRIC INDUSTRY?**

3 A. Utilities design and build generation facilities to meet the energy and demand
4 requirements of their customers on a collective basis. Because of this, and the physical
5 laws of electricity, it is impossible to determine which customers are being served by
6 which facilities. As such, production facilities are joint costs; i.e., used by all customers.
7 Because of this commonality, production-related costs are not directly known for any
8 customer or customer group and must somehow be allocated.

9 If all customer classes used electricity at a constant rate throughout the year, there
10 would be no disagreement as to the proper assignment of generation-related costs: all
11 analysts would agree that energy usage in terms of kWh would be the proper approach to
12 reflect cost causation and cost incidence. However, such is not the case in that LG&E
13 experiences periods (hours) of much higher demand during certain times of the year and
14 across various hours of the day. Moreover, all customer classes do not contribute in
15 equal proportions to these varying demands placed on the generation system. To
16 complicate matters, the electric utility industry is somewhat unique in that there is a
17 distinct energy/capacity trade-off relating to generation costs. That is, utilities design
18 their mix of production facilities (generation and power supply) to minimize the total
19 costs of energy and capacity, while also ensuring there is enough available capacity to
20 meet peak demands. The trade-off occurs between the level of fixed investment per unit
21 of capacity (KW) and the variable cost of producing a unit of output (kWh). Coal and
22 nuclear units require high capital expenditures resulting in large investments per KW,
23 whereas smaller units with higher variable production costs generally require
24 significantly less investment per KW. Due to varying levels of demand placed on the
25 system over the course of each day, month, and year there is a unique optimal mix of
26 production facilities for each utility that minimizes the total cost of capacity and energy;
27 i.e., its cost of service.

28 Therefore, as a result of the energy/capacity cost trade-off, and the fact that the
29 service requirements of each utility are unique, many different allocation methodologies
30 have evolved in an attempt to equitably allocate joint production costs to individual
31 classes.

1 Q. PLEASE EXPLAIN.

2 A. Total production costs vary each hour of the year. Theoretically, energy and
3 capacity costs should be allocated to classes each and every hour of the year. This would
4 result in 8,760 hourly allocations during non-leap years. Although such an analysis is
5 certainly possible with today's technology, the time and cost necessary for such an
6 undertaking would likely exceed the additional benefits obtained over simpler methods.
7 This is because the analyst does not know precise class loads each and every hour, and
8 subjective decisions must still be made regarding the assignment of fixed investment
9 (capacity costs) to individual hours. With this practical constraint in mind, each method
10 has its strengths and weaknesses regarding its reasonableness in reflecting cost causation
11 as well as the cost and effort required to produce a study.

12

13 Q. BRIEFLY, DISCUSS THE STRENGTHS AND WEAKNESSES OF COMMON
14 PRODUCTION COST ALLOCATION METHODOLOGIES.

15 A. A brief description of the most common fully allocated cost methodologies and
16 attendant strengths and weaknesses are as follows:

7 Single Coincident Peak ("1-CP") -- The basic concept underlying the 1-CP
18 method is that an electric utility must have enough capacity available to meet its
19 customers' peak coincident demand. As such, advocates of the 1-CP method reason that
20 customers (or classes) should be responsible for fixed capacity costs based on their
21 respective contributions to this peak system load. The major advantages to the 1-CP
22 method are that the concepts are easy to understand, the analyses required to conduct a
23 CCOSS are relatively simple, and the data requirements are significantly less than some
24 of the more complex methods.

25 The 1-CP method has several shortcomings, however. First, and foremost, is the
26 fact that the 1-CP method totally ignores the capacity/energy trade-off inherent in the
27 electric utility industry. That is, the sole criterion for assigning one hundred percent of
28 fixed capacity costs is the classes' relative contributions to load during a single hour of
29 the year. This method does not consider, in any way, the extent to which customers use
30 these facilities during the other 8,759 hours of the year. This may have severe
31 consequences because a utility's planning decisions regarding the amount and type of

1 generation capacity to build and install is predicated not only on the maximum system
2 load, but also on how customers demand electricity throughout the year, i.e., load
3 duration. To illustrate, if a utility had a peak load of 15,000 MW and its actual optimal
4 generation mix included an assortment of nuclear, coal, hydro, combined cycle and
5 combustion turbine units, the total cost of capacity is significantly higher than if the
6 utility only had to consider meeting 15,000 MW for 1 hour of the year. This is because
7 the utility would install the cheapest type of plant, (i.e., peaker units) if it only had to
8 consider one hour a year.

9 There are two other major shortcomings of the 1-CP method. First, the results
10 produced with this method can be unstable from year to year. This is because the hour in
11 which a utility peaks annually is largely a function of weather. Therefore, annual peak
12 load depends on when severe weather occurs. If this occurs on a weekend or holiday,
13 relative class contributions to the peak load will likely be significantly different than if
14 the peak occurred during a weekday. The other major shortcoming of the 1-CP method is
15 often referred to as the "free ride" problem. This problem can easily be seen with a
16 summer peaking utility that peaks about 5:00 p.m. Because street lights are not on at this
17 time of day, this class will not be assigned any capacity costs at all and enjoy a free ride
18 on the assignment of generation costs that this class requires.

19 **Summer and Winter Coincident Peak ("S/W Peak")** -- The S/W Peak method
20 was developed because some utilities' annual peak load occurs in the summer during
21 some years and in the winter during others. Because customers' usage and load
22 characteristics may vary by season, the S/W Peak attempts to recognize this
23 characteristic. This method is essentially the same as the 1-CP method except that two
24 hours of load are considered instead of one. This method has essentially the same
25 strengths and weaknesses as the 1-CP method, and in my opinion, is only marginally
26 more reasonable than the 1-CP method. However, it is my understanding that LG&E is
27 consistently a summer peaking utility. Therefore, this methodology is likely not well
28 suited in this instance.

29 **Twelve Monthly Coincident Peak ("12-CP")** -- Arithmetically, the 12-CP
30 method is essentially the same as the 1-CP method except that class contributions to each
31 monthly peak are considered. Although the 12-CP method bears little resemblance to

1 how utilities design and build their systems, the results produced by this method better
2 reflect the cost incidence of a utility's generation facilities.

3 Most electric utilities have distinct seasonal load patterns such that there are high
4 system peaks during the winter and summer months, and significantly lower system
5 peaks during the spring and autumn months. By assigning class responsibilities based on
6 their respective contributions throughout the year, consideration is given to the fact that
7 utilities will call on all of their resources during the highest peaks, and only use their
8 most efficient plants during lower peak periods. Therefore, the capacity/energy trade-off
9 is implicitly considered to a small extent under this method.

10 The major shortcoming of the 12-CP method is that accurate load data is required
11 by class throughout the year. This generally requires a utility to maintain on-going load
12 studies. However, once a system to record class load data is in place, the administration
13 and maintenance of such a system is not overly cumbersome for larger utilities.

14 **Peak and Average ("P&A")** -- The various P&A methodologies rest on the
15 premise that a utility's actual generation facilities are placed into service to meet peak
16 load and serve consumers demands throughout the entire year. Hence, the P&A method
17 assigns capacity costs partially on the basis of contributions to peak load and partially on
18 the basis of consumption throughout the year. Although there is not universal agreement
19 on how peak demands should be measured or how the weighting between Peak and
20 Average demands should be performed, many P&A studies use class contributions to
21 coincident-peak demand for the "peak" portion, while some studies weight the Peak and
22 Average loads based on the system coincident load factor and others give equal weight to
23 energy usage and peak demand.

24 The major strengths of the P&A method are that an attempt is made to recognize
25 the capacity/energy trade-off in the assignment of fixed capacity costs, and that data
26 requirements are minimal.

27 Although the recognition of the capacity/energy trade-off is admittedly arbitrary
28 under the P&A method, most other allocation methods also suffer to some degree of
29 arbitrariness.

30 **Average and Excess ("A&E")** -- The A&E method also considers both peak
31 demands and energy consumption throughout the year. However, the A&E method is

1 much different than the P&A method in both concept and application. The A&E method
2 recognizes class load diversity within a system, such that all classes do not call on the
3 utility's resources to the same degree, at the same times. Mechanically, the A&E method
4 weights average and excess demands based on system coincident load factor. Individual
5 class "excess" demands represent the difference between the class non-coincident peak
6 demand and its average annual demand. The classes' "excess" demands are then summed
7 to determine the system excess demand. Under this method, it is important to distinguish
8 between coincident and non-coincident demands. This is because if coincident, instead
9 of non-coincident, demands are used when calculating class excesses, the end result will
10 be exactly the same as that achieved under 1-CP method.

11 Although the A&E method bears virtually no resemblance to how generation
12 systems are designed, this method can produce fair and reasonable results for many
13 utilities. This is because no class will receive a free-ride under this method, and because
14 recognition is given to average consumption as well as to the additional costs imposed by
15 not maintaining a perfectly constant load.

16 A potential shortcoming of this method is that customers that only use power
17 during off-peak periods will be overburdened with costs. Under the A&E method, off-
18 peak customers will be assigned a higher percentage of capacity costs because their non-
19 coincident load factor may be very low even though they call on the utility's resources
20 only during cheap off-peak periods.

21 **Equivalent Peaker ("EP")** -- The EP method combines certain aspects of
22 traditional embedded cost methods with those used in forward-looking marginal cost
23 studies. The EP method often relies on planning information in order to classify
24 individual generating units as energy- or demand-related and considers the need for a mix
25 of base load intermediate and peaking generation resources.

26 The EP method has substantial intuitive appeal in that base load units that operate
27 with high capacity factors are allocated largely on the basis of energy consumption with
28 costs shared by all classes based on their usage, while peaking units that are seldom used
29 and only called upon during peak load periods are allocated based on peak demands to
30 those classes contributing to the system peak load. However, this method requires a
31 significant amount of data.

1 **Base-Intermediate-Peak (“BIP”)** -- The BIP method is an accepted allocation
2 approach that attempts to recognize the capacity/energy trade-off that actually exists
3 within a utility’s portfolio of generation assets. A utility’s base load units tend to run
4 during all periods of the year; i.e., both peak load periods as well as to satisfy energy
5 requirements in the most efficient manner possible during minimum demand periods
6 (e.g., during the middle of the night). Because base load units operate regardless of peak
7 requirements, they are most appropriately classified as energy-related. At the opposite
8 end of the spectrum are peaking units, such as combustion turbines. These units operate
9 with high variable costs and are only utilized to help meet peak period demands. As
10 such, peakers are classified as peak demand-related. Intermediate plants (e.g., many
11 combined cycle units) are not as efficient as large base load plants but more efficient than
12 peaking units. For this reason, Intermediate plants are not called upon (dispatched)
13 during periods of minimum (base) load but are dispatched before, and more frequently,
14 than peaker units. Therefore, Intermediate plants can be said to serve a dual purpose:
15 partially energy-related and partially demand-related. Intermediate plants are typically
16 classified as partially energy-related and partially demand-related based on their
17 respective capacity factors.² In my opinion, the BIP method is an excellent cost
18 allocation approach for many utilities as it captures the actual differences in the
19 capacity/energy trade-off that exist across a utility’s generation mix. The BIP method
20 may not be appropriate for utilities that purchase the majority of their energy needs or for
21 utilities with an inefficient mix of generating resources.

22
23 **Q. MR. WATKINS, YOU HAVE DISCUSSED THE STRENGTHS AND**
24 **WEAKNESSES OF THE MORE COMMON GENERATION ALLOCATION**
25 **METHODOLOGIES. ARE ANY OF THESE METHODS CLEARLY INFERIOR**
26 **IN YOUR VIEW?**

27 **A.** Yes. In my opinion the 1-CP and seasonal CP (such as 4-CP) methods do not
28 reasonably reflect cost causation for integrated electric utilities because these methods
29 totally ignore the utilization of a utility’s facilities. Perhaps the simplest way to explain
30 this is to consider that the methodology selected is used to allocate Generation plant

² Capacity factor is the ratio of average utilization (output) over a year to peak hour output.

1 investment. Generation investment costs vary from a low of a few hundred dollars per
2 KW of capacity for high running cost (energy cost) peakers to several thousand dollars
3 per KW for base load nuclear facilities with low running costs. If a utility were only
4 concerned with being able to meet peak load with no regard to running costs, it would
5 simply install inexpensive peakers. Under such an unrealistic system design, plant costs
6 would be much lower than in reality but running costs; i.e., variable fuel costs would be
7 astronomical, and would result in a higher overall cost to serve customers. The 1-CP and
8 seasonal CP methods totally ignore this very important fact.

9
10 **Q. MR. SEELYE HAS USED WHAT HE REFERS TO AS A MODIFIED BIP**
11 **METHOD TO ALLOCATE GENERATION COSTS. DID HE CALCULATE THE**
12 **BIP METHOD IN A REASONABLE MANNER?**

13 A. Mr. Seelye's Modified BIP method does not follow the generally accepted BIP
14 approach, and in fact, I have never seen Mr. Seelye's method used before. However, I
15 would be reluctant to say his approach is totally unreasonable.

16 Whereas Mr. Seelye's Modified BIP method does allocate a portion of generation
17 facilities based on energy and a portion on peak demands, his approach does not reflect
18 the actual mix of supply resources utilized by LG&E. At this point, it should be noted
19 that LG&E's and Kentucky Utilities' ("KU") generation resources are centrally
20 dispatched. Both Mr. Seelye and I have recognized this combined central dispatch in our
21 allocation studies. When I refer to LG&E's actual generation resources, I am referring to
22 the joint resources of LG&E and KU and not the individual legal ownership of these
23 plants for booking purposes.

24 The traditional BIP method is a supply-based approach that classifies generation
25 plant between energy-related and demand-related; i.e., it considers the actual supply
26 characteristics of a utility's generation portfolio. These supply based classifications are
27 then allocated to classes based on demand-side criteria (kWh usage and peak demand).

28 Mr. Seelye's approach ignores the actually supply-side characteristics of EON's
29 generation portfolio because it only considers relative differences in system usages and
30 demands. In fact, given LG&E's customers combined usage and demand profiles, Mr.
31 Seelye's approach would classify a utility's generation investment exactly the same

1 regardless of its actual portfolio mix of plants. Mr. Seelye's classification would be
2 identical if LG&E's portfolio mix was comprised entirely of base load units or entirely of
3 peaking units. In my opinion, this assumption (or result) is not consistent with the intent
4 of the BIP method. Namely, to recognize the capacity/energy tradeoff actually present in
5 a system.

6
7 **Q. HAVE YOU CONDUCTED A CLASS COST OF SERVICE STUDY USING A**
8 **TRADITIONAL BIP APPROACH?**

9 A. Yes.

10
11 **Q. PLEASE EXPLAIN HOW YOU CONDUCTED YOUR TRADITIONAL BIP**
12 **METHOD.**

13 A. During the discovery phase of this proceeding, LG&E provided the hourly loads
14 (output) of each EON generation unit during the test year. In other words, for each EON
15 generating unit, I was provided hourly output during the test year. With this data, I
16 examined the timing, frequency, and level of dispatch for each EON generating unit.
17 This examination revealed clear and distinct patterns for individual generating units.
18 Many units are clearly base load in nature, others are clearly peaker facilities, and some
19 units are neither base load or clearly peaker, but intermediate plants. From this
20 examination, I was able to classify each generating unit as base, intermediate, or peak.
21 Base load plants were classified as 100% energy-related, peaker units were classified as
22 100% demand-related, and intermediate plants were classified as partially energy-related
23 and partially demand-related based on their individual capacity factors. The results of my
24 BIP generation classification is presented in my Schedule GAW_3. It should be noted
25 that EON's hydroelectric facilities were classified as 100% energy-related as these
26 facilities are largely run-of-river or flood control dams. My BIP classification study
27 results in the following aggregate generation classification:

28 Energy-related: 82.78%

29 Demand-related: 17.22%

30

1 Q. WHAT ARE THE CLASS RATES OF RETURN ON RATE BASE AT CURRENT
 2 RATES UTILIZING YOUR TRADITIONAL BIP METHOD TO CLASSIFY
 3 GENERATION PLANT?

4 A. Individual class rates of return utilizing the traditional BIP classification method,
 5 compared to Mr. Seelye's Modified BIP are presented below:

6	7	OAG	Seelye
	Class	Traditional	Modified
		BIP	BIP
8	R	6.58%	5.45%
9	GS	13.96%	13.17%
10	LC-Pri.	8.75%	9.89%
	LC-Sec.	10.88%	10.42%
11	LC-TOD-Pri.	5.74%	7.47%
12	LC-TOD-Sec.	8.02%	9.58%
	LP-Pri.	9.87%	11.38%
13	LP-Sec.	9.46%	9.89%
14	LP-TOD-Trans.	4.66%	8.39%
	LP-TOD-Pri.	4.43%	7.16%
15	LP-TOD-Sec.	8.76%	10.94%
16	Sp. Contracts A	0.51%	8.71%
	Sp. Contracts B	1.98%	3.67%
17	Sp. Contracts C	0.49%	6.36%
18	PSL	3.91%	6.02%
	SLE	1.31%	11.75%
19	OL	7.03%	8.71%
20	TLE	-0.68%	2.07%
	STOD-Pr.	3.33%	4.24%
21	STOD-Sec.	4.61%	5.68%
22	<u>TOTAL COMPANY</u>	<u>7.77%</u>	<u>7.77%</u>

23
 24 B. Distribution

26 Q. AS WE MOVE DOWNSTREAM FROM GENERATION THROUGH
 27 TRANSMISSION, TO THE DISTRIBUTION SYSTEM, HOW HAS THE
 28 COMPANY ASSIGNED DISTRIBUTION COSTS TO RATE SCHEDULES AND
 29 CUSTOMER CLASSES?

30 A. Mr. Seelye has allocated Distribution plant and expenses partially on the basis of
 31 number of customers and partially on the basis of peak demand. I concur with Mr.

1 Seelye's selection of customer and demand allocators for Distribution plant. However,
2 there is often controversy regarding the portion of Distribution plant that should be
3 allocated on number of customers and the portion that should be allocated on demand.
4 This separation between customer-related and demand-related Distribution plant is
5 referred to as the classification of Distribution plant.

6
7 **Q. PLEASE EXPLAIN THE TERM "CLASSIFICATION OF DISTRIBUTION**
8 **PLANT."**

9 A. In the broadest sense, an embedded CCOSS is undertaken using a three-tiered
10 approach. First, costs are functionalized as Production, Transmission, Distribution,
11 General, and/or customer. These functionalized costs are then classified as energy,
12 demand, or customer-related. Finally, classified costs are then allocated to individual
13 classes. With respect to the classification of Distribution plant, it is generally recognized
14 that there are no energy-related costs. That is, the distribution system is designed to meet
15 localized peak demands. However, largely as a result of differences in customer densities
16 throughout a utility's service area, electric utility Distribution plant often is classified as
17 partially demand-related and partially customer-related.

18
19 **Q. WHY IS THE CLASSIFICATION OF DISTRIBUTION PLANT IMPORTANT IN**
20 **CCOSS ANALYSES?**

21 A. The classification of Distribution plant may be the single most important factor
22 affecting class rates of return. To illustrate the importance of this issue, consider the
23 Residential class: whereas this class may account for only 40% to 50% of peak demand,
24 it is responsible for a much higher percentage of the number of customers. Therefore,
25 given the level of investment associated with Distribution plant, wide variations in class
26 rates of return can result from different customer/demand classifications.

27
28 **Q. WHY ARE THE DIFFERENCES IN CUSTOMER DENSITIES IMPORTANT IN**
29 **THE ASSIGNMENT OF DISTRIBUTION COSTS TO INDIVIDUAL CLASSES?**

30 A. Possibly the best way to answer this question is by way of example. Consider two
31 different electric utilities: one similar to LG&E with urban, suburban, and rural service

1 areas and one similar to Consolidated Edison Company, which is mainly urban. With
2 respect to the utility with a rural service area, many miles of conductors and associated
3 plant must be installed in order to serve the demands of relatively few customers.
4 Conversely, many more customers are served on a per mile basis for the urban utility.
5 For the urban utility, it may be fair and reasonable to allocate Distribution plant solely on
6 the basis of peak demands. However, with respect to the utility with a rural service area,
7 such an allocation may be unfair if some classes are located mainly in urban or suburban
8 areas, while other classes of customers are located in urban, suburban, and rural areas.
9 As a result, many utilities classify Distribution plant as partially demand- related and
10 partially customer-related. In this manner, a portion of Distribution plant is allocated
11 based on a peak demand, and a portion allocated based on number of customers.
12

13 **Q. HOW DOES ONE DETERMINE HOW MUCH DISTRIBUTION PLANT**
14 **SHOULD BE CLASSIFIED AS DEMAND-RELATED AND HOW MUCH AS**
15 **CUSTOMER-RELATED?**

16 A. Once the decision is made that Distribution plant should be allocated considering
17 both peak demand and number of customers, there are two generally accepted methods
18 for determining the portions or percentages that should be allocated on each basis. These
19 two methods are known as the minimum size and zero-intercept approaches. Under both
20 methods, a study is conducted for each major plant account within the distribution
21 system. That is, each account is studied and assigned its own customer and demand
22 components.

23 The minimum size method rests on the premise that the minimum, or smallest
24 size, installed equipment makes up the distribution network to connect customers to the
25 distribution system, and that all larger sizes of equipment serve peak demands. In
26 practice, the cost per unit of the smallest sized installed equipment is determined. This
27 minimum cost per unit is then multiplied by the total number units in the system to arrive
28 at a total customer amount. The total customer amount is then divided by the total cost
29 for the account to determine the customer percentage. As the compliment, one minus the
30 customer percentage equals the demand percentage.

1 The zero-intercept method is similar to the minimum size method, except for the
2 determination of the minimum cost per unit. The zero-intercept method recognizes that
3 even the smallest installed piece of equipment has a demand component, because it too is
4 designed and installed to meet the peak load placed on that equipment. The zero-
5 intercept method attempts to arrive at the "theoretical" cost of a piece of plant or
6 equipment capable of carrying zero load. This is accomplished using statistical
7 regression techniques whereby the per unit costs of various sizes of equipment are
8 determined and a best fitting line is fitted into an equation form. The point at which the
9 fitted line intersects the cost axis at zero size is called the zero-intercept. The zero-
10 intercept cost then serves as the minimum, or zero size, cost per unit.

11
12 **Q. IS ONE METHOD PREFERRED OVER THE OTHER?**

13 A. In general, I prefer to use the zero-intercept method when possible and
14 appropriate. However, as with most aspects of ratemaking where there is not a
15 universally accepted formula, each approach has its advantages and disadvantages. The
16 major criticisms I have regarding the minimum size method is that this method tends to
17 overstate the customer percentage because even the smallest installed size is used to meet
18 some level of peak demand. The primary weaknesses of the zero-intercept method are
19 that more data and a good working knowledge of statistical linear regression analyses are
20 required, and sometimes there is no strong correlation between costs and sizes (capacity)
21 of distribution equipment.

22
23 **Q. HOW APPROPRIATE IS EITHER METHOD FROM A DESIGN OR**
24 **OPERATIONAL PERSPECTIVE?**

25 A. First and foremost, the classification of Distribution plant as partially customer-
26 related and partially demand-related results from the view that the allocation of these
27 plant items based solely on peak demands would not be equitable to some classes. I
28 emphasize this point, because many analysts "lose sight of the forest for the trees". When
29 classifying individual accounts within Distribution plant, analysts sometimes ignore (or
30 do not understand) how a distribution system is designed and connected.

1 There are three major factors the analyst should keep in mind when classifying
2 Distribution plant. First, there are often alternatives across plant and equipment. For
3 example, the need for a particular transformer may be erased if a larger size conductor is
4 used. Alternatively, fewer and smaller poles may be required if lighter conductors are
5 used. Second, and more importantly, is the fact that purchasing economies are usually
6 present. For example, there are dozens of various types of overhead conductors
7 manufactured. However, due to purchasing economies, a utility may only purchase a few
8 different sizes of conductor. This may result in some "over capacity", yet, the total
9 installed cost is less than if every segment of the system is optimally designed. Third,
10 most components of the distribution system are somewhat oversized for other reasons
11 such as safety, reliability, and growth uncertainty.

12 Although, these three factors are reflective of how distribution systems are
13 actually designed and installed, neither the minimum size nor the zero-intercept method
14 account for these factors. In fact, the presence of these three factors can seriously skew
15 the results of either method. If the weakness is not captured or recognized, inequitable
16 class allocations may result.

17
18 **Q. HOW DID MR. SEELYE CLASSIFY DISTRIBUTION PLANT BETWEEN**
19 **CUSTOMER-RELATED AND DEMAND-RELATED COMPONENTS?**

20 A. My Seelye claims to have conducted a zero-intercept analysis to develop
21 customer/demand classifications for distribution Overhead lines, underground lines, and
22 transformers. I take exception to Mr. Seelye's reference to his proposed classifications as
23 a "zero-intercept" derived study, and I disagree with his approach.

24
25 **Q. PLEASE EXPLAIN HOW AN INDUSTRY ACCEPTED ZERO-INTERCEPT**
26 **STUDY IS CONDUCTED.**

27 A. Under accepted industry practices, which are well documented in various cost
28 allocation manuals,³ the zero-intercept method is very straight-forward. First, various
29 types of equipment are separated by size and type. Next, historical accounting costs are

³ See for example the National Association of Regulatory Utility Commissions ("NARUC") Electric Utility Cost Allocation Manual, 1992, pages 92 through 94.

1 trended by vintage year to reflect cost differences over time. For each size and type of
2 equipment, the total dollars and total units (feet or number of units) are considered as
3 well as the capacity (size) of each type of equipment. Because the overall objective is to
4 estimate the cost of a “zero-size” piece of equipment, total costs are divided by total units
5 (feet or unit) for each type of equipment to derive an average cost per foot or per unit. A
6 regression model is then developed based on the following form:

$$7 \quad \text{cost/unit} = a + b (\text{size})$$

8
9 The resulting intercept (a) produces the estimated cost per unit of a “zero-size” piece of
10 equipment. This estimated zero-size cost per unit is then multiplied by the total units in
11 the system to estimate a zero-size total cost. The ratio of total zero size costs to trended
12 total actual costs represents the percentage of zero-size equipment and serves as the
13 customer percentage.

14 The above industry standard is in stark contrast to Mr. Seelye’s method presented
15 in his Seelye Exhibits 28, 29, and 30. Mr. Seelye refers to his approach as a “weighted
16 regression analysis.” Although this “weighted regression analysis” is a clever arithmetic
17 exercise, it violates theoretical statistical principles of linear regression and skews his
18 results. Moreover, on page 74 of his direct testimony, Mr. Seelye states:

19 “Like most electric utilities, the number of feet of conductors on LG&E’s
20 system is not uniformly distributed over all sizes of wire. For example,
21 LG&E has over 20 million feet of 1/0 overhead conductor, but only
22 10,421 feet of 1,000 MCM overhead conductor. For this reason, it was
23 necessary to use a weighted regression analysis, instead of a standard
24 least-squares analysis, in the determination of the zero intercept.”

25
26 It is interesting at best that Mr. Seelye finds LG&E’s system to be typical of other
27 utilities, yet, his approach varies dramatically from the industry practice that has been
28 used by countless utilities, Commissions, and analysts for decades.

29 To understand the bias in Mr. Seelye’s “weighted regression analysis,” we must
30 fully understand the mathematical model he derives. Using Overhead conductors as an
31 example, consider Mr. Seelye’s analysis presented in his Exhibit 28. Although not shown
32 in his exhibit, Mr. Seelye’s equation for Overhead conductors is:

$$33 \quad (\text{cost per foot} \times \text{feet}^{0.5}) = 0 + 2.2913(\text{feet}^{0.5}) + 0.00818(\text{capacity} \times \text{feet}^{0.5})$$

Notice that the equation's true intercept is forced to zero. However, if capacity is set to zero, the second term $[0.00818(\text{capacity} \times \text{feet}^{0.5})]$ becomes zero. If we then ask what is the cost for a foot of a zero capacity conductor we see that $\text{feet}^{0.5} = 1^{0.5} = 1$, such that the cost for one foot becomes \$2.2913. This is the zero-intercept used by Mr. Seelye.

To illustrate the bias in Mr. Seelye's analysis, consider the following hypothetical example of his approach for a system "not uniformly distributed over all sizes of wire":

Total	Cost Per Foot (y)	Capacity (x)	Feet (n)	$y(n^{0.5})$	$n^{0.5}$	$x(n^{0.5})$
350.00	3.50	2.00	100	35	10.00	20.00
250.00	5.00	4.00	50	35.355339	7.07	28.28
62,500.00	6.25	6.00	10,000	625	100.00	600.00
164.00	8.20	8.00	20	36.671515	4.47	35.78
99.50	9.95	10.00	10	31.464663	3.16	31.62

Under the correct, and accepted zero-intercept method, the following regression equation results:

$$\text{cost/feet} = 1.75 + 0.805(\text{size})$$

Therefore, a zero-size cost is estimated to be \$1.75 per foot. Using the same data, the following equation is produced using Mr. Seelye's approach:

$$\text{cost per foot} \times \text{feet}^{0.5} = 0 + 1.9815(\text{feet}^{0.5}) + 0.7120(\text{size} \times \text{feet}^{0.5})$$

Mr. Seelye's approach results in a zero cost per foot of \$1.9815 as compared to the industry accepted cost per foot of \$1.75.

Q. WHAT ARE THE RESULTS OF MR. SEELYE'S CLASSIFICATION OF DISTRIBUTION PLANT?

A. Mr. Seelye classifies distribution plant as follows:

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Account	Percentage	
	Customer	Demand
Overhead Conductors	60.56%	39.44%
Underground Conductors	62.65%	37.35%
Lines Transformers	48.75%	51.25%

Q. HAVE YOU CONDUCTED AN INDEPENDENT ANALYSIS TO CLASSIFY LG&E'S DISTRIBUTION PLANT?

A. Yes. Although I prefer to use the zero-intercept method when possible, the data is such that this method is not reliable in this instance. This is because the regression equations produce negative intercept values (illogical) and have low R² (poor fits). As a result, I conducted a minimum size analysis, which by its very nature tends to overstate the customer percentage of distribution plant. I used the same data relied upon by Mr. Seelye in his Exhibits 28, 29, and 30 and selected a reasonable minimum size for each account (Overhead conductors, underground conductors, and line transformers) based on the data provided. The following are my selected minimum sizes and resulting customer/demand classifications:

Account	Minimum Size	Percentage	
		Customer	Demand
Overhead Conductors	\$1.4869	39.3%	60.7%
Underground Conductors	\$1.658	20.1%	79.9%
Line Transformers	\$606.63	26.5%	73.5%

Q. WHAT ARE YOUR CCROSS RESULTS USING THESE CUSTOMER/DEMAND CLASSIFICATIONS?

A. My recommended distribution plant classifications coupled with a traditional BIP approach to classify generation resources are reflected in my recommended CCROSS. The detail of this CCROSS is provided in my Schedule GAW_4 and are summarized below:

		ROR At Current Rates	
Class	OAG Recommended	Seelye	
R	7.22%	5.45%	
GS	13.61%	13.17%	
LC-Pri.	8.07%	9.89%	
LC-Sec.	9.99%	10.42%	
LC-TOD-Pri.	5.17%	7.47%	
LC-TOD-Sec.	7.26%	9.58%	
LP-Pri.	9.15%	11.38%	
LP-Sec.	8.62%	9.89%	
LP-TOD-Trans.	4.66%	8.39%	
LP-TOD-Pri.	3.95%	7.16%	
LP-TOD-Sec.	7.99%	10.94%	
Sp. Contracts A	0.17%	8.71%	
Sp. Contracts B	1.50%	3.67%	
Sp. Contracts C	0.03%	6.36%	
PSL	4.29%	6.02%	
SLE	0.72%	11.75%	
OL	7.51%	8.71%	
TLE	-0.57%	2.07%	
STOD-Pri.	2.84%	4.24%	
STOD-Sec.	3.99%	5.68%	
TOTAL COMPANY	7.77%	7.77%	

As can be seen above, my CCOSS study which is based on accepted industry practices, produces significantly different results than those obtained by Mr. Seelye.

ELECTRIC CLASS REVENUE DISTRIBUTION

Q. PLEASE DESCRIBE LG&E'S PROPOSED DISTRIBUTION OF ITS REQUESTED OVERALL ELECTRIC REVENUE INCREASE TO INDIVIDUAL CUSTOMER CLASSES.

A. LG&E witness Seelye presents the Company's proposed distribution of its requested \$14.75 million revenue increase to customer classes. In large part, Mr. Seelye proposes that the Residential and lighting classes should be responsible for almost all of the entire rate increase proposed by LG&E. According to Mr. Seelye, this proposed increase is based on his CCOSS results. However, Mr. Seelye apparently ignored his own CCOSS study results for certain classes. For example, even though the LC-TOD

1 primary class is contributing slightly less than the current system average rate of return
 2 (7.47% compared to 7.77%), Mr. Seelye assigns no revenue increase to this class.
 3 Similar situations exist for the LP-TOD Primary and Special Contracts "A" classes.

4 A summary of LG&E's proposed revenue increase for each customer class is
 5 shown below:

Class	LG&E Proposed Electric Increase		
	Amount	Percent	Percent of Avg.
R	\$13,673,276	3.81%	230%
GS	228,601	0.18%	11%
LC-Pri.	0	0.00%	0%
LC-Sec.	0	0.00%	0%
LC-TOD-Pri.	0	0.00%	0%
LC-TOD-Sec.	0	0.00%	0%
LP-Pri.	0	0.00%	0%
LP-Sec.	0	0.00%	0%
LP-TOD-Trans.	-8,461	-0.03%	-2%
LP-TOD-Pri.	0	0.00%	0%
LP-TOD-Sec.	0	0.00%	0%
Sp. Contracts A	-145,782	-2.05%	-124%
Sp. Contracts B	0	0.00%	0%
Sp. Contracts C	0	0.00%	0%
PSL	199,009	3.39%	205%
SLE	0	0.00%	0%
OL	462,434	5.12%	309%
TLE	9,376	4.12%	249%
STOD-Pri.	45,334	6.01%	363%
STOD-Sec.	287,867	5.27%	318%
TOTAL COMPANY	\$14,751,654	1.66%	100%

23 **Q. MR. WATKINS, IN YOUR OPINION ARE LG&E'S PROPOSED CUSTOMER**
 24 **CLASS REVENUE INCREASES REASONABLE?**

25 A. No.

27 **Q. DO YOU HAVE AN ALTERNATIVE REVENUE INCREASE DISTRIBUTION**
 28 **TO THAT PROPOSED BY MR. SEELYE?**

29 A. Yes, I do. Using the results of my CCOSS as a guide, and also considering
 30 principles of gradualism, fairness and equity, I propose an equitable and cost based
 31 mechanism to assign class revenue increases at LG&E's requested overall revenue level.

1 My proposed revenue distribution is presented in my Schedule GAW_5 and results in the
 2 following class increases:

		OAG Proposed Electric Increase		
Class	Amount	Percent	Percent of Avg.	
R	\$6,987,615	1.95%	118%	
GS	1,059,478	0.83%	50%	
LC-Pri.	165,183	1.66%	100%	
LC-Sec.	1,812,934	1.24%	75%	
LC-TOD-Pri.	389,305	2.07%	125%	
LC-TOD-Sec.	344,591	1.66%	100%	
LP-Pri.	89,466	1.24%	75%	
LP-Sec.	452,458	1.24%	75%	
LP-TOD-Trans.	543,277	2.07%	125%	
LP-TOD-Pri.	1,933,032	2.07%	125%	
LP-TOD-Sec.	44,764	1.66%	100%	
Sp. Contracts A	176,845	2.49%	150%	
Sp. Contracts B	270,913	2.49%	150%	
Sp. Contracts C	71,528	2.49%	150%	
PSL	121,435	2.07%	125%	
SLE	4,805	2.49%	150%	
OL	149,549	1.66%	100%	
TLE	5,649	2.49%	150%	
STOD-Pri.	15,622	2.07%	125%	
STOD-Sec.	113,204	2.07%	125%	
TOTAL COMPANY	\$14,751,654	1.66%	100%	

19
 20 My specific electric revenue allocation methodology is as follows, with the actual
 21 calculations provided in Schedule GAW_5.

22 First, I recognize class cost of service and the concept of gradualism. In doing so,
 23 I recommend a graduated scale of increases such that no class receives a rate decrease
 24 and that all class increases are limited to a range of 50% of the system average percentage
 25 increase to 150% of the system average increase. In order to recognize the higher than
 26 system average ROR's provided by certain classes, I increased these higher than average
 27 ROR classes less than the system average percentage. Similarly, those classes with low
 28 rates of return were increased by a higher percentage. Finally, due to its size relative to
 29 the system, the Residential class was treated as a residual.

1 Q. MR. WATKINS, PLEASE PROVIDE YOUR RECOMMENDED SCALE BACK
2 METHOD TO ASSIGN CLASS REVENUE INCREASES SHOULD THE
3 COMMISSION AUTHORIZE AN OVERALL REVENUE REQUIREMENT
4 INCREASE LESS THAN THAT PROPOSED BY LG&E OR AN OVERALL
5 DECREASE AS RECOMMENDED BY THE OAG.

6 A. I recommend that my customer class revenue increases be reduced proportionally
7 downward.

8

9 **RESIDENTIAL ELECTRIC RATE DESIGN**

10

11 Q. PLEASE DESCRIBE LG&E'S CURRENT RESIDENTIAL RATE STRUCTURE?

12 A. Currently, Residential rates include a fixed monthly customer charge of \$5.00 and
13 a flat kWh energy charge.

14

15 Q. WITH RESPECT TO THE CURRENT RESIDENTIAL CUSTOMER CHARGE
16 OF \$5.00, DOES LG&E PROPOSE AN INCREASE TO THIS FIXED MONTHLY
17 RATE?

18 A. Yes. LG&E proposes an increase to the monthly Residential customer charge
19 from the current \$5.00 level to \$8.23.

20

21 Q. DOES MR. SEELYE PROVIDE ANY JUSTIFICATION FOR THE LARGE
22 INCREASE IN THE FIXED CUSTOMER CHARGE?

23 A. As part of his CCROSS, Mr. Seelye functionalizes all costs that include an
24 assignment of overheads to each functional and classification category. Within Mr.
25 Seelye's CCROSS, these fully allocated costs that are classified as "customer" equate to a
26 monthly residential "customer allocated cost" of \$16.43.

27

28 Q. DO YOU AGREE WITH MR. SEELYE'S "CUSTOMER COST" ANALYSIS?

29 A. No. Mr. Seelye's customer cost analysis includes not only those costs that are
30 directly attributable to customers but also assigns a significant level of corporate

1 overhead costs. In my opinion, any customer cost analysis used as a basis for
2 establishing fixed monthly customer charges should only include direct customer costs.

3
4 **Q. HAVE YOU CONDUCTED SUCH A DIRECT CUSTOMER COST ANALYSIS?**

5 A. Yes. The results of my direct customer costs analysis are presented in my
6 Schedule GAW_6 and result in a monthly Residential customer cost of \$2.98.

7
8 **Q. WHAT IS YOUR RECOMMENDATION AS TO RESIDENTIAL CUSTOMER
9 CHARGES IN THIS CASE?**

10 A. Given that my direct customer cost analysis results in a monthly customer cost of
11 \$2.98, I recommend maintaining the current monthly customer charge of \$5.00 regardless
12 of any increase or decrease in revenue requirement authorized by this Commission.

13
14 **Q. DOES LG&E'S PROPOSED 65% INCREASE TO THE RESIDENTIAL
15 CUSTOMER CHARGE PROMOTE OR DISCOURAGE CONSERVATION?**

16 A. LG&E's proposed increased reliance on customer charge revenue will discourage
17 conservation from its electric customers as a larger percentage of customers' bills will be
18 collected from a fixed monthly charge that does not vary with usage. As such, the
19 Company proposed 65% increase to the fixed customer charge would send a price signal
20 to customers that is contrary to conservation efforts and encourage additional usage of
21 electricity.

22
23 **NATURAL GAS OPERATIONS**

24
25 **Q. HAVE YOU EXAMINED MR. SEELYE'S NATURAL GAS CLASS COST OF
26 SERVICE STUDY?**

27 A. Yes.

28
29 **Q. WHAT METHODOLOGY DID MR. SEELYE USE FOR PURPOSES OF HIS
30 NATURAL GAS CCROSS?**

1 A. Mr. Seelye used what is known as the Peak Responsibility method to allocate
2 Mains costs. Furthermore, Mr. Seelye separated LG&E's Mains into "high pressure" and
3 "low pressure" systems. Finally, Mr. Seelye classified both high pressure and lower
4 pressure Mains as partially customer-related and partially demand-related.
5

6 **Q. DO YOU HAVE ANY MAJOR DISAGREEMENTS WITH MR. SEELYE'S**
7 **NATURAL GAS CCOSS?**

8 A. Yes.
9

10 **Q. PLEASE OUTLINE YOUR DISAGREEMENTS.**

11 A. I disagree with Mr. Seelye's use of the Peak Demand method to allocate
12 distribution Mains (low and high pressure).
13

14 **Q. PLEASE EXPLAIN PEAK RESPONSIBILITY METHOD.**

15 A. The Peak Responsibility method is similar in concept to the 1-CP method
16 previously discussed for the electric industry. The major difference is that whereas the 1-
17 CP electric method is generally based on actual loads and demands, the Peak
18 Responsibility method is based on estimated loads at design day temperatures. In other
19 words, design day demands are not known as historical loads, but rather estimate class
20 demand under the most extreme weather conditions.
21

22 **Q. IS THERE A METHOD THAT IS PREFERRED OVER THE PEAK**
23 **RESPONSIBILITY METHOD FOR LG&E'S NATURAL GAS OPERATIONS?**

24 A. Yes. The Peak and Average method is far superior for LG&E's natural gas
25 operations.
26

27 **Q. PLEASE EXPLAIN WHY THE PEAK AND AVERAGE METHOD IS**
28 **PREFERRED.**

29 A. There are several reasons why the Peak and Average Method is preferred and why
30 the Peak Responsibility method is not appropriate LG&E. The first is the recognition of
31 how and why natural gas consumers are customers of LG&E. That is, customers connect

1 to LG&E's system in order to meet their natural gas needs throughout the year. Indeed,
2 the Company's Mains are utilized each and every day of the year and recognition of
3 annual usage (throughput) is a logical basis for cost assignment.

4 Another shortcoming of the Peak Responsibility method using design day demand
5 is that the "design day" is a moving target over time. That is, whereas natural gas Mains
6 are planned and installed to serve customers in excess of fifty years into the future, design
7 day demand (as used by Mr. Seelye) is a function of the mix, usage per customer, and
8 number of customers today. In addition LG&E's commercial centers have obviously
9 changed over the last few decades. Yet, Mr. Seelye assumes the entire Company system
10 was optimally designed and installed to meet today's mix and level of customers.

11
12 **Q. HAVE YOU CONDUCTED A CLASS COST OF SERVICE STUDY THAT**
13 **UTILIZES THE PEAK AND AVERAGE METHOD?**

14 A. Yes. I have accepted all other aspects (allocators and classifications) of Mr.
15 Seelye's natural gas CCOSS except for his use of the Peak Responsibility method. It
16 should be noted that while I disagree conceptually with Mr. Seelye that any portion of
17 distribution Mains should be classified as partially customer related, I have accepted his
18 classification since his recommended customer percentages of Mains are relatively
19 small.⁴

20
21 **Q. PLEASE PRESENT THE RESULTS OF YOUR NATURAL GAS CCOSS**
22 **UTILIZING THE PEAK AND AVERAGE METHOD.**

23 A. The following is a summary of class rates of return at current rates utilizing my
24 recommended Peak and Average method to allocate distribution Mains. Also provided
25 are Mr. Seelye's results using his Peak Responsibility method.

26
27
28
29

⁴ Mr. Seelye customer percentage of high pressure mains is 6.97% while high customer percentage of low pressure mains is 14.82%.

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Class	ROR at Current Rates	
	OAG Peak & Average	Seelye Peak Responsibility
RSG	3.53%	2.77%
CGS	6.42%	5.37%
IGS	6.15%	6.52%
AAGS	2.36%	14.65%
FT	0.37%	18.73%
SP	-3.73%	22.04%
Total Company	3.88%	3.88%

The details of my recommended natural gas CCOSS are provided in my Schedule GAW_7.

NATURAL GAS CLASS REVENUE DISTRIBUTION

Q. PLEASE DESCRIBE LG&E’S PROPOSED DISTRIBUTION OF ITS REQUESTED OVERALL NATURAL GAS REVENUE INCREASE TO INDIVIDUAL CUSTOMER CLASSES.

A. LG&E witness Seelye presents the Company’s proposed distribution of its requested \$29.76 million revenue increase to customer classes. In large part, Mr. Seelye proposes that the Residential class should be responsible for almost all of the entire rate increase proposed by LG&E. According to Mr. Seelye, this proposed increase is based on his CCOSS results.

A summary of LG&E’s proposed natural gas revenue increase for each customer class is shown below:

Class	LG&E Proposed Natural Gas Increase		
	Amount	Percent	Percent of Avg.
RGS	\$25,482,608	37.00%	125%
CGS	4,012,950	16.75%	57%
IGS	55,838	3.03%	10%
AAGS	23,962	9.77%	33%
FT	175,907	4.10%	14%
SP	11,200	0.70%	2%
TOTAL COMPANY	\$29,762,465	29.53%	100%

1 **Q. MR. WATKINS, IN YOUR OPINION ARE LG&E'S PROPOSED NATURAL**
2 **GAS CUSTOMER CLASS REVENUE INCREASES REASONABLE?**

3 A. No.

5 **Q. DO YOU HAVE AN ALTERNATIVE REVENUE INCREASE DISTRIBUTION**
6 **TO THAT PROPOSED BY MR. SEELYE?**

7 A. Yes, I do. Using the results of my CCOSS as a guide, and also considering Mr.
8 Seelye's CCOSS results in conjunction with the principles of gradualism, fairness and
9 equity, I propose an equal percentage increase for all classes regardless of the overall
10 increase in revenue requirement authorized by the Commission. My proposed across the
11 board class revenue increases are as follows using LG&E's required overall increase of
12 \$29.76 million:

Class	OAG Proposed Natural Gas Increase	
	Amount	Percent
RGS	\$20,334,498	29.53%
CGS	7,073,326	29.53%
IGS	544,098	29.53%
AAGS	72,380	29.53%
FT	1,265,374	29.53%
SP	472,789	29.53%
TOTAL COMPANY	\$29,762,465	29.53%

22 **RESIDENTIAL NATURAL GAS RATE DESIGN**

24 **Q. PLEASE DESCRIBE LG&E'S CURRENT RESIDENTIAL RATE STRUCTURE?**

25 A. Currently, Residential rates include a fixed monthly customer charge of \$8.50 and
26 a flat base rate usage charge.

28 **Q. WITH RESPECT TO THE CURRENT RESIDENTIAL CUSTOMER CHARGE**
29 **OF \$8.50, DOES LG&E PROPOSE AN INCREASE TO THIS FIXED MONTHLY**
30 **RATE?**

1 A. Yes. LG&E proposes an increase to the monthly Residential customer charge
2 from the current \$8.50 level to \$13.65.

3

4 **Q. DOES MR. SEELYE PROVIDE ANY JUSTIFICATION FOR THE LARGE**
5 **INCREASE IN THE FIXED CUSTOMER CHARGE?**

6 A. As part of his CCOSS, Mr. Seelye functionalizes all costs that include an
7 assignment of overheads to each functional and classification category. Within Mr.
8 Seelye's CCOSS, these fully allocated costs that are classified as "customer" equate to a
9 monthly residential "customer allocated cost" of \$13.71.

10

11 **Q. DO YOU AGREE WITH MR. SEELYE'S "CUSTOMER COST" ANALYSIS?**

12 A. No. Mr. Seelye's customer cost analysis includes not only those costs that are
13 directly attributable to customers but also assigns a significant level of corporate
14 overhead costs. In my opinion, any customer cost analysis used as a basis for
15 establishing fixed monthly customer charges should only include direct customer costs.

16

17 **Q. HAVE YOU CONDUCTED SUCH A DIRECT CUSTOMER COST ANALYSIS?**

18 A. Yes. The results of my direct customer costs analysis are presented in my
19 Schedule GAW_8 and result in a monthly Residential customer cost of \$6.96.

20

21 **Q. WHAT IS YOUR RECOMMENDATION AS TO RESIDENTIAL CUSTOMER**
22 **CHARGES IN THIS CASE?**

23 A. Given the direct customer cost analysis that results in a monthly customer cost of
24 \$6.96. I recommend maintaining the current monthly customer charge of \$8.50
25 regardless of any increase in revenue requirement authorized by this Commission.

26

27 **Q. DOES LG&E'S PROPOSED 61% INCREASE TO THE RESIDENTIAL**
28 **CUSTOMER CHARGE PROMOTE OR DISCOURAGE CONSERVATION?**

29 A. LG&E's proposed increased reliance on customer charge revenue will discourage
30 conservation from its natural gas customers as a larger percentage of customers' bills will
31 be collected from a fixed monthly charge that does not vary with usage. As such, the

1 Company's proposed 61% increase to the fixed customer charge would send a price
2 signal to customers that is contrary to conservation efforts and encourage additional
3 usage of natural gas.

4

5 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

6 A. Yes.

BACKGROUND & EXPERIENCE PROFILE
GLENN A. WATKINS
VICE PRESIDENT/SENIOR ECONOMIST
TECHNICAL ASSOCIATES, INC.

EDUCATION

1982 - 1988	M.B.A., Virginia Commonwealth University, Richmond, Virginia
1980 - 1982	B.S., Economics; Virginia Commonwealth University
1976 - 1980	A.A., Economics; Richard Bland College of The College of William and Mary, Petersburg, Virginia

POSITIONS

Jul. 1995-Present	Vice President/Senior Economist, Technical Associates, Inc.
Mar. 1993-1995	Vice President/Senior Economist, C. W. Amos of Virginia
Apr. 1990-Mar. 1993	Principal/Senior Economist, Technical Associates, Inc.
Aug. 1987-Apr. 1990	Staff Economist, Technical Associates, Inc., Richmond, Virginia
Feb. 1987-Aug. 1987	Economist, Old Dominion Electric Cooperative, Richmond, Virginia
May 1984-Jan. 1987	Staff Economist, Technical Associates, Inc.
May 1982-May 1984	Economic Analyst, Technical Associates, Inc.
Sep. 1980-May 1982	Research Assistant, Technical Associates, Inc.

EXPERIENCE

I. Public Utility Regulation

- A. Costing Studies -- Conducted, and presented as expert testimony, numerous embedded and marginal cost of service studies. Cost studies have been conducted for electric, gas, telecommunications, water, and wastewater utilities. Analyses and issues have included the evaluation and development of alternative cost allocation methods with particular emphasis on ratemaking implications of distribution plant classification and capacity cost allocation methodologies. Distribution plant classifications have been conducted using the minimum system and zero-intercept methods. Capacity cost allocations have been evaluated using virtually every recognized method of allocating demand related costs (e.g., single and multiple coincident peaks, non-coincident peaks, probability of loss of load, average and excess, and peak and average).
Embedded and marginal cost studies have been analyzed with respect to the seasonal and diurnal distribution of system energy and demand costs, as well as cost effective approaches to incorporating energy and demand losses for rate design purposes. Economic dispatch models have been evaluated to determine long range capacity requirements as well as system marginal energy costs for ratemaking purposes.
- B. Rate Design Studies -- Analyzed, designed and provided expert testimony relating to rate structures for all retail rate classes, employing embedded and marginal cost studies. These rate structures have included flat rates, declining block rates, inverted block rates, hours use of demand blocking, lighting rates, and interruptible rates. Economic development and special industrial rates have been developed in recognition of the competitive environment for specific customers. Assessed alternative time differentiated rates with diurnal and seasonal pricing structures. Applied Ramsey (Inverse Elasticity) Pricing to marginal costs in order to adjust for embedded revenue requirement constraints.

GLENN A. WATKINS

- C. Forecasting and System Profile Studies -- Development of long range energy (Kwh or Mcf) and demand forecasts for rural electric cooperatives and investor owned utilities. Analysis of electric plant operating characteristics for the determination of the most efficient dispatch of generating units on a system-wide basis. Factors analyzed include system load requirements, unit generating capacities, planned and unplanned outages, marginal energy costs, long term purchased capacity and energy costs, and short term power interchange agreements.
- D. Cost of Capital Studies -- Analyzed and provided expert testimony on the costs of capital and proper capital structures for ratemaking purposes, for electric, gas, telephone, water, and wastewater utilities. Costs of capital have been applied to both actual and hypothetical capital structures. Cost of equity studies have employed comparable earnings, DCF, and CAPM analyses. Econometric analyses of adjustments required to electric utilities cost of equity due to the reduced risks of completing and placing new nuclear generating units into service.
- E. Accounting Studies -- Performed and provided expert testimony for numerous accounting studies relating to revenue requirements and cost of service. Assignments have included original cost studies, cost of reproduction new studies, depreciation studies, lead-lag studies, Weather normalization studies, merger and acquisition issues and other rate base and operating income adjustments.

II. Transportation Regulation

- A. Oil and Products Pipelines -- Conducted cost of service studies utilizing embedded costs, I.C.C. Valuation, and trended original cost. Development of computer models for cost of service studies utilizing the "Williams" (FERC 154-B) methodology. Performed alternative tariff designs, and dismantlement and restoration studies.
- B. Railroads -- Analyses of costing studies using both embedded and marginal cost methodologies. Analyses of market dominance and cross-subsidization, including the implementation of differential pricing and inverse elasticity for various railroad commodities. Analyses of capital and operation costs required to operate "stand alone" railroads. Conducted cost of capital and revenue adequacy studies of railroads.

III. Insurance Studies

Conducted and presented expert testimony relating to market structure, performance, and profitability by line and sub-line of business within specific geographic areas, e.g. by state. These studies have included the determination of rates of return on Statutory Surplus and GAAP Equity by line - by state using the NAIC methodology, and comparison of individual insurance company performance vis a vis industry Country-Wide performance.

Conducted and presented expert testimony relating to rate regulation of workers compensation, automobile, and professional malpractice insurance. These studies have included the determination of a proper profit and contingency factor utilizing an internal rate of return methodology, the development of a fair investment income rate, capital structure, cost of capital.

Other insurance studies have included testimony before the Virginia Legislature regarding proper regulatory structure of Credit Life and P&C insurance; the effects on competition and prices resulting from proposed insurance company mergers, maximum and minimum expense multiplier limits, determination of specific class code rate increase limits (swing limits); and investigation of the reasonableness of NCCP's administrative assigned risk plan and pool expenses.

GLENN A. WATKINS

IV. Anti-Trust and Commercial Business Damage Litigation

Analyses of alleged claims of attempts to monopolize, predatory pricing, unfair trade practices and economic losses. Assignments have involved definitions of relevant market areas (geographic and product) and performance of that market, the pricing and cost allocation practices of manufacturers, and the economic performance of manufacturers' distributors.

Performed and provided expert testimony relating to market impacts involving automobile and truck dealerships, incremental profitability, the present value of damages, diminution in value of business, market and dealer performance, future sales potential, optimal inventory levels, fair allocation of products, financial performance; and business valuations.

MEMBERSHIPS AND CERTIFICATIONS

Member, Association of Energy Engineers (1998)
Certified Rate of Return Analyst, Society of Utility and Regulatory Financial Analysts (1992)
Member, American Water Works Association
National Association of Business Economists
Richmond Association of Business Economists
National Economics Honor Society

OAG Adjustment to Reflect Electric Weather Normalization

(12 Months Ended April 30, 2008)

	(1)	(2)	(3)
	OAG Test Year Adjustment to kWh	Energy Rate	OAG Test Year Revenue Adjustment (1) * (2)
Residential Rate R	(110,959,088)	\$0.06404	(\$7,105,820)
General Service Rate GS			
Single Phase	(5,744,499)	0.07621	(437,788)
Three Phase	(10,694,430)	0.07621	(815,023)
Total	(16,438,929)		(1,252,811)
Large Commercial Rate LC			
Secondary	(16,593,235)	0.02702	(448,349)
Primary	(1,270,282)	0.02702	(34,323)
Secondary Small Time of Day	(699,053)	0.03289	(22,992)
Primary Small Time of Day	(108,092)	0.03289	(3,555)
Total	(18,670,661)		(509,219)
Large Commercial Rate LCTOD			
Secondary	(1,735,249)	0.02706	(46,956)
Primary	(2,228,694)	0.02706	(60,308)
Total	(3,963,943)		(107,264)
Industrial Power Rate LP			
Secondary	(2,196,464)	0.02357	(51,771)
Primary	(453,706)	0.02357	(10,694)
Total	(2,650,170)		(62,465)
Industrial Power Rate LPTOD	-		0
Secondary	-	0.02362	0
Primary	-	0.02362	0
Special Contracts	-		0
Fort Knox	-	0.02365	0
DuPont	-	0.02379	0
Louisville Water Company	-	0.02364	0
Lighting			
Street Lighting Rate SLE	-	0.00000	0
Traffic Lighting Rate TLE	-	0.00000	0
Public Street Lighting Rate PSL	-	0.00000	0
Outdoor Lighting Rate OL	-	0.00000	0
Total Company	(152,682,791)		(\$9,037,579)
Variable Expenses	(152,682,791)	\$0.01955	(\$2,984,949)

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

Residential

Cooling Month (CDD)	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Customer Per Degree Day ⁴	Average Customers	kWh Adjustment Model R-square
	Actual ^{1/}	Average ^{2/}	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	1,60079
								358,712
								(110,959,088)
								92.0941%

Heating Month	Actual ^{1/}	Average ^{2/}	Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	kWh Per Customer Per Degree Day ⁴	Average Customers	kWh Adjustment Model R-square
November	480	500							
December	712	833							
January	935	934							
February	787	769							
March	569	558							
	3,483	3,615	347	3,962	3,268	No	479		

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

GSS Secondary 1 Phase

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ^{4/}	kWh Adjustment	Model R-square
	Actual ^{1/}	Average ^{2/}	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	29,728.30 (5,744,499) 91.1264%

Heating Season (HDD)		Heating Season (HDD)		No	479
Heating Month					
November	480	500			
December	712	833			
January	935	954			
February	787	769			
March	569	558			
	3,483	3,615	347	3,962	3,268

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

GS Secondary 3 Phase

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	55,344.64 (10,694.430) 88.8312%

Heating Month	Heating Season (HDD)		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²	Upper Limit	Lower Limit				
November	480	500						
December	712	833						
January	935	954						
February	787	769						
March	569	558						
	3,483	3,615	347	3,962	3,268	No	479	

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LC Secondary

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	KWh Per Degree Day ⁴	KWh Adjustment	Model R-square
	Actual ^{1/}	30-year Average ^{2/}	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	85,871.49 (16,593,235) 92.2827%

Heating Month	Heating Season (HDD)		Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	KWh Per Degree Day ⁴	KWh Adjustment	Model R-square
	Actual ^{1/}	30-year Average ^{2/}							
November	480	500							
December	712	833							
January	935	954							
February	787	769							
March	569	558							
	3,483	3,615	347	3,962	3,268	No	479		

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LC Primary

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ^u	kWh Adjustment Model R-square			
	Actual ^v	Average ^z	Upper Limit	Lower Limit				Adjustment		
June	376	306								
July	396	438								
August	629	407								
September	350	204								
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	6,573.82	(1,270,282)	88.6240%

Heating Month	Heating Season (HDD)		Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	kWh Per Degree Day ^u	kWh Adjustment Model R-square
	Actual ^v	Average ^z						
November	480	500						
December	712	833						
January	935	954						
February	787	769						
March	569	558						
Seasonal Aggregate	3,483	3,615	347	3,962	3,268	No	479	

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC

OAG kWh Weather Adjustment
(June through September, 2007)

LC STOD Secondary

Cooling Month	Degree Days			Normal Weather Band			Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	30-year Average ²	30-year Std Dev ³	Upper Limit	Lower Limit	Adjustment				
June	376	306								
July	396	438								
August	629	407								
September	350	204								
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	3,617.66	(699.053)	89.1158%

Heating Month	Heating Season (HDD)			Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	30-year Average ²	30-year Std Dev ³							
November	480	500								
December	712	833								
January	935	954								
February	787	769								
March	569	558								
	3,483	3,615	347	3,962	3,268	No	479			

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LC STOD Primary

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment Model R-square
	Actual ¹	Average ²	Upper Limit	Lower Limit			
June	376	306					
July	396	438					
August	629	407					
September	350	204					
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193) 559.38 (108.092) 92.0316%

Heating Season (HDD)							
Heating Month							
November	480	500					
December	712	833					
January	935	954					
February	787	769					
March	569	558					
	3,483	3,615	347	3,962	3,268	No	479

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LC Secondary

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	8,980.07 (1,735,249) 93.4691%

Heating Month	Heating Season (HDD)		Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²							
November	480	500							
December	712	833							
January	935	954							
February	787	769							
March	569	558							
	3,483	3,615	347	3,962	3,268	No	479		

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LC Primary

Cooling Season (CDD)	Degree Days		Normal Weather Band		Boundary Limit Less Actual	kWh Per Degree Day ^{4/}	kWh Adjustment	Model R-square
	Actual ^{1/}	Average ^{2/}	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	11,533.69
								(2,228.694)
								60.3444%

Heating Season (HDD)	Degree Days		Normal Weather Band		Boundary Limit Less Actual	kWh Per Degree Day ^{4/}	kWh Adjustment	Model R-square
	Actual ^{1/}	Average ^{2/}	Upper Limit	Lower Limit				
November	480	500						
December	712	833						
January	935	954						
February	787	769						
March	569	558						
	3,483	3,615	347	3,962	3,268	No	479	

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC
 OAG kWh Weather Adjustment
 (June through September, 2007)

LP Secondary

Cooling Month	Degree Days		Normal Weather Band		Adjustment	Boundary Limit less Actual	kWh Per Degree Day ¹ kWh Adjustment	Model R-square
	Actual ²	Average ³	Upper Limit Deg ⁴	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	11,366.90 (2,196,464) 94.5151%

Heating Season (HDD)	
Heating Month	HDD
November	480
December	712
January	935
February	787
March	569
	3,483

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

LOUISVILLE GAS AND ELECTRIC

OAG kWh Weather Adjustment
(June through September, 2007)

LP Primary

Cooling Month	Degree Days		Normal Weather Band		Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²	Upper Limit	Lower Limit				
June	376	306						
July	396	438						
August	629	407						
September	350	204						
Seasonal Aggregate	1,751	1,356	202	1,558	1,154	Yes	(193)	2,347.97 (453,706) 87.8536%

Heating Month	Heating Season (HDD)		Upper Limit	Lower Limit	Adjustment	Boundary Limit less Actual	kWh Per Degree Day ⁴	kWh Adjustment	Model R-square
	Actual ¹	Average ²							
November	480	500							
December	712	833							
January	935	954							
February	787	769							
March	569	558							
	3,483	3,615	347	3,962	3,268	No	479		

1/ Per NOAA, National Climatic Data Center
 2/ 30-year Average 1978 to 2007
 3/ Standard deviation of Seasonal Degree Days.
 4/ Linear regression model developed based on daily observations of kWh usage, degree days, and binary variable for Weekdays and Holidays.

Eon Generation Unit Classification

Unit	Type	Gross Plant	Percent Energy	Demand	Gross Plant	
					Energy	Demand
Trimble 1	Base	\$598.442	100%	0%	\$598.442	\$0.000
Mill Creek 3	Base	\$272.591	100%	0%	\$272.591	\$0.000
Mill Creek 4	Base	\$494.022	100%	0%	\$494.022	\$0.000
Mill Creek 1	Base	\$153.584	100%	0%	\$153.584	\$0.000
Mill Creek 2	Base	\$121.972	100%	0%	\$121.972	\$0.000
Ghent 1	Base	\$341.335	100%	0%	\$341.335	\$0.000
Cane Run 6	Base	\$131.258	100%	0%	\$131.258	\$0.000
Ghent 4	Base	\$365.800	100%	0%	\$365.800	\$0.000
Ghent 3	Base	\$490.572	100%	0%	\$490.572	\$0.000
Cane Run 5	Base	\$89.856	100%	0%	\$89.856	\$0.000
Cane Run 4	Base	\$70.514	100%	0%	\$70.514	\$0.000
Brown 2	Base	\$43.716	100%	0%	\$43.716	\$0.000
Brown 3	Base	\$145.556	100%	0%	\$145.556	\$0.000
Brown 1	Base	\$53.103	100%	0%	\$53.103	\$0.000
Ghent 2	Base	\$148.052	100%	0%	\$148.052	\$0.000
Green River 4	Intermediate	\$42.268	63%	37%	\$26.629	\$15.639
Tyrone 3	Intermediate	\$24.555	69%	31%	\$16.943	\$7.612
Green River 3	Intermediate	\$19.529	68%	32%	\$13.280	\$6.249
Trimble 5	Peak	\$63.319	0%	100%	\$0.000	\$63.319
Trimble 6	Peak	\$55.910	0%	100%	\$0.000	\$55.910
Trimble 7	Peak	\$52.341	0%	100%	\$0.000	\$52.341
Trimble 8	Peak	\$51.951	0%	100%	\$0.000	\$51.951
Trimble 9	Peak	\$52.052	0%	100%	\$0.000	\$52.052
Trimble 10	Peak	\$52.023	0%	100%	\$0.000	\$52.023
Brown 6	Peak	\$58.868	0%	100%	\$0.000	\$58.868
Brown 7	Peak	\$58.872	0%	100%	\$0.000	\$58.872
Brown 8	Peak	\$35.458	0%	100%	\$0.000	\$35.458
Brown 9	Peak	\$45.866	0%	100%	\$0.000	\$45.866
Brown 10	Peak	\$28.591	0%	100%	\$0.000	\$28.591
Brown 11	Peak	\$43.497	0%	100%	\$0.000	\$43.497
Brown 5	Peak	\$45.189	0%	100%	\$0.000	\$45.189
Paddys Run 13	Peak	\$64.098	0%	100%	\$0.000	\$64.098
Paddys Run 11	Peak	\$1.826	0%	100%	\$0.000	\$1.826
Cane Run 11	Peak	\$2.797	0%	100%	\$0.000	\$2.797
Paddys Run 12	Peak	\$3.162	0%	100%	\$0.000	\$3.162
Zorn 1	Peak	\$1.901	0%	100%	\$0.000	\$1.901
Haefling 1,2 & 3	Peak	\$5.345	0%	100%	\$0.000	\$5.345
Ohio Falls 1- 8	Hydro	\$29.739	100%	0%	\$29.739	\$0.000
Dix Dam 1,2, &3	Hydro	\$11.033	100%	0%	\$11.033	\$0.000
Total		\$4,370.563			\$3,617.997	\$752.566
Percent					82.78%	17.22%

Louisville Gas and Electric
Electric Cost of Service Study
(Summary)

Account Description	Cost of Service Summary - Pro-Forma										
	Total	R	GS	LC PH	LC Spc	LC-TOD PH	LC-TOD Spc	LP-PH	LP-Spc	LP-TOD Trans	
Total Operating Revenue	\$932,384,516	\$373,638,974	\$132,330,260	\$10,108,728	\$152,488,710	\$19,884,331	\$21,888,647	\$7,079,501	\$39,755,892	\$28,577,022	
Pro-Forma Adjustments:											
Eliminate Unbilled Revenue	\$785,000	\$15,916	\$14,501	\$3,371	\$127,979	\$18,281	\$18,148	\$6,010	\$2,369	\$23,152	
Mismatch in Fuel Cost Recovery	\$50,610,166	\$18,181,851	\$9,065,994	\$20,822	\$8,524,118	\$1,294,637	\$1,328,972	\$433,653	\$2,444,957	\$2,133,998	
To Reflect a Full Year of the FAC Roll-	\$31,805	11,413	3,812	390	5,357	814	840	273	1,411	1,341	
Remove ECR Revenue	\$10,168,132	\$4,121,348	\$1,403,109	\$106,483	\$1,656,315	\$207,917	\$28,442	\$7,318	\$16,461	\$292,091	
To Reflect a Full Year of the ECR Roll-	\$1,215,475	\$483,141	\$177,482	\$2,739	\$188,067	\$24,678	\$28,282	\$8,252	\$48,847	\$34,947	
Remove OR-System ECR Revenues	\$748,547	\$299,898	\$83,189	\$8,550	\$28,618	\$17,441	\$18,218	\$5,789	\$2,113	\$8,341	
Eliminate Brokered Sales	\$2,000,594	\$717,978	\$238,783	\$24,641	\$38,632	\$1,184	\$2,850	\$7,442	\$8,725	\$4,355	
Eliminate Retail Rebate Act	\$9,763,357	\$3,828,178	\$1,424,100	\$104,115	\$1,561,721	\$202,489	\$225,717	\$74,745	\$402,469	\$288,444	
Eliminate DSM Revenue	\$4,381,617	\$3,773,223	\$287,092	\$14,001	\$188,346	\$49,730	\$49,326	\$0	\$0	\$0	
Year End Revenue Adjustment	\$764,611	\$248,004	\$682,582	\$352,824	\$337,723	\$0	\$0	\$448,017	\$687,363	\$0	
Weather Normalized Electric Operating Revenues	\$14,374,348	\$5,158,258	\$1,722,881	\$178,327	\$2,421,028	\$97,761	\$79,728	\$123,187	\$371,898	\$088,100	
Adjustment for Merger Successors	\$19,478,242	\$8,545,841	\$3,050,692	\$223,971	\$3,453,144	\$57,142	\$81,153	\$81,153	\$72,420	\$13,772	
VOT Successor Revenues	\$7,375,580	\$2,959,727	\$1,076,971	\$7,977	\$1,203,482	\$52,180	\$17,163	\$8,189	\$04,075	\$18,031	
Sub-Totals	\$41,959,678	\$14,917,139	\$4,427,898	\$194,007	\$6,592,320	\$1,088,280	\$1,088,809	\$120,884	\$234,398	\$2,342,801	
Total Pro-Forma Operating Revenue	\$890,424,838	\$358,721,834	\$127,902,362	\$9,970,639	\$145,907,390	\$18,799,071	\$20,799,838	\$7,200,384	\$39,414,465	\$28,234,221	
Operating Expenses											
Operation and Maintenance Expenses	617,893,122	249,482,157	78,350,602	7,011,919	87,842,894	14,580,253	15,100,551	4,892,000	25,504,421	23,140,669	
Depreciation and Amortization Expenses	\$108,253,300	\$46,673,705	\$13,219,132	\$13,386	\$15,710,180	\$2,253,340	\$2,383,813	\$751,645	\$4,066,589	\$3,145,181	
Regulatory Credits	\$1,556,535	\$590,759	\$189,899	\$18,671	\$259,678	\$38,548	\$39,788	\$12,755	\$68,728	\$60,615	
Accrual Expense	\$1,389,410	\$827,678	\$188,483	\$16,558	\$229,078	\$34,387	\$35,478	\$11,579	\$59,535	\$54,007	
Property and Other Taxes	\$17,783,458	\$7,548,257	\$2,181,428	\$181,473	\$262,488	\$374,889	\$395,519	\$124,947	\$87,720	\$50,400	
Amortization of Investment Tax Credit	\$3,910,848	\$1,867,476	\$477,476	\$40,088	\$57,476	\$82,818	\$87,974	\$17,170	\$14,810	\$17,170	
Other Expenses	\$455,265	\$184,068	\$55,704	\$64,884	\$87,140	\$9,879	\$10,208	\$3,227	\$17,354	\$13,754	
State and Federal Income Taxes	\$42,786,678	\$18,033,682	\$10,736,660	\$383,825	\$8,718,033	\$455,937	\$842,744	\$282,134	\$1,983,564	\$787,732	
Specific Assignment of Intangible Credit	\$8,286,793	\$3,286,793	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Allocation of Intangible Credits	\$5,768,793	\$2,822,318	\$814,344	\$85,325	\$1,092,405	\$128,637	\$136,889	\$42,306	\$257,629	\$167,751	
Adjustments to Operating Expenses:											
Eliminate mismatch in fuel cost recovery	\$50,782,206	\$18,227,007	\$4,087,782	\$23,055	\$8,554,776	\$1,290,485	\$1,341,781	\$435,213	\$2,529,610	\$2,141,674	
Remove ECR expenses	\$10,942,070	\$4,439,404	\$1,687,665	\$14,679	\$1,789,061	\$223,963	\$254,590	\$83,285	\$448,801	\$314,600	
Refract full year of ECR roll-in	8,811,442	\$3,574,988	\$1,286,489	82,348	\$1,435,865	\$80,333	\$85,087	67,058	\$31,259	\$253,342	
Eliminate brokered sales expenses	\$8,168	\$28,051	\$0	\$859	\$13,168	\$2,000	\$2,065	\$0	\$0	\$0	
Eliminate DSM Expenses	\$3,860,848	\$3,324,763	\$861,782	\$12,337	\$165,861	\$43,820	\$43,463	\$0	\$0	\$0	
Year end Expense adjustment:	\$427,834	\$137,701	\$370,885	\$87,482	\$189,040	\$0	\$0	\$250,777	\$390,348	\$0	
Adjustment to annualize depreciation expense	18,722,848	7,209,249	2,041,884	\$8,576	\$2,428,025	\$348,057	\$368,179	\$116,101	\$27,210	\$27,210	
Depreciation adjustment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Labor adjustment	2,781,071	\$1,249,221	\$354,993	\$7,014	\$387,887	\$58,855	\$58,217	\$18,632	\$98,918	\$81,433	
Adjustment for position and post Ret Exp. (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Stem savings adjustment	\$1,213,674	\$850,013	\$143,914	\$4,525	\$86,584	\$0	\$0	\$3,153	\$21,022	\$5	
Adjustment to eliminate advertising expense (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Amortization of rate case expenses	\$187,842	\$74,951	\$22,859	\$2,105	\$29,361	\$4,378	\$4,537	\$1,470	\$7,670	\$6,913	
Amortization of ESM rate expenses	\$10,656	\$4,288	\$1,554	\$114	\$1,737	\$221	\$246	\$82	\$439	\$315	
Adjustment for FERC assessment fee (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment for injuries and damages (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment for postage rate increase (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment to property tax expense (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment to sales and use tax (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment factor property tax expense (See Functional Assignment)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Adjustment for EPC settlement changes	\$678,288	\$243,407	\$81,287	\$9,320	\$114,242	\$17,364	\$17,918	\$6,812	\$30,002	\$28,600	
Adjustment to reflect modification of OVEC demand charges	\$3,145,310	\$1,128,708	\$376,987	\$39,882	\$529,755	\$83,470	\$83,089	\$29,958	\$139,452	\$132,633	

Louisville Gas and Electric
Electric Cost of Service Study
(Summary)

Account Description	Total	R	GS	LC-PH	LC-SE	LC-TOD PH	LC-TOD Sec	LP-PH	LP-SEC	LP-TOD Trans
Adjustment for MISD schedule to expenses	1,380,439	513,597	165,941	16,328	225,378	-121,557	34,643	11,214	56,502	53,500
Rebates weather-normalized electric sales margins	-4,751,178	-1,704,691	-559,490	-58,282	-800,226	0	-125,512	-40,710	-210,713	-200,395
Adjustment for IT prepaid amortization (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0
Adjustment to remove WEALMFA repurchase power credits	-390,012	-118,426	-39,854	-4,048	-55,593	-8,443	-8,718	-2,828	-14,036	-13,915
Adjustment to remove WEALMFA repurchase power credits	1,757,257	707,167	256,318	18,729	288,467	36,447	40,828	13,453	72,438	51,916
Adjustment to remove reclassified capital costs	6,394,978	2,171,162	786,921	57,531	879,544	111,896	124,126	41,302	222,394	159,367
Adjustment for new credit facilities bank fees	158,347	83,725	23,097	1,689	29,815	3,284	3,691	1,212	6,527	4,678
Adjustment to reflect unutilized vehicle fuel costs	-39,076,690	-14,575,177	-4,501,569	-283,078	-6,595,767	-1,002,007	-1,048,674	-77,273	-2,055,359	-1,738,382
Total Expense Adjustments	750,897,245	300,574,599	98,081,994	8,484,233	119,530,402	18,830,090	17,883,320	6,008,758	30,627,590	23,714,907
Total Operating Expenses	139,657,494	55,147,245	20,820,378	1,489,405	28,378,987	1,968,981	2,518,518	1,161,608	5,888,884	2,519,314
Net Operating Income - Pro-Forma	1,826,018,111	778,697,445	222,937,770	18,748,124	289,733,655	38,737,284	40,855,816	12,914,555	89,488,583	55,046,323
Less: ECR Rate Base	13,285,433	6,319,847	1,653,245	161,847	2,244,282	308,375	323,165	102,865	569,652	487,294
Adjustment to Reflected Depreciation Reserve	-16,722,648	-7,209,349	-2,041,684	-168,675	-2,428,025	-348,057	-368,179	-116,101	-627,210	-485,813
Cost Working Capital	-788,378	-314,671	-98,358	-8,840	-123,228	-16,375	-18,041	-6,189	-32,192	-29,042
Adjusted Net Cost Rate Base	1,795,221,634	763,863,698	219,146,303	18,416,881	263,944,019	38,061,477	40,145,230	12,889,421	89,290,510	54,084,243
	7.77%	7.22%	13.81%	8.07%	9.98%	5.17%	7.28%	9.15%	8.82%	4.65%

ROR

Louisville Gas and Electric
Electric Cost of Service Study
(Summary)

Account Description	Special											STOD-Ph	STOD-Sec
	LP-TOD P4	LP-TOD Sac	Contracts-A	Contracts-B	Contracts-C	PSL	SLE	OL	TLE	STOD-Ph	STOD-Sec		
Total Operating Revenue	\$100,268,170	\$2,830,994	\$7,781,860	\$11,613,536	\$3,075,165	\$8,222,827	\$207,196	\$8,619,655	\$280,300	\$802,735	\$5,941,047		
Pro-Forma Adjustments:													
Eliminate Unbilled Revenue	-81,748	-2,364	-6,533	-9,286	-2,488	-5,782	-173	-8,143	-242	-645	-4,838		
Mismatch in Fuel Cost Recovery	-7,069,940	-171,322	-580,778	-833,978	-228,555	-14,926	-14,926	-228,555	-14,639	-55,880	-391,012		
To Reflect a Full Year of the FAC Roll-	4,443	108	365	524	154	128	9	144	9	35	246		
Remove ECR Revenue	-1,041,665	-30,811	-83,494	-122,024	-32,095	-72,651	-2,182	-103,494	-3,076	-8,170	-62,039		
To Reflect a full Year of the ECR Roll-	124,841	3,587	9,971	14,601	3,840	8,693	281	12,384	368	878	7,423		
Remove Old System ECR Revenues	-89,196	-2,249	-5,778	-11,145	-2,501	-1,644	-121	-1,846	-177	-208	-5,431		
Eliminate Booked Sales	279,470	6,772	22,958	32,967	8,050	8,050	590	9,035	679	2,208	15,456		
Eliminate Rate Refund Accr	1,016,728	29,399	81,251	115,498	30,945	71,912	2,152	101,281	3,013	8,019	60,171		
Eliminate DSM Revenue	0	0	0	0	0	0	0	0	0	-1,280	-8,840		
Year End Revenue Adjustment	0	\$0	\$0	\$0	\$0	\$0	\$0	\$395,736	\$0	\$0	\$148,674		
Weather Normalized Electric Operating Revenues	2,008,011	-48,659	-164,953	-238,887	-65,028	-57,896	-4,239	-64,914	-4,157	-15,862	-111,056		
Adjustment for Merger Surecredit	1,173,992	63,668	0	250,635	68,805	165,484	4,654	219,227	8,505	17,039	128,914		
VDI Surecredit Revenues	768,918	22,775	61,468	87,255	23,360	54,246	1,626	76,416	2,275	5,836	44,822		
Sub-Total	-\$8,922,367	-\$128,996	-\$685,501	-\$711,822	-\$196,821	-\$358,666	-\$13,827	-\$407,269	-\$52,973	-\$48,346	-\$474,558		
Total Pro-Forma Operating Revenue	\$93,343,802	\$2,701,998	\$7,116,358	\$10,901,714	\$2,878,344	\$5,863,941	\$193,369	\$8,026,923	\$227,327	\$754,388	\$5,466,489		
Operating Expenses													
Operation and Maintenance Expenses	78,634,424	1,933,859	6,489,889	9,415,402	2,607,114	3,115,202	175,155	3,703,250	223,086	827,407	4,408,845		
Depreciation and Amortization Expenses	\$11,662,978	\$289,208	\$662,001	\$1,478,521	\$421,113	\$1,418,788	\$25,584	\$1,874,282	\$32,395	\$66,632	\$654,167		
Regulatory Credits	-\$161,840	-\$4,976	-\$16,818	-\$25,133	\$7,060	-\$3,750	-\$380	-\$8,608	-\$416	-\$1,654	-\$11,895		
Accretion Expense	\$180,059	\$4,439	\$15,003	\$22,422	\$8,316	\$5,182	\$339	\$5,964	\$372	\$16,078	\$10,530		
Property and Other Taxes	\$1,942,882	\$46,632	\$160,431	\$246,622	\$89,933	\$218,694	\$4,197	\$285,223	\$5,232	\$17,078	\$115,210		
Amortization of Investment Tax Credit	-\$429,195	-\$2,854	-\$35,441	-\$54,304	\$15,448	\$47,870	\$927	\$63,008	\$1,156	\$3,552	\$25,451		
Other Expenses	-\$60,237	-\$1,282	-\$4,147	-\$8,343	-\$1,803	-\$5,691	-\$109	-\$7,372	-\$137	-\$415	-\$2,974		
State and Federal Income Taxes	\$1,773,538	\$120,897	-\$87,602	-\$97,199	-\$73,078	\$267,853	-\$3,048	\$806,964	\$1,079	\$3,250	\$109,302		
Specific Assignment of Intangible Credits	-\$3,875,468	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Allocation of Intangible Credits	\$591,288	\$15,960	\$19,959	\$81,236	\$12,015	\$0	\$0	\$0	\$0	\$0	\$41,880		
Adjustments to Operating Expenses:													
Eliminate mismatch in fuel cost recovery	-7,069,969	-171,838	-582,887	-833,978	-228,777	-14,980	-14,980	-228,777	-14,650	-56,051	-392,419		
Remove ECR expenses	-1,122,054	-33,389	-89,838	-133,441	-34,572	-78,258	-2,350	-111,481	-3,313	-8,801	-66,826		
Reflect full year of ECR roll-in	903,569	26,727	72,425	105,847	27,840	63,019	1,892	89,773	2,668	7,087	53,814		
Eliminate Booked sales expenses	-10,820	-265	-897	-1,288	-354	-315	-23	-353	-23	-86	-804		
Year end Expense adjustment	0	0	0	0	0	0	0	0	0	0	-7,813		
Adjustment to annualize depreciation expense	1,801,496	46,217	148,593	228,376	65,046	219,150	-827	221,513	-24,311	-1,110	-83,221		
Depreciation adjustment	0	0	0	0	0	0	0	0	0	0	0		
Labor adjustment	292,899	7,483	24,048	38,202	10,211	15,876	749	19,615	1,472	2,387	16,988		
Adjustment for pension and post Ret Exp. (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Storm damage adjustment	-41,919	0	-3,154	-6,155	-1,895	-8,059	-184	-10,119	-239	-383	-3,214		
Adjustment to eliminate advertising expense (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Amortization of ESM audit expenses	23,583	581	1,937	2,828	784	979	53	1,171	70	188	1,323		
Amortization of ESM audit expenses	-1,110	-32	-89	-128	-34	-78	-2	-111	-3	-9	-66		
Adjustment for FERC assessment fee (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment for injuries and damages (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment for postage rate increase (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment to property tax expense (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment to sales and use tax (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment ratar property tax expense (See Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0		
Adjustment for ECR settlement charges	-94,753	-2,256	-7,784	-11,177	-3,068	-2,729	-200	-3,063	-195	-749	-5,740		
Adjustment to reflect reallocation of OVEC demand charges	-439,381	-10,547	-36,095	-51,828	-14,230	-12,655	-929	-14,205	-910	-3,471	-24,590		
Adjustment for MISO schedule 10 expenses	-663,711	-16,093	-54,522	-78,292	-21,484	-19,117	-1,401	-21,456	-1,374	-5,243	-36,707		
Adjusted weather normalized electric sales margin	0	0	0	0	0	0	0	0	0	0	0		
Adjustment for TI prepaid amortization (See Functional Assignment)	-48,101	-1,117	-3,787	-5,788	-1,493	-1,328	-97	-1,480	-62	-364	-2,650		
Adjustment to remove IML/MLPA reactive power credits	182,997	5,291	14,824	20,788	5,570	12,943	387	18,229	642	1,443	10,630		
Adjustment for new credit facilities bank fees	691,817	16,246	44,897	63,821	17,099	39,736	1,189	55,985	1,685	4,431	33,249		
Adjustment to reflect annualized vehicle fuel costs	16,490	477	1,318	1,873	502	1,166	35	1,643	49	130	976		
Total Expense Adjustments	-\$5,555,097	-\$129,584	-\$459,488	-\$640,891	-\$173,643	-\$146,289	-\$12,402	-\$310,843	-\$33,337	-\$44,219	-\$386,249		
Total Operating Expenses	85,531,682	2,299,107	7,087,807	10,528,142	2,876,336	4,913,949	190,274	6,853,535	230,428	799,039	5,000,180		

Louisville Gas and Electric
Electric Cost of Service Study
(Summary)

Account Description	LP-TOD P1	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SLE	OL	TLE	STOD-P1	STOD-Sec
Adjustment for MISO schedule 70 expenses	177,670	4,372	14,601	22,098	6,222	4,531	332	6,068	362	1,454	10,188
Reflected weather normalized electric sales margins	-663,711	-10,083	-54,822	-70,292	-21,404	-10,117	-1,401	-21,458	-1,374	-5,243	-30,707
Adjustment for IT proposal amortization (500 Functional Assignment)	0	0	0	0	0	0	0	0	0	0	0
Adjustment to remove NRE/MRPA reactive power credits	-46,101	-1,117	-3,767	-5,438	-1,493	-1,328	-97	-1,480	-5	-354	-2,550
Adjustment to remove reclassified capital costs	182,997	5,291	14,824	20,786	5,570	12,943	367	10,228	642	1,443	10,830
Adjustment for new credit facilities bank fees	561,817	16,246	44,997	63,821	17,009	39,726	1,189	65,065	1,665	4,431	33,249
Adjustment to reflect annualized vehicle fuel costs	18,490	477	1,318	1,873	592	1,169	35	1,843	49	130	978
Total Expense Adjustments	-5,655,097	-129,694	-468,488	-640,891	-173,643	-148,289	-12,402	-310,843	-33,337	-44,219	-399,249
Total Operating Expenses	85,631,662	2,299,107	7,087,807	10,628,142	2,879,530	4,913,949	190,274	6,835,535	239,428	708,039	5,000,180
Net Operating Income - Pre-Forma	7,812,110	402,890	28,551	373,672	2,007	949,993	3,095	2,101,388	-3,101	49,349	466,309
Net Cost Rate Base	201,059,368	6,133,028	16,589,206	25,394,220	7,214,231	22,416,070	436,111	29,502,891	548,040	1,661,445	11,901,168
Less: ECR Rate Base	1,582,242	39,603	102,466	187,705	44,389	29,170	2,138	32,740	3,136	13,714	96,347
Adjustment to Reflected Depreciation Reserve	-1,801,489	-46,317	-148,693	-228,378	-65,048	-218,160	-3,933	-289,604	-4,990	-14,829	-107,223
Cash Working Capital	-86,980	-2,439	-8,129	-11,668	-3,289	-4,108	-223	-4,915	-284	-790	-5,555
Adjusted Net Cost Rate Base	187,578,648	5,043,469	16,330,028	24,948,271	7,101,627	22,163,642	428,787	28,175,832	539,620	1,632,015	11,692,031

ROR 3.95% 7.90% 0.17% 1.50% 0.03% 4.25% 0.72% 7.51% -0.57% 2.84% 3.89%

Louisville Gas and Electric
Electric Cost of Service Study
(Rate Base)

Acct. No.	Account Description	Total	R	GS	LC-PR	LC-SEC	LC-TOD-PR	LC-TOD-SEC	LP-PR	LP-SEC	LP-TOD-TRNS
RATE BASE											
Plant-In-Service											
	Intangible Plant										
301.00	ORGANIZATION	\$2,240	956	274	23	329	47	50	76	85	67
302.00	FRANCHISE AND CONSENTS	100	43	12	1	15	2	2	1	4	3
302.00	SOFTWARE - COMMON	21,661,729	9,238,946	2,643,469	221,681	3,180,203	457,965	483,243	152,641	622,014	647,327
301.00	ORGANIZATION - COMMON	61,999	26,455	7,670	635	9,106	1,311	1,384	437	2,354	1,854
302.00	FRANCHISE AND CONSENTS - COMMON	3,108	1,328	378	32	457	66	69	22	118	53
	Total Intangible Plant	21,719,248	9,287,628	2,651,734	222,331	3,180,109	459,392	484,749	153,116	624,575	648,344
Production Plant											
	Steam Production Generation	\$1,946,427,003									
330	Hydro Baseboard Generation	\$29,728,482									
340	Other Production Generation	\$225,598,172									
	Total Production	2,204,761,657									
	Energy Related	1,825,101,724	654,945,811	218,750,531	22,398,074	307,396,309	45,694,366	48,213,816	15,628,388	80,942,400	76,956,142
	Demand Related	379,659,932	177,409,143	50,179,406	4,074,927	57,860,292	8,242,324	6,415,511	2,535,501	14,000,899	9,748,479
	Total Production Plant	2,204,761,657	832,354,954	268,929,937	26,463,001	365,256,561	54,936,690	54,629,327	18,173,889	94,973,296	86,704,615
Transmission Plant											
	Transmission Plant	\$255,091,099	96,303,622	31,115,211	3,091,771	42,260,208	6,595,179	8,552,017	2,102,720	10,998,412	10,031,728
	Total Transmission Plant	255,091,099	96,303,622	31,115,211	3,091,771	42,260,208	6,595,179	8,552,017	2,102,720	10,998,412	10,031,728
Distribution Plant											
390-392	Total Accounts 360-392 OVERHEAD LINES	298,850,108	\$94,845,074	46,108,848	12,252,224	1,004,584	13,664,781	1,083,870	1,091,071	697,942	3,499,854
	Primary:	237,601,861	53,377,531	91,002,989	9,442,654	11,298	605,180	3,164	11,761	9,943	73,218
	Customer Demand	144,224,320	70,114,530	18,631,107	1,627,671	20,763,848	3,016,734	3,012,477	1,061,313	5,321,988	0
	Secondary	51,248,247	20,140,561	17,478,480	2,037,498	0	130,583	0	2,536	0	15,789
	Customer Demand	31,107,688	12,514,814	4,833,748	0	3,180,151	0	423,212	0	788,821	0
398-397	UNDERGROUND LINES	157,900,818	24,918,578	21,617,166	2,519,953	3,016	181,504	844	3,138	2,654	19,640
	Primary:	123,978,007	69,058,428	48,157,187	12,796,511	1,045,190	14,261,353	2,072,000	2,098,077	728,947	3,655,330
	Customer Demand	33,922,811	6,818,485	5,917,251	880,784	0	44,208	0	859	0	5,349
	Secondary	108,478,013	27,104,328	18,245,821	4,211,875	0	2,779,566	0	388,747	0	688,178
398	TRANSFORMERS - POWER POOL	28,692,435	24,900,009	2,902,636	0	188,030	0	3,812	0	22,507	0
	Customer Demand	79,785,578	55,181,057	12,397,888	0	8,182,181	0	1,065,461	0	2,025,747	0
399	SERVICES	24,660,897	17,978,330	2,943,624	0	3,111,656	0	69,101	0	512,735	0
370	METERS	34,388,049	23,419,433	9,483,513	12,827	715,927	78,765	20,685	36,888	294,116	10,487
371	CUSTOMER INSTALLATION	0	0	0	0	0	0	0	0	0	0
373	STREET LIGHTING	67,421,503	0	0	0	0	0	0	0	0	0
374	ASSET RETIRE OBLIGATIONS DIST PLANT	57,674	24,796	4,659	201	3,220	394	450	140	809	0
	Total Distribution Plant	776,183,225	452,161,650	93,047,071	3,608,688	67,790,181	7,453,761	9,049,163	2,536,607	18,884,687	11,929
General Plant											
	Total General Plant	16,654,627	7,108,647	2,033,387	170,625	2,448,231	352,288	371,712	117,412	632,296	487,926
	TOTAL COMMON PLANT	114,473,234	47,565,749	13,609,625	1,141,363	18,373,119	2,357,813	2,487,951	765,884	4,232,100	3,332,733

Louisville Gas and Electric
Electric Cost of Service Study
(Rate Base)

Acct. No.	Account Description	Total	R	GS	LC Pnt	LC Sec	LC-TOD Pnt	LC-TOD Sec	LP Pnt	LP Sec	LP-TOD Trans
106	COMPLETED CONSTR NOT CLASSIFIED	0	0	0	0	0	0	0	0	0	0
106	PLANT HELD FOR FUTURE USE	640,014	378,080	79,475	3,017	59,893	5,982	7,562	2,121	14,127	10
105	PLANT HELD FOR FUTURE USE	22,013,472	8,310,859	2,885,135	266,220	3,645,909	648,516	668,416	181,457	948,282	856,703
	PROPERTY HELD UNDER CAPITAL LEASE	2,878,958	1,086,127	350,922	34,531	478,817	71,898	73,895	23,715	123,929	113,139
	OTHER	0	0	0	0	0	0	0	0	0	0
	Total General Plant	153,697,305	64,447,181	18,758,844	1,813,657	22,993,550	3,330,265	3,508,535	1,110,570	5,650,714	4,809,511
	Construction Work in Progress										
	CWIP Production	148,037,359	65,140,457	17,816,620	1,753,077	24,189,905	3,839,354	3,751,485	1,203,963	6,281,829	5,743,862
	CWIP Transmission	24,338,418	9,187,632	2,989,480	286,102	4,031,745	608,988	626,081	200,608	1,048,328	997,056
	CWIP Distribution Plant	92,898,770	54,116,536	11,375,621	431,900	8,113,405	856,191	1,082,321	303,816	2,822,081	1,428
	CWIP Common Plant	28,593,016	11,332,334	3,242,808	271,925	3,990,825	591,739	592,743	187,229	1,008,290	794,009
	Total CWIP	289,848,563	128,776,859	35,402,227	2,749,030	40,242,878	6,653,891	6,051,631	1,895,403	10,370,298	7,493,355
	TOTAL PLANT-IN-SERVICE	3,411,422,631	1,484,634,813	418,802,798	34,269,477	601,498,610	72,242,287	76,216,779	24,077,102	129,631,943	102,207,128
	TOTAL UTILITY PLANT	3,704,271,084	1,684,211,771	461,905,022	37,219,480	641,739,489	77,906,968	82,267,410	25,972,805	140,002,239	109,703,482
	Accumulated Reserve for Depreciation										
	Kintangee Plant	14,293,347	6,089,889	1,745,095	148,348	2,092,268	302,324	319,011	100,785	542,948	427,330
	Indiana Plant	14,293,347	6,089,889	1,745,095	148,348	2,092,268	302,324	319,011	100,785	542,948	427,330
	Production Plant	1,059,890,133	399,037,534	128,927,134	12,888,571	175,108,878	28,537,053	27,148,546	9,712,706	45,530,028	41,566,876
	Sub-69kV	1,056,890,133	399,037,534	128,927,134	12,898,571	175,108,878	28,537,053	27,148,546	9,712,706	45,530,028	41,566,876
	Transmission Plant	137,604,053	51,949,113	18,784,512	1,651,814	22,786,470	3,428,720	3,634,382	1,134,273	5,927,491	5,411,427
	Sub-69kV	137,604,053	51,949,113	18,784,512	1,651,814	22,786,470	3,428,720	3,634,382	1,134,273	5,927,491	5,411,427
	Distribution Plant	385,781,787	230,969,472	48,489,456	1,840,134	34,567,807	3,047,860	4,811,290	1,293,570	8,615,101	6,083
	Sub-69kV	385,781,787	230,969,472	48,489,456	1,840,134	34,567,807	3,047,860	4,811,290	1,293,570	8,615,101	6,083
	General Plant	61,283,746	28,141,308	7,479,778	627,273	8,998,391	1,295,813	1,387,334	431,897	2,325,898	1,831,612
	General & Common Plant	61,283,746	28,141,308	7,479,778	627,273	8,998,391	1,295,813	1,387,334	431,897	2,325,898	1,831,612
	Sub-69kV	61,283,746	28,141,308	7,479,778	627,273	8,998,391	1,295,813	1,387,334	431,897	2,325,898	1,831,612
	TOTAL ACCUMULATED RESERVE FOR DEPRECIATION	1,886,983,886	712,793,412	203,402,975	16,961,941	242,668,734	35,011,790	36,980,642	11,673,211	62,242,068	45,243,328
	Rate Base Adjustments and Working Capital										
	Working Capital Assets										
	Cash Working Capital - Operation and Maintenance Expenses	66,891,652	28,690,590	8,175,801	750,074	10,455,691	1,569,040	1,916,548	623,397	2,731,398	2,461,602
	Materials and Supplies	89,130,135	28,675,149	8,440,143	708,632	10,162,484	1,463,940	1,544,460	487,806	2,820,902	2,071,157
	Prepayments	3,276,528	1,396,593	399,911	33,976	481,519	69,365	73,180	23,118	124,588	88,195
	Mid Creek Ash Dredging Project	4,053,077	1,622,922	491,942	48,400	898,148	100,483	103,690	33,245	173,731	158,625
	Sub-69kV	143,330,822	59,084,924	17,507,797	1,540,691	21,787,843	3,192,838	3,338,775	1,087,658	5,895,500	4,789,600
	Customer Advances	12,089,695	7,700,235	1,492,784	70,118	1,134,858	137,818	159,440	48,788	298,017	39
	Customer Advances	12,089,695	7,700,235	1,492,784	70,118	1,134,858	137,818	159,440	48,788	298,017	39
	Sub-69kV	12,089,695	7,700,235	1,492,784	70,118	1,134,858	137,818	159,440	48,788	298,017	39
	Other Items	340,590,816	145,205,573	41,579,292	3,480,889	50,084,187	7,211,916	7,608,608	2,403,607	12,941,100	10,203,293
	Total Accumulated Deferred Income Tax	340,590,816	145,205,573	41,579,292	3,480,889	50,084,187	7,211,916	7,608,608	2,403,607	12,941,100	10,203,293

Lafayette Gas and Electric
 Electric Cost of Service Study
 (Ratio Bias)

Acct No.	Account Description	Totals	R	GS	LC-PH	LC-SEC	LC-TOD PH	LC-TOD SEC	LP-PH	LP-SEC	LP-TOD Trans
Subtotal		340,560,816	145,205,573	41,579,292	3,490,989	50,064,187	7,211,916	7,608,698	2,403,607	12,941,100	10,200,283
	TOTAL OTHER RATE BASE	489,891,418	204,290,497	59,027,089	5,031,678	71,832,030	10,404,754	10,945,383	3,471,263	18,597,600	14,992,793
	TOTAL RATE BASE	1,028,018,111	776,697,455	222,937,770	18,746,124	268,739,555	38,737,284	40,855,615	12,914,656	63,489,663	55,045,223

Loadline Gas and Electric
Electric Cost of Service Study
(Rate Base)

Acct. No.	Account Description	LR-TOD-PH	LR-TOD Base	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLE	OL	TLE	STOD-PH	STOD-Base
RATE BASE												
Plant-to-Service												
	Intangible Plant											
301.00	ORGANIZATION	246	6	20	31	9	28	1	36	1	2	15
302.00	FRANCHISE AND CONSENTS	11	0	1	1	0	1	0	2	0	0	1
302.00	SOFTWARE - COMMON	2,373,141	60,641	195,946	300,303	85,439	266,323	5,132	350,641	6,403	19,840	140,791
301.00	ORGANIZATION - COMMON	6,795	174	681	860	246	783	15	1,004	18	56	403
302.00	FRANCHISE AND CONSENTS - COMMON	341	9	28	43	12	38	1	50	1	3	20
	Total Intangible Plant	2,380,633	60,830	196,557	301,239	85,705	267,153	5,148	351,733	6,423	19,701	141,190
Production Plant												
	Steam Production Generation	\$1,948,427,033										
330	Hydro BaseLoad Generation	\$28,738,482										
340	Other Production Generation	\$225,898,172										
	Total Production	2,204,781,687										
	Energy Related	254,955,969	6,178,197	20,943,987	30,074,872	8,256,616	7,343,441	638,275	8,242,149	527,854	2,014,048	14,100,671
	Demand Related	32,820,325	808,678	3,042,459	5,737,836	1,627,883	0	0	0	58,789	343,117	2,426,804
	Total Production Plant	287,776,193	7,004,775	23,986,446	35,812,708	10,084,599	7,343,441	638,275	8,242,149	586,643	2,357,165	16,527,475
Transmission Plant												
	Transmission Plant	33,295,724	819,709	2,775,233	4,143,533	1,166,785	849,637	62,278	663,617	67,873	272,724	1,912,207
	Total Transmission Plant	33,295,724	819,709	2,775,233	4,143,533	1,166,785	849,637	62,278	663,617	67,873	272,724	1,912,207
Distribution Plant												
360-362	Total Accounts 360-362 OVERHEAD LINES	288,650,108										
364-385	Primary:	237,601,891										
	Customer Demand	10,395	2,638	226	228	226	943,700	2,938	1,229,598	18,079	678	7,231
	Secondary Customer Demand	14,289,691	345,039	1,075,866	2,100,141	646,392	688,845	43,015	660,804	20,782	128,597	864,514
	Customer Demand	51,248,247	0	634	0	0	203,628	634	295,311	3,901	0	1,560
366-367	UNDERGROUND LINES	157,800,618	62,139	0	0	0	78,513	5,589	85,676	2,700	0	123,322
	Primary:	123,678,007										
	Customer Demand	2,774	784	60	60	60	251,945	784	328,134	4,825	181	1,930
	Secondary Customer Demand	9,814,650	243,854	738,956	1,442,452	443,958	404,440	29,544	453,833	14,274	89,012	593,779
	Customer Demand	33,922,811	0	215	0	0	68,937	215	89,820	1,321	0	528
368	TRANSFORMERS - POWER POOL	108,478,013	64,142	0	0	0	66,666	4,870	74,824	2,353	0	107,451
	Customer Demand	0	903	0	0	0	280,090	903	377,984	5,557	0	2,223
	Services	0	159,376	0	0	0	198,241	5,846	220,256	8,828	0	316,289
	Meters	0	17,830	0	0	0	0	0	27,828	0	0	2,039
	Customer Demand	98,575	27,283	1,288	2,268	2,577	0	29,544	180,283	602	0	6,818
371	CUSTOMER INSTALLATION	0	0	0	0	0	0	0	0	0	0	0
373	STREET LIGHTING	0	0	0	0	0	0	0	0	0	0	0
374	ASSET RETIRE OBLIGATIONS DIST PLANT	1,965	55	140	274	84	236	7	282	6	17	130
	Total Distribution Plant	33,613,115	1,158,794	2,524,081	4,828,618	1,518,368	31,611,034	166,512	43,210,354	302,499	385,512	2,598,349
General Plant												
	Total General Plant	1,825,427	46,645	150,722	230,694	65,720	204,856	3,948	269,714	4,925	15,107	108,274
	TOTAL COMMON PLANT	12,218,000	312,297	1,008,820	1,649,087	438,878	1,371,151	28,423	1,805,299	32,966	101,117	724,700

Louisville Gas and Electric
 Electric Cost of Service Study
 (Rate Base)

Acct. No.	Account Description	LP-TOD PH	LP-TOD Sec	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLE	OL	TLE	STOP-PH	STOP-Sec
100	COMPLETED CONSTR NOT CLASSIFIED	0	0	0	0	0	0	0	0	0	0	0
105	PLANT HELD FOR FUTURE USE	28,106	669	2,111	4,118	1,270	26,432	139	36,131	253	245	2,773
106	PLANT HELD FOR FUTURE USE	2,873,305	70,738	229,483	357,572	100,688	73,321	5,374	82,294	5,657	23,535	165,017
	PROPERTY HELD UNDER CAPITAL LEASE	375,515	9,245	31,300	46,731	13,159	9,582	702	10,755	765	3,076	21,566
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	Total General Plant	17,320,253	439,803	1,432,448	2,185,515	620,714	1,685,342	35,587	2,204,152	44,787	143,091	1,021,729
	Construction Work in Progress											
	CWP Production	18,004,115	469,340	1,589,014	2,372,460	660,054	489,478	35,669	546,012	38,882	158,154	1,094,871
	CWP Transmission	3,170,508	78,203	264,765	395,305	111,313	81,058	5,942	90,978	6,475	28,019	182,450
	CWP Distribution Plant	4,022,955	138,688	302,082	589,635	181,724	3,783,337	18,579	5,171,591	38,204	35,665	310,881
	CWP Common Plant	2,810,895	74,382	240,347	368,351	104,789	338,671	6,235	430,095	7,854	24,091	172,857
	Total CWP	29,174,463	780,813	2,396,218	3,725,742	1,068,890	4,977,542	67,824	6,238,676	89,396	242,828	1,780,839
	TOTAL PLANT-IN-SERVICE	374,385,318	9,654,901	30,914,763	47,369,511	13,476,945	41,756,506	808,801	84,982,005	1,008,194	3,098,194	22,209,179
	TOTAL UTILITY PLANT	403,650,381	10,324,514	33,310,981	51,095,253	14,041,835	46,434,148	876,625	81,200,691	1,097,590	3,341,022	23,991,898
	Accumulated Reserve for Depreciation											
	Manglelike Plant	1,599,818	40,032	129,353	188,244	58,402	176,812	3,289	231,474	4,227	12,865	92,922
	Sub-total	1,599,818	40,032	129,353	188,244	58,402	176,812	3,289	231,474	4,227	12,865	92,922
	Production Plant	157,982,478	3,396,487	11,499,292	17,168,895	4,834,540	3,520,504	258,033	3,951,351	281,235	1,130,044	7,923,306
	Sub-total	137,980,378	3,396,487	11,499,292	17,168,895	4,834,540	3,520,504	258,033	3,951,351	281,235	1,130,044	7,923,306
	Transmission Plant	17,660,749	442,176	1,487,047	2,235,150	629,390	458,320	33,595	514,411	38,613	147,116	1,031,504
	Sub-total	17,660,749	442,176	1,487,047	2,235,150	629,390	458,320	33,595	514,411	38,613	147,116	1,031,504
	Distribution Plant	17,140,018	590,888	1,287,081	2,512,133	774,244	18,118,116	84,808	22,033,848	154,250	155,787	1,324,951
	Sub-total	17,140,018	590,888	1,287,081	2,512,133	774,244	18,118,116	84,808	22,033,848	154,250	155,787	1,324,951
	General Plant	8,714,809	171,593	554,430	848,708	241,749	753,561	14,622	982,139	18,118	55,572	398,282
	Sub-total	8,714,809	171,593	554,430	848,708	241,749	753,561	14,622	982,139	18,118	55,572	398,282
	TOTAL ACCUMULATED RESERVE FOR DEPRECIATION	181,244,544	4,641,178	14,967,203	22,994,150	6,536,325	21,027,315	394,468	27,723,222	454,444	1,501,484	10,770,968
	Rate Base Adjustments and Working Capital											
	Working Capital Assets											
	Cost Working Capital - Operation and Maintenance Expenses	8,388,221	208,800	689,728	1,006,948	279,058	348,557	18,913	417,030	24,916	67,068	471,268
	Materials and Supplies	7,568,674	183,898	628,468	959,911	273,091	844,168	16,390	1,113,767	20,430	62,793	449,883
	Prepayments	359,472	9,183	29,893	45,483	12,899	40,093	777	52,773	868	2,976	21,316
	MR Creek Ash Dredging Project	528,417	12,860	43,877	63,611	18,447	13,433	956	16,077	1,072	4,312	30,223
	Sub-total	16,870,784	422,828	1,389,755	2,077,850	583,533	1,248,282	37,084	1,598,647	47,388	137,158	972,730
	Customer Advances											
	Customer Advances	652,852	19,477	48,120	95,875	29,514	70,483	2,370	96,282	1,848	6,939	46,013
	Sub-total	652,852	19,477	48,120	95,875	29,514	70,483	2,370	96,282	1,848	6,939	46,013
	Other Items											
	Total Accumulated Deferred Income Tax	37,374,782	954,790	3,089,207	4,728,678	1,345,298	4,168,544	60,742	5,496,833	100,648	309,281	2,218,282

Louisville Gas and Electric
 Electric Cost of Service Study
 (Rate Base)

Acct. No.	Account Description	LP-TOD PH	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SLE	OL	TLE	STOD-PH	STOD-Sec
Sub-Totals		37,374,782	854,760	3,086,207	4,728,878	1,345,298	4,168,644	80,742	6,489,833	100,648	309,291	2,218,282
TOTAL OTHER RATE BASE		64,246,568	1,377,688	4,475,802	6,806,727	1,928,830	5,416,806	117,808	7,085,480	148,035	448,429	3,199,022
TOTAL RATE BASE		201,058,366	6,322,028	18,589,206	25,384,220	7,214,231	22,410,070	438,711	28,602,981	644,040	1,661,445	11,901,158

Louisville Gas and Electric
Electric Cost of Service Study
(Expenses)

Acct. No.	Account Description	Total	R	GS	LC PH	LC Sec	LC-TOD PH	LC-TOD Sec	LP-PH	LP-Sec	LP-TOD Trans
	Steam Production O&M	\$2,089,989	753,314	254,280	25,188	347,082	62,280	53,805	17,327	80,417	83,056
500	OPERATION SUPERVISION & ENGINEERING	\$297,348,907	103,118,280	34,440,622	3,524,833	48,397,231	7,351,878	7,580,902	2,482,146	12,743,771	12,116,164
501	FUEL	\$271,325,773	10,316,191	3,333,112	327,982	4,528,883	680,884	701,883	228,247	1,177,097	1,074,615
502	STEAM EXPENSES	\$754,249	284,748	92,001	9,053	124,954	18,794	19,373	6,217	32,450	29,662
505	ELECTRIC EXPENSES	\$18,989,296	6,413,902	2,072,301	203,917	2,814,589	423,327	436,370	140,043	731,838	688,122
506	MISC. STEAM POWER EXPENSES	\$51,252	18,348	6,252	615	8,491	1,277	1,316	422	2,208	2,016
507	RENTS	\$3,372	1,273	411	40	559	84	87	28	145	133
509	ALLOWANCES	\$2,346,687	843,763	281,453	28,783	385,002	53,980	61,828	20,079	103,962	88,639
510	MAINTENANCE SUPERVISION & ENGINEERING	\$2,278,365	860,520	278,030	27,358	377,616	56,796	58,548	18,789	98,187	88,538
511	MAINTENANCE OF STRUCTURES	\$39,886,283	14,313,889	4,780,635	488,275	6,717,925	1,020,472	1,053,678	341,766	1,768,938	1,681,821
512	MAINTENANCE OF BOILER PLANT	\$7,544,241	2,707,284	904,227	92,543	1,270,653	193,016	199,287	64,843	334,584	318,108
513	MAINTENANCE OF ELECTRIC PLANT	\$1,334,745	478,978	159,978	16,373	224,807	34,149	35,280	11,437	59,185	56,280
514	MAINTENANCE OF MISC STEAM PLANT	\$37,953,739	140,138,972	48,683,303	4,745,920	62,205,872	9,882,735	10,212,524	3,308,144	17,142,832	16,218,314
	Sub-total										
	Hydraulic Production O&M	\$53,038	20,042	6,478	637	8,795	1,323	1,364	438	2,287	2,088
535	OPERATION SUPERVISION & ENGINEERING	\$39,006	14,726	4,758	468	6,482	972	1,002	322	1,880	1,534
536	WATER FOR POWER	\$0	60,966	19,698	1,838	26,753	4,024	4,148	1,331	6,956	6,351
537	HYDRAULIC EXPENSES	\$161,488	48,866	15,821	1,587	21,487	3,232	3,331	1,069	5,587	5,101
538	ELECTRIC EXPENSES	\$128,702	80,114	29,115	2,665	39,544	5,948	6,131	1,988	10,202	9,387
539	MISC. HYDRAULIC POWER EXPENSES	\$238,896	1,671	551	56	765	116	119	39	200	188
540	RENTS	\$4,588	1,671	551	56	765	116	119	39	200	188
541	MAINTENANCE SUPERVISION & ENGINEERING	\$180,875	1,688	23,185	2,278	31,463	4,732	4,878	1,505	8,181	7,489
542	MAINTENANCE OF STRUCTURES	\$87,389	32,985	10,681	1,049	14,479	2,178	2,245	720	3,795	3,437
543	MAINT. OF RESERVOIRS, DAMS, AND WATERWAYS	\$282,888	101,516	33,808	3,470	47,646	7,238	7,473	2,424	12,546	11,928
544	MAINTENANCE OF ELECTRIC PLANT	\$0									
545	MAINTENANCE OF MISC HYDRAULIC PLANT	\$0									
	Sub-total	1,188,753	442,684	144,150	14,320	187,385	29,781	30,891	9,875	51,485	47,482
	Other Power Generation Operation Expense	\$25,825	10,882	3,516	348	4,775	718	740	238	1,242	1,134
546	OPERATION SUPERVISION & ENGINEERING	\$30,157,582	10,822,174	3,814,884	389,835	5,079,346	771,587	798,674	258,405	1,337,474	1,271,686
547	FUEL	\$925,321	348,333	112,868	11,106	153,285	23,056	23,767	7,627	39,850	36,389
548	GENERATION EXPENSE	\$37,851	14,280	4,817	454	8,271	943	972	312	1,630	1,489
549	MISC OTHER POWER GENERATION	\$22,836	8,621	2,785	274	3,783	569	587	189	894	838
550	RENTS	\$16,488	8,225	2,011	188	2,732	411	424	136	710	648
551	MAINTENANCE SUPERVISION & ENGINEERING	\$91,830	34,709	11,213	1,103	16,230	2,291	2,381	759	3,890	3,615
552	MAINTENANCE OF STRUCTURES	\$1,890,881	702,631	226,984	22,338	308,287	48,388	47,787	15,339	80,160	73,181
553	MAINTENANCE OF GENERATING & ELEC PLANT	\$110,415	41,684	13,469	1,325	18,282	2,751	2,835	910	4,736	4,332
554	MAINTENANCE OF MISC OTHER POWER GEN PLT	\$3,252,108	11,990,448	3,982,047	407,078	5,592,011	848,675	878,157	283,914	1,470,778	1,383,302
	Sub-total										
	Other Power Supply Expense	\$1,802,192	4,081,894	1,312,278	129,140	1,782,453	288,091	276,351	88,689	463,470	423,119
555	PURCHASED POWER	\$10,759,242	25,494,076	8,514,988	871,488	11,965,547	1,817,600	1,878,748	608,732	3,150,721	2,995,554
	Demand	\$0									
	Energy	\$0									
556	PURCHASED POWER OPTIONS	\$0									
555	BROKERAGE FEES	\$0									
555	MISO TRANSMISSION EXPENSES	\$0									

Louisville Gas and Electric
Electric Cost of Service Study
(Expenses)

Acct. No.	Account Description	Total	R	GS	LC Pr	LC Sec	LC-TOD Pr	LC-TOD Sec	LP-Pr	LP-Sec	LP-TOD Trans
556	SYSTEM CONTROL AND LOAD DISPATCH	\$1,014,056	382,833	123,681	12,171	167,888	26,288	26,046	8,359	43,682	39,878
557	OTHER EXPENSES	-570,439	-69,580	-69,580	-6,847	-94,550	-14,552	-4,702	-24,572	-22,433	-22,433
668	DUPLICATE CHARGES	-2,771,383	-894,516	-332,168	-33,888	-466,772	-70,904	-73,211	-23,748	-122,800	-116,858
Sub-total		79,474,446	28,728,931	8,548,282	871,535	13,354,721	2,025,841	2,091,280	677,331	3,610,392	3,318,283
Transmission Expenses											
580	OPERATION SUPERVISION AND ENG	\$707,432	287,074	88,290	8,491	117,188	17,827	18,170	5,831	30,474	27,821
581	LOAD DISPATCHING	711,518	288,616	86,789	8,540	117,875	17,729	18,275	5,885	30,690	27,981
582	STATION EXPENSES	1,234,251	465,962	150,650	14,814	204,475	30,754	31,702	10,174	53,187	48,638
583	OVERHEAD LINE EXPENSES	88,892	32,827	10,608	1,044	14,405	2,167	2,233	717	3,748	3,419
585	TRANSMISSION OF ELECTRICITY BY OTHERS	3,214,182	1,213,437	392,058	38,578	532,484	80,089	82,556	28,486	139,455	126,401
586	MISC. TRANSMISSION EXPENSES	3,724,941	1,408,282	454,357	44,709	617,100	92,815	95,675	30,705	180,457	146,487
587	RENTS	22,480	8,491	2,743	270	3,726	560	578	185	869	884
588	MAINTENANCE SUPERVISION AND ENG	0	0	0	0	0	0	0	0	0	0
589	STRUCTURES	38,412	11,481	3,710	365	5,038	758	781	251	1,310	1,188
570	MAINT OF STATION EQUIPMENT	998,472	376,194	121,547	11,960	165,083	24,829	25,594	8,214	42,824	39,167
571	MAINT OF OVERHEAD LINES	778,625	293,188	94,730	9,322	128,681	19,351	19,948	6,402	33,454	30,542
572	UNDERGROUND LINES	0	0	0	0	0	0	0	0	0	0
573	MISC PLANT	2,418	913	295	29	401	60	62	20	104	95
575	MARKET FACILITATION, MONITORING AND COMPLIANCE	7,533	2,844	919	80	1,248	189	193	62	325	296
Sub-total		11,515,224	4,347,287	1,404,591	138,213	1,907,694	288,928	295,789	94,920	499,035	452,849
Distribution Expense - Operating											
580	OPERATION SUPERVISION AND ENG	\$1,235,544	788,258	221,708	4,651	82,034	9,851	10,349	3,604	21,764	146
581	LOAD DISPATCHING	333,427	182,085	43,073	3,532	48,003	6,974	6,984	2,454	12,304	0
582	STATION EXPENSES	837,278	455,856	121,078	9,827	134,838	18,805	18,577	6,897	34,589	0
583	OVERHEAD LINE EXPENSES	4,518,341	2,972,491	646,386	24,061	386,039	47,218	53,942	18,760	98,954	18
584	UNDERGROUND LINE EXPENSES	440,566	263,494	86,411	2,936	48,121	5,784	6,813	2,041	12,188	1
585	STREET LIGHTING EXPENSE	18,498	0	0	0	0	0	0	0	0	0
586	METER EXPENSES	6,820,801	3,827,846	1,550,058	2,097	117,016	12,545	3,378	5,883	43,189	1,716
588	METER EXPENSES - LOAD MANAGEMENT	0	0	0	0	0	0	0	0	0	0
587	CUSTOMER INSTALLATIONS EXPENSE	-221,632	-128,111	-27,140	-1,030	-19,357	-2,043	-2,582	-724	-4,824	-3
588	MISCELLANEOUS DISTRIBUTION EXP	2,889,271	1,724,491	382,498	13,763	258,544	27,284	34,490	9,675	64,435	45
588	MISC DISTR EXP - MAPPING	0	0	0	0	0	0	0	0	0	0
588	RENTS	14,188	8,252	1,735	66	1,237	131	165	46	308	0
590	MAINTENANCE SUPERVISION AND EN	\$9,951	6,284	1,202	54	894	107	125	38	225	0
591	STRUCTURES	\$782,271	387,108	102,863	8,434	114,638	16,858	16,632	5,880	29,383	0
592	MAINTENANCE OF STATION EQUIPME	729,659	354,237	94,129	7,718	104,904	15,241	15,220	5,382	28,888	0
593	MAINTENANCE OF OVERHEAD LINES	12,698,840	8,272,155	1,520,538	66,960	1,074,309	131,403	150,118	48,813	289,812	49
594	MAINTENANCE OF UNDERGROUND LINES	1,540,702	921,464	197,274	10,267	188,283	20,228	23,826	7,139	42,624	3
595	MAINTENANCE OF LINE TRANSFORME	223,512	185,002	31,525	0	17,242	0	2,244	0	4,220	0
596	MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	782,957	0	0	0	0	0	0	0	0	0
597	MAINTENANCE OF METERS	0	0	0	0	0	0	0	0	0	0
598	MISCELLANEOUS DISTRIBUTION EXPENSES	283,243	153,351	32,235	1,224	22,991	2,426	3,087	860	5,730	4
Sub-total		32,779,090	20,333,051	4,865,573	154,658	2,559,838	313,407	344,328	112,478	659,768	1,978
Customer Accounts Expense											
901	SUPERVISION/CUSTOMER ACCTS	\$688,633	628,883	87,918	739	39,572	414	1,537	850	4,788	148
902	METER READING EXPENSES	2,117,207	1,702,884	218,381	2,315	127,224	1,330	4,941	2,090	15,382	475
903	RECORDS AND COLLECTION	4,762,532	3,830,537	491,191	5,343	288,182	2,992	11,114	4,702	34,624	1,089

Louisville Gas and Electric
Electric Cost of Service Study
(Expenses)

Acct. No.	Account Description	Total	R	GS	LC-PH	LC-Sec	LC-TOD PH	LC-TOD Sec	LP-PH	LP-Sec	LP-TOD Trans
Transmission		\$1,989	-755	-244	-24	-331	-50	-51	-16	-86	-78
Distribution		\$15,205	-8,868	-1,862	-71	-1,328	-140	-177	-50	-331	0
Accretion Expense	\$1,399,410	\$1,372,780	518,253	167,445	16,477	227,421	34,295	35,259	11,316	59,134	53,985
Production		\$1,820	687	222	22	302	45	47	15	78	72
Transmission		\$14,830	8,639	1,816	89	1,285	137	173	48	323	0
Distribution		\$17,703,456	7,548,257	2,161,425	181,473	2,002,459	374,899	395,519	124,947	672,720	\$30,400
Property Taxes & Other		\$3,910,848	1,887,478	477,478	40,088	574,915	82,818	87,374	27,802	148,610	117,170
Amortization of Investment Tax Credit		-\$468,255	-194,088	-65,704	-4,694	-67,148	-9,679	-10,208	-3,227	-17,363	-13,754
Gain on Disposition of Allowances		\$45,715,737	19,445,205	5,581,415	469,323	6,728,097	989,817	1,022,851	323,326	1,739,723	1,378,128
Interest		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Deductions		\$66,706,661	\$28,403,899	\$8,144,230	\$694,198	\$9,610,705	\$1,413,897	\$1,491,248	\$471,272	\$2,538,500	\$2,005,385
Total Other Expenses		\$192,893,093	\$318,539,561	\$90,713,984	\$8,787,482	\$123,072,829	\$18,247,330	\$18,976,412	\$6,114,917	\$32,401,510	\$28,297,238
TOTAL EXPENSES		-\$8,266,793	2,822,318	814,344	85,325	1,062,405	128,537	138,689	42,306	257,628	-2,391,305
Assignment of Intangible Credit		\$6,266,793									167,751
Allocation of Intangible Credit											

Calculation of Taxable Income and Allocation of Income Taxes:

Total Operating Revenue	\$832,384,518	\$373,658,074	\$132,330,280	\$10,106,726	\$152,499,710	\$19,884,331	\$21,888,647	\$7,079,501	\$38,755,662	\$28,577,022
Operating Expenses	\$748,703,881	\$302,507,423	\$82,136,782	\$8,402,055	\$117,663,912	\$17,444,686	\$18,128,016	\$5,846,652	\$30,898,141	\$24,766,170
Interest Expenses	\$45,715,737	\$18,445,205	\$5,581,415	\$469,323	\$6,728,097	\$989,817	\$1,022,851	\$323,326	\$1,739,723	\$1,378,128
Taxable Income	\$137,964,899	\$51,689,345	\$24,612,084	\$1,237,248	\$28,107,800	\$1,469,618	\$2,716,780	\$909,523	\$6,329,998	\$2,442,726
Income Taxes										
State & Federal Income Taxes	\$42,739,679	18,033,092	10,736,660	383,825	8,719,033	455,937	842,744	282,134	1,683,564	757,733

Louisville Gas and Electric
Electric Cost of Service Study
(Expenses)

Act. No.	Account Description	LP-TOD Pkt	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SLE	OL	TLE	STOD-Pkt	STOD-Sec
Transmission Expenses												
560	OPERATION SUPERVISION AND ENG	82,307	2,273	7,898	11,491	3,236	2,356	173	2,845	188	756	5,303
561	LOAD DISPATCHING	82,871	2,268	7,741	11,557	3,254	2,370	174	2,650	189	761	5,334
562	STATION EXPENSES	161,100	3,968	13,428	20,048	5,845	4,111	301	4,614	328	1,320	9,252
563	OVERHEAD LINE EXPENSES	11,349	278	946	1,412	398	290	21	325	23	93	652
565	TRANSMISSION OF ELECTRICITY BY OTHERS	419,531	10,328	34,988	52,209	14,701	10,706	765	12,016	855	3,436	24,094
568	MISC. TRANSMISSION EXPENSES	488,187	11,970	40,625	60,508	17,038	12,407	909	13,925	991	3,982	27,923
567	RENTS	2,835	72	245	365	103	75	5	84	6	24	160
568	MAINTENANCE SUPERVISION AND ENG	0	0	0	0	0	0	0	0	0	0	0
569	STRUCTURES	3,970	98	331	484	139	101	7	114	8	33	228
570	MAINT OF STATION EQUIPMENT	130,064	3,202	10,841	16,186	4,558	3,319	243	3,725	265	1,065	7,470
571	MAINT OF OVERHEAD LINES	101,368	2,488	8,449	12,615	3,552	2,587	180	2,903	207	830	5,822
572	UNDERGROUND LINES	0	0	0	0	0	0	0	0	0	0	0
573	MISC PLANT	318	8	28	39	11	8	1	9	1	3	18
575	MARKET FACILITATION, MONITORING AND COMPLIANCE	983	24	82	122	34	25	2	28	2	8	59
Sub-total		1,503,023	37,003	125,278	187,048	52,670	38,354	2,811	43,040	3,064	12,311	88,320
Distribution Expense - Operating												
580	OPERATION SUPERVISION AND ENGI	43,008	1,602	3,155	6,155	1,920	13,189	554	17,592	2,585	390	3,020
581	LOAD DISPATCHING	33,038	821	2,487	4,955	1,484	1,381	89	1,528	48	300	1,999
582	STATION EXPENSES	82,865	2,307	6,992	13,648	4,201	3,827	280	4,265	135	842	5,618
583	OVERHEAD LINE EXPENSES	223,980	6,579	18,828	23,840	10,110	28,342	816	35,050	711	2,037	15,583
584	UNDERGROUND LINE EXPENSES	27,392	634	2,062	4,025	1,239	2,209	99	2,847	64	249	1,963
585	STREET LIGHTING EXPENSE	0	0	0	0	0	7,752	0	10,744	0	0	0
586	METER EXPENSES - LOAD MANAGEMENT	15,785	4,461	211	370	421	0	4,329	0	29,467	131	1,441
587	CUSTOMER INSTALLATIONS EXPENSE	-9,588	-331	-721	-1,407	-434	-8,028	-48	-12,338	-89	-87	-742
588	MISCELLANEOUS DISTRIBUTION EXP	128,186	4,419	9,627	18,789	5,791	120,561	635	164,799	1,154	1,795	9,910
588	MISC DISTR EXP - MAPIN	0	0	0	0	0	0	0	0	0	0	0
589	RENTS	613	21	48	90	28	577	3	789	0	6	47
590	MAINTENANCE SUPERVISION AND EN	505	15	38	74	23	148	2	195	2	5	38
591	STRUCTURES	78,894	1,980	5,940	11,595	3,669	3,291	237	3,849	115	718	4,773
592	MAINTENANCE OF STATION EQUIPME	72,185	1,784	5,436	10,610	3,266	2,875	217	3,339	105	655	4,388
593	MAINTENANCE OF OVERHEAD LINES	622,228	18,308	48,824	81,392	28,135	78,824	2,270	87,540	1,878	5,689	43,388
594	MAINTENANCE OF UNDERGROUND LIN	95,793	2,817	7,211	14,075	4,332	7,727	346	9,237	222	870	6,866
595	MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	0	0	0	0	0	1,002	31	1,233	28	0	656
597	MAINTENANCE OF METERS	0	0	0	0	0	332,352	0	460,804	0	0	0
598	MISCELLANEOUS DISTRIBUTION EXPENSES	11,400	393	856	1,971	515	10,721	56	14,655	103	104	881
Sub-total		1,435,901	48,432	106,589	208,784	64,611	605,662	10,428	815,552	38,832	13,050	99,786
Customer Accounts Expense												
901	SUPERVISION/CUSTOMER ACCTS	1,559	384	30	30	30	4,813	19	6,271	118	4	47
902	METER READING EXPENSES	4,571	1,235	95	95	95	15,473	62	20,162	380	14	152
903	RECORDS AND COLLECTION	9,832	2,778	214	214	214	34,806	139	45,363	855	32	342

Louisville Gas and Electric
Electric Cost of Service Study
[Expenses]

Acct. No.	Account Description	LP-TOD P1	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SLE	OL	TLE	STOD-P1	STOD-Sec
	Transmission Distribution	-261	-6	-22	-32	-9	-7	0	-7	-1	2	-15
	Accretion Expense	-658	-23	-19	-97	-30	-619	-3	-848	-6	-6	-51
	Production											
	Transmission Distribution	170,179	4,411	14,535	22,298	6,279	4,672	335	5,132	385	1,468	10,280
	Property Taxes & Other	238	6	20	30	8	8	0	3	7	2	14
	Amortization of Investment Tax Credit	642	22	48	94	29	604	0	826	6	6	50
	Gain on Disposition of Allowances	1,942,882	49,632	180,431	245,822	89,933	216,684	4,187	285,223	5,232	18,078	115,210
	Interest	429,195	10,984	35,441	54,304	18,449	47,870	927	63,008	1,158	3,552	25,451
	Other Deductions	-50,237	-1,282	-4,147	-6,343	-1,803	-5,691	-109	-7,372	-137	-415	-2,974
	Total Other Expenses	5,033,672	128,484	415,549	635,513	180,614	591,203	10,618	738,630	13,721	41,596	297,964
	TOTAL EXPENSES	\$97,631,114	\$2,420,328	\$9,027,447	\$11,820,509	\$3,291,657	\$5,363,587	\$216,642	\$8,666,357	\$275,328	\$784,670	\$5,535,202
	Assignment of Interruptible Credit	-3,875,488										
	Allocation of Interruptible Credit	591,298	15,850	19,899	81,238	12,015	0	0	0	0	1,078	5,933
	Calculation of Taxable Income and Allocation of Income Taxes:											
	Total Operating Revenue	\$100,286,170	\$2,830,994	\$7,761,890	\$11,613,536	\$3,075,165	\$8,222,827	\$207,196	\$8,618,655	\$280,300	\$892,735	\$5,941,047
	Operating Expenses	\$89,515,092	\$2,312,770	\$7,648,716	\$11,291,365	\$3,130,138	\$4,798,137	\$206,103	\$5,624,338	\$263,102	\$750,882	\$5,290,733
	Interest Expense	\$5,033,672	\$128,484	\$415,549	\$635,513	\$180,614	\$591,203	\$10,618	\$738,630	\$13,721	\$41,596	\$297,964
	Taxable Income	\$5,771,405	\$389,740	-\$282,405	-\$313,342	-\$231,596	\$863,487	-\$9,825	\$1,856,689	\$3,478	\$10,477	\$352,350
	Income Taxes											
	State & Federal Income Taxes	1,773,538	120,897	-87,802	-87,199	-73,079	207,653	-3,048	608,904	1,079	3,250	109,302

Louisville Gas and Electric
Electric Cost of Service Study
(Salaries and Wages)

Acct. No.	Account Description	Total	R	GS	LC PH	LC Sec	LC-TOD PH	LC-TOD Sec	LP PH	LP-SEC	LP-TOD Trains
590 RENTS		\$0	0	0	0	0	0	0	0	0	0
	Total Other Power Generation Expenses	\$204,091	\$77,050	\$24,894	\$2,450	\$33,811	\$5,085	\$5,242	\$1,682	\$8,791	\$9,028
	Total Other Power Generation Expenses	\$204,091	\$77,050	\$24,894	\$2,450	\$33,811	\$5,085	\$5,242	\$1,682	\$8,791	\$9,028
	Other Power Generation Maintenance Expense										
551 MAINTENANCE SUPERVISION & ENGINEERING		\$15,085	5,895	1,840	181	2,488	376	387	124	650	599
552 MAINTENANCE OF STRUCTURES		\$45,408	17,142	5,538	545	7,522	1,131	1,166	374	1,956	1,786
553 MAINTENANCE OF GENERATING & ELEC PLANT		\$268,788	101,474	32,788	3,226	44,529	6,697	6,904	2,216	11,578	10,570
554 MAINTENANCE OF MISC OTHER POWER GEN PLT		\$33,195	12,532	4,049	398	5,499	827	853	274	1,430	1,305
	Total Other Power Generation Maintenance Expense	\$362,474	\$138,843	\$44,213	\$4,351	\$80,050	\$9,032	\$9,310	\$2,988	\$15,614	\$14,255
	Total Other Power Generation Expense	\$566,594	\$213,893	\$69,108	\$6,800	\$83,861	\$14,117	\$14,552	\$4,670	\$24,408	\$22,281
	Total Production Expense	\$29,786,598	\$11,028,752	\$3,009,259	\$350,782	\$4,969,165	\$750,392	\$774,039	\$249,488	\$1,288,684	\$1,205,578
	Purchased Power										
555 PURCHASED POWER		\$0									
556 SYSTEM CONTROL AND LOAD DISPATCH		710,294	288,154	88,639	8,525	117,672	17,689	18,244	5,855	30,597	27,933
557 OTHER EXPENSES		285	100	32	3	44	7	7	2	11	10
	Total Purchased Power Labor	\$710,558	\$288,254	\$88,672	\$8,529	\$117,716	\$17,705	\$18,251	\$5,857	\$30,608	\$27,943
	Transmission Labor Expenses										
560 OPERATION SUPERVISION AND ENG		\$474,328	179,071	57,857	5,693	78,591	11,819	12,183	3,910	20,432	18,853
561 LOAD DISPATCHING		536,971	202,721	65,488	6,445	89,958	13,380	13,782	4,426	23,131	21,117
562 STATION EXPENSES		559,972	211,404	68,304	6,721	92,769	13,953	14,383	4,818	24,122	22,022
563 OVERHEAD LINE EXPENSES		7,204	2,720	878	86	1,183	178	185	59	310	283
566 MISC. TRANSMISSION EXPENSES		142,681	53,858	17,401	1,712	23,634	3,555	3,684	1,178	6,145	5,810
569 MAINTENANCE OF STRUCTURES		3,759	1,418	458	45	623	94	97	31	162	148
570 MAINT OF STATION EQUIPMENT		223,429	84,350	27,253	2,682	37,015	5,567	5,738	1,842	9,625	8,787
571 MAINT OF OVERHEAD LINES		5,895	2,263	731	72	993	149	154	49	258	236
573 MAINT OF MISC. TRANSMISSION PLANT		745	281	91	9	123	19	19	6	32	29
	Total Transmission Labor Expenses	\$1,855,063	\$738,087	\$238,473	\$23,488	\$323,880	\$48,715	\$50,216	\$16,116	\$84,217	\$76,885
	Distribution Operation Labor Expense										
580 OPERATION SUPERVISION AND ENG		\$772,745	492,999	138,683	2,908	51,308	6,181	6,472	2,254	13,612	81
581 LOAD DISPATCHING		251,408	122,222	32,477	2,663	36,185	5,258	5,251	1,850	9,277	0
582 STATION EXPENSES		194,820	94,819	25,143	2,051	28,021	4,071	4,065	1,432	7,182	0
583 OVERHEAD LINE EXPENSES		2,088,508	1,376,238	252,788	11,132	178,603	21,848	24,857	7,749	44,856	8
584 UNDERGROUND LINE EXPENSES		63,338	55,824	11,951	622	10,185	1,225	1,443	432	2,582	0
586 STREET LIGHTING EXPENSE		7,108	0	0	0	0	0	0	0	0	0
588 METER EXPENSES		2,224,315	1,514,780	613,402	830	46,307	4,865	1,397	2,320	17,083	678
586 METER EXPENSES - LOAD MANAGEMENT		0	650,350	136,707	5,190	97,504	10,289	13,007	3,648	24,300	17
587 CUSTOMER INSTALLATIONS EXPENSE		0	0	0	0	0	0	0	0	0	0
588 MISCELLANEOUS DISTRIBUTION EXP		1,118,394	0	0	0	0	0	0	0	0	0
589 RENTS		0	0	0	0	0	0	0	0	0	0
	Total Distribution Operation Labor Expense	\$6,748,448	\$4,308,043	\$1,211,132	\$25,407	\$448,130	\$53,816	\$56,533	\$19,687	\$118,893	\$786

Louisville Gas and Electric
 Electric Cost of Service Study
 (Salaries and Wages)

Acct. No.	Account Description	Total	R	GS	LC PH	LC Sec	LC-TOD PH	LC-TOD Sec	LP-PH	LP-SEC	LP-TOD Trans
Distribution Maintenance Labor Expense											
590	MAINTENANCE SUPERVISION AND EN	\$2,899	1,819	349	18	290	31	38	11	65	0
591	MAINTENANCE OF STRUCTURES	10,923	5,310	1,411	118	1,673	228	228	80	403	0
592	MAINTENANCE OF STATION EQUIP/PE	153,675	74,709	19,852	1,028	22,124	3,214	3,210	1,131	5,071	0
593	MAINTENANCE OF OVERHEAD LINES	1,888,160	1,229,555	226,009	9,953	159,663	19,631	22,313	6,928	40,104	7
594	MAINTENANCE OF UNDERGROUND LIN	276,603	165,431	35,417	1,843	30,212	3,631	4,277	1,282	7,652	1
595	MAINTENANCE OF LINE TRANSFORME	118,235	85,807	18,394	0	8,967	0	1,167	0	2,195	0
596	MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	50,878	0	0	0	0	0	0	0	0	0
597	MAINTENANCE OF METERS	0	0	0	0	0	0	0	0	0	0
598	MAINTENANCE OF MISC DISTR PLANT	42,413	24,708	5,194	197	3,704	391	494	139	923	1
	Total Distribution Maintenance Labor Expense	\$2,521,775	\$1,587,338	\$304,628	\$13,762	\$228,622	\$27,027	\$31,728	\$9,571	\$57,014	\$8
Total Distribution Operation and Maintenance Labor Expenses											
		9,271,223	5,893,381	1,515,759	39,158	674,652	80,943	89,259	29,258	175,907	804
Transmission and Distribution Labor Expenses											
		11,228,288	8,831,488	1,754,230	62,525	896,542	129,558	138,474	45,373	260,124	77,889
Production, Transmission and Distribution Labor Expenses											
		\$41,733,441	\$17,928,474	\$5,450,161	\$431,938	\$8,095,424	\$897,658	\$920,764	\$300,718	\$1,598,418	\$1,311,211
Customer Accounts Expense											
901	SUPERVISION/CUSTOMER ACCTS	\$483,272	372,613	47,780	520	27,838	281	1,081	457	3,388	104
902	METER READING EXPENSES	215,848	173,808	22,282	242	12,970	138	504	213	1,589	48
903	RECORDS AND COLLECTION	1,902,071	1,528,849	199,173	2,134	114,296	1,195	4,439	1,878	13,828	427
904	UNCOLLECTIBLE ACCOUNTS	0	0	0	108	5,811	61	228	95	703	22
905	MISC CUST ACCOUNTS	90,698	77,773	9,873	0	0	0	0	0	0	0
	Total Customer Accounts Labor Expense	\$2,677,887	\$2,153,843	\$276,168	\$3,004	\$160,915	\$1,682	\$9,249	\$2,644	\$18,468	\$601
Customer Service Expense											
907	SUPERVISION	\$75,887	65,798	7,670	9	492	3	10	8	59	1
908	CUSTOMER ASSISTANCE EXP-LOAD MGMT	80,721	69,868	8,148	10	522	3	10	9	63	1
908	CUSTOMER ASSISTANCE EXP-LOAD MGMT	0	0	0	0	0	0	0	0	0	0
909	INFORMATIONAL AND INSTRUCTIONA	1,150	985	116	0	7	0	0	0	1	0
909	INFORM AND INSTRUC-LOAD MGMT	0	0	0	0	0	0	0	0	0	0
910	MISCELLANEOUS CUSTOMER SERVICE	15,640	13,543	1,579	2	101	1	2	2	12	0
911	DEMONSTRATION AND SELLING EXP	0	0	0	0	0	0	0	0	0	0
912	DEMONSTRATION AND SELLING EXP	0	0	0	0	0	0	0	0	0	0
913	WATER HEATER - HEAT PUMP PROGRAM	0	0	0	0	0	0	0	0	0	0
915	MOSE-JOBING-CONTRACT	0	0	0	0	0	0	0	0	0	0
916	MISC SALES EXPENSE	0	0	0	0	0	0	0	0	0	0
	Total Customer Service Labor Expense	\$173,487	\$150,234	\$17,513	\$21	\$1,122	\$8	\$22	\$18	\$158	\$2
Sub-Total Labor Exp											
		44,684,824	20,230,551	5,743,892	434,981	6,247,481	898,344	937,035	303,381	1,809,020	1,311,814

Louisville Gas and Electric
 Electric Cost of Service Study
 (Salaries and Wages)

Acct. No.	Account Description	Total	R	GS	LC Ph	LC Sec	LC-TOD Ph	LC-TOD Sec	LP-Ph	LP-Sec	LP-TOD Trans
Administrative and General Expense											
920	ADMIN. & GEN. SALARIES-	\$10,137,273	4,599,830	1,305,985	98,987	1,420,488	204,494	213,054	68,880	365,844	288,269
921	OFFICE SUPPLIES AND EXPENSES	\$0									
922	ADMIN. EXPENSES TRANSFERRED - CREDIT	-1,088,580	-484,883	-137,883	-10,425	-148,732	-21,554	-22,458	-7,271	-38,583	-31,440
923	OUTSIDE SERVICES EMPLOYED	0									
924	PROPERTY INSURANCE	0									
925	INJURIES AND DAMAGES - INSURAN	45,353	20,578	5,843	442	6,355	915	953	309	1,637	1,334
928	EMPLOYEE BENEFITS	0									
928	REGULATORY COMMISSION FEES	0									
929	DUPLICATE CHARGES-CR	0									
930	MISCELLANEOUS GENERAL EXPENSES	0									
931	RENTS AND LEASES	0									
935	MAINTENANCE OF GENERAL PLANT	2,117,540	888,084	258,497	22,236	318,935	45,974	48,320	15,304	82,001	66,275
Total Administrative and General Expense		\$11,231,606	\$5,023,630	\$1,432,862	\$111,151	\$1,594,048	\$228,818	\$239,870	\$77,321	\$410,918	\$334,437
Total Operation and Maintenance Expenses											
Total Operation and Maintenance Expenses		\$55,818,431	\$25,254,181	\$7,178,525	\$548,112	\$7,841,507	\$1,129,162	\$1,176,905	\$380,702	\$2,019,939	\$1,846,251
Operation and Maintenance Expenses Less Purchase Power											
Operation and Maintenance Expenses Less Purchase Power		\$55,818,431	\$25,254,181	\$7,178,525	\$548,112	\$7,841,507	\$1,129,162	\$1,176,905	\$380,702	\$2,019,939	\$1,846,251

Louisville Gas and Electric
Electric Cost of Service Study
(Salaries and Wages)

Acct. No.	Account Description	LP-10D PH	LP-10D Sec	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLE	OL	TLE	STOD-PH	STOD-Sec
550 RENTS		0	0	0	0	0	0	0	0	0	0	0
Total Other Power Generation Expenses		\$26,639	\$556	\$2,220	\$3,315	\$933	\$680	\$50	\$763	\$54	\$218	\$1,530
Other Power Generation Maintenance Expenses												
551 MAINTENANCE SUPERVISION & ENGINEERING		1,969	48	184	245	69	50	4	56	4	18	113
552 MAINTENANCE OF STRUCTURES		5,927	146	494	738	208	151	11	170	12	49	340
553 MAINTENANCE OF GENERATING & ELEC PLANT		35,083	884	2,824	4,388	1,229	865	68	1,005	72	287	2,015
554 MAINTENANCE OF MISC OTHER POWER GEN PLT		4,333	107	381	539	152	111	8	124	9	35	249
Total Other Power Generation Maintenance Expense		\$47,312	\$1,185	\$3,943	\$5,688	\$1,838	\$1,207	\$88	\$1,355	\$96	\$388	\$2,717
Total Other Power Generation Expense		\$73,951	\$1,821	\$8,164	\$9,203	\$2,531	\$1,897	\$138	\$2,118	\$151	\$686	\$4,247
Total Production Expense												
		\$3,999,333	\$97,792	\$331,284	\$486,795	\$135,691	\$107,491	\$7,879	\$120,646	\$8,204	\$32,266	\$226,086
Purchased Power												
555 PURCHASED POWER		92,711	2,282	7,728	11,538	3,249	2,388	173	2,655	189	759	5,324
556 SYSTEM CONTROL AND LOAD DISPATCH		35	1	3	4	1	1	0	1	0	0	2
557 OTHER EXPENSES												
Total Purchased Power Labor		\$92,746	\$2,283	\$7,730	\$11,542	\$3,250	\$2,387	\$173	\$2,656	\$189	\$760	\$5,326
Transmission Labor Expenses												
560 OPERATION SUPERVISION AND ENG		61,912	1,624	5,160	7,705	2,170	1,580	116	1,773	126	507	3,656
561 LOAD DISPATCHING		70,088	1,728	5,042	8,722	2,458	1,788	131	2,007	143	574	4,025
562 STATION EXPENSES		72,090	1,799	6,092	9,099	2,591	1,895	137	2,093	149	599	4,198
563 OVERHEAD LINE EXPENSES		940	23	78	117	33	24	2	27	8	8	54
564 MISC. TRANSMISSION EXPENSES		18,621	458	1,552	2,317	853	475	35	533	38	153	1,089
565 MAINTENANCE OF STRUCTURES		491	12	41	61	17	13	1	14	1	4	28
570 MAINT OF STATION EQUIPMENT		29,163	718	2,431	3,629	1,022	744	55	835	59	239	1,675
571 MAINT OF OVERHEAD LINES		782	19	65	97	27	20	1	22	2	6	45
573 MAINT OF MISC. TRANSMISSION PLANT		97	2	8	12	3	2	0	3	0	1	6
Total Transmission Labor Expenses		\$255,184	\$8,282	\$21,270	\$31,757	\$8,942	\$6,512	\$477	\$7,309	\$520	\$2,090	\$14,655
Distribution Operation Labor Expense												
580 OPERATION SUPERVISION AND ENGI		28,897	1,002	1,973	3,650	1,201	8,255	347	11,003	1,616	244	1,889
581 LOAD DISPATCHING		24,909	610	1,875	3,691	1,127	1,026	75	1,152	36	228	1,507
582 STATION EXPENSES		19,294	479	1,452	2,834	872	795	58	892	28	175	1,167
583 OVERHEAD LINE EXPENSES		103,445	3,044	7,784	15,184	4,677	13,113	377	16,216	329	942	7,209
584 UNDERGROUND LINE EXPENSES		5,803	177	437	853	262	488	21	560	13	53	418
585 STREET LIGHTING EXPENSE		0	0	0	0	0	0	0	0	0	0	0
586 METER EXPENSES		0,247	1,765	83	147	107	0	1,911	0	11,881	52	570
588 METER EXPENSES - LOAD MANAGEMENT												
587 CUSTOMER INSTALLATIONS EXPENSE												
589 MISCELLANEOUS DISTRIBUTION EXP												
589 RENTS												
Total Distribution Operation Labor Expense		\$234,931	\$9,763	\$17,238	\$33,624	\$10,491	\$72,103	\$3,028	\$96,101	\$14,119	\$2,131	\$16,495

Louisville Gas and Electric
Electric Cost of Service Study
(Salaries and Wages)

Acct. No.	Account Description	LP-10D PH	LP-10D Sec	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLE	OL	TLE	STOD-PH	STOD-Sec
Distribution Maintenance Labor Expense												
590	MAINTENANCE SUPERVISION AND EN	147	4	11	22	7	43	1	57	0	1	10
591	MAINTENANCE OF STRUCTURES	1,082	27	81	159	49	45	3	50	2	10	65
592	MAINTENANCE OF STATION EQUIPME	15,226	378	1,146	2,238	689	627	48	704	22	138	921
593	MAINTENANCE OF OVERHEAD LINES	92,487	2,721	8,960	13,594	4,182	11,724	337	14,498	294	843	6,446
594	MAINTENANCE OF UNDERGROUND LIN	17,198	524	1,295	2,527	778	1,287	62	1,658	40	156	1,233
595	MAINTENANCE OF LINE TRANSFORME	0	172	0	0	0	521	18	641	13	0	341
596	MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	0	0	0	0	0	21,325	0	29,554	0	0	0
597	MAINTENANCE OF METERS											
598	MAINTENANCE OF MISC DISTR PLANT	1,837	63	138	268	63	1,727	9	2,361	17	17	142
Total Distribution Maintenance Labor Expense		\$127,978	\$3,890	\$9,631	\$16,789	\$5,787	\$37,399	\$478	\$49,523	\$388	\$1,165	\$9,159
Total Distribution Operation and Maintenance Labor Expenses												
		382,907	12,642	28,957	62,422	18,278	109,502	3,603	145,624	14,507	3,298	25,654
Transmission and Distribution Labor Expenses												
		618,082	18,925	48,137	84,178	25,220	116,013	3,980	162,833	15,027	5,386	40,310
Production, Transmission and Distribution Labor Expenses		\$4,709,170	\$119,000	\$387,131	\$582,518	\$164,161	\$225,871	\$12,033	\$276,235	\$23,420	\$38,412	\$271,732
Customer Accounts Expense												
901	SUPERVISION/CUSTOMER ACCTS	958	270	21	21	21	3,386	14	4,412	83	3	33
902	METER READING EXPENSES	448	128	10	10	10	1,577	8	2,055	39	1	15
903	RECORDS AND COLLECTION	3,827	1,110	85	85	85	13,901	55	18,113	341	13	137
904	UNCOLLECTIBLE ACCOUNTS											
905	MISC CUST ACCOUNTS	200	56	4	4	4	707	3	921	17	1	7
Total Customer Accounts Labor Expense		\$5,528	\$1,662	\$120	\$120	\$120	\$19,571	\$78	\$25,501	\$481	\$18	\$192
Customer Service Expense												
907	SUPERVISION	8	2	0	0	0	767	22	888	132	1	6
908	CUSTOMER ASSISTANCE EXPENSES	9	3	0	0	0	814	23	1,061	140	1	6
908	CUSTOMER ASSISTANCE EXP-LOAD MGMT											
909	INFORMATIONAL AND INSTRUCTIONA	0	0	0	0	0	12	0	16	2	0	0
909	INFORM AND INSTRUC-LOAD MGMT											
910	MISCELLANEOUS CUSTOMER SERVICE	2	0	0	0	0	158	4	206	27	0	1
911	DEMONSTRATION AND SELLING EXP											
912	DEMONSTRATION AND SELLING EXP											
913	WATER HEATER - HEAT PUMP PROGRAM											
915	MDSE-JOBING-CONTRACT											
916	MISC SALES EXPENSE											
Total Customer Service Labor Expense		\$18	\$5	\$0	\$0	\$0	\$1,750	\$48	\$2,280	\$302	\$1	\$13
Sub-Total Labor Exp		4,714,717	120,668	387,252	682,636	164,282	247,182	12,181	304,017	24,202	38,431	271,937

Louisville Gas and Electric
 Electric Cost of Service Study
 (Salaries and Wages)

Acct. No.	Account Description	LP-TOD PH	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PHL	SLE	OL	TLE	STOD-PH	STOD-Sec
Administrative and General Expense												
920	ADMIN. & GEN. SALARIES-	1,071,986	27,414	88,050	132,474	37,353	58,204	2,755	69,124	5,503	8,738	61,831
921	OFFICE SUPPLIES AND EXPENSES											
922	ADMIN. EXPENSES TRANSFERRED - CREDIT	-112,897	-2,090	-9,281	-13,884	-3,937	-5,024	-291	-7,288	-880	-821	-6,517
923	OUTSIDE SERVICES EMPLOYED											
924	PROPERTY INSURANCE											
925	INJURIES AND DAMAGES - INSURAN	4,796	123	394	593	167	251	12	309	25	38	277
926	EMPLOYEE BENEFITS											
928	REGULATORY COMMISSION FEES											
929	DUPPLICATE CHARGES-CR											
930	MISCELLANEOUS GENERAL EXPENSES											
931	RENTS AND LEASES											
935	MAINTENANCE OF GENERAL PLANT	238,675	8,081	18,738	30,116	8,553	23,224	504	30,373	617	1,872	14,078
Total Administrative and General Expenses		\$1,202,461	\$30,707	\$88,801	\$148,219	\$42,136	\$73,755	\$2,980	\$82,521	\$5,584	\$9,828	\$69,669
Total Operation and Maintenance Expenses		\$5,917,179	\$161,276	\$488,153	\$731,858	\$206,418	\$320,947	\$15,151	\$388,537	\$29,767	\$48,259	\$341,006
Operation and Maintenance Expenses Less Purchase Power		\$5,017,179	\$151,275	\$488,153	\$731,856	\$206,418	\$320,947	\$15,151	\$388,537	\$29,767	\$48,259	\$341,000

Louisville Gas and Electric
 Electric Cost of Service Study
 (Revenue)

Acct. No.	Account Description	Total	R	GS	LC P1	LC Sec	LC-TOD P1	LC-TOD Sec	LP-P1	LP-Sec	LP-TOD Trans
REVENUE											
	Sales to Ultimate Consumers	\$780,753,699	314,219,675	113,888,416	8,326,142	127,281,267	16,184,022	18,050,768	5,977,441	32,185,764	23,087,081
	Rate Refunds	-59,763,357	-3,928,479	-1,424,100	-104,115	-1,591,720	-202,459	-225,717	-74,745	-402,469	-288,444
	Intercompany Sales	\$98,772,853	31,856,530	10,640,015	1,088,955	14,951,741	2,271,212	2,345,117	789,650	3,893,034	3,743,143
	Off-System Sales	\$97,472,720	27,017,892	8,396,221	771,186	11,388,017	1,571,223	1,841,257	522,420	2,893,085	2,373,039
	Brokered Sales	\$2,000,584	-717,919	-239,783	-24,541	-338,932	-51,184	-82,850	-17,142	-88,725	-84,355
	Forfeited Discounts	\$2,744,200	2,286,501	308,711	3,272	49,789	6,368	7,074	8,518	46,034	33,040
	Misc. Service Revenues	\$963,121	741,297	121,824	0	0	0	0	0	0	0
	Rent From Electric Property	\$3,037,655	1,429,853	376,091	29,061	437,807	56,466	60,210	18,833	109,167	74,595
	Other Electric Revenue	\$1,071,555	438,437	150,265	11,298	171,763	22,443	24,639	8,111	43,613	32,757
	Unbilled Revenue	\$785,000	315,916	114,501	8,271	127,979	16,281	18,148	6,010	32,350	23,192
	Merch. Surrendr. Amortization	-\$1,382,146							-130,596		-397,436
	TOTAL REVENUE	\$932,584,616	373,639,674	\$132,330,260	\$10,108,726	\$162,499,710	\$19,894,331	\$21,868,847	\$7,079,501	\$38,765,662	\$28,577,022

Louisville Gas and Electric
 Electric Cost of Service Study
 (Revenue)

Acct No.	Account Description	LP-TOD Pt	LP-TOD Sec	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLE	OL	TLE	STOD-Pt	STOD-Sec
REVENUE	Sales to Ultimate Consumers	81,308,589	2351093	6,497,749	9235472	2474679	5759822	172123	8059488	248932	641268	4811998
	Rate Refunds	-1,016,728	-29399	-81,251	-115498	-30945	-71912	-2152	-101281	-3013	-8019	-60171
	Intercompany Sales	12,401,040	300,507	1,616,714	1,482,840	401,696	357,185	26,182	400,898	25,675	97,963	685,895
	Off-System Sales	8,035,718	202,656	520,343	1,004,081	225,338	148,146	10,859	185,276	15,827	69,651	489,318
	Brokered Sales	-279,470	-6,772	-22,938	-32,987	-9,050	-8,050	-590	-8,035	-579	-2,208	-15,455
	Forbidden Discounts	14,892	0	0	0	0	0	0	0	0	0	0
	Misc Services Revenues	0	0	0	0	0	0	0	0	0	0	0
	Rent From Electric Property	278,302	7,357	15,912	38,187	7,889	33,754	368	45,353	797	2,525	18,039
	Other Electric Revenues	114,869	3,188	8,989	13,153	3,472	7,109	233	5,782	318	909	6,716
	Unbilled Revenue	81,748	2,364	6,533	9,286	2,488	5,782	173	8,143	242	645	4,038
	Merger Surrender Amortization	-671,982		-182,152								
TOTAL REVENUE		\$100,266,170	\$2,850,994	\$7,781,850	\$11,613,518	\$3,076,185	\$6,222,827	\$207,195	\$8,819,855	\$280,300	\$802,735	\$5,944,047

Ladenburg Gas and Electric
 Electric Cost of Service Study
 (Allsector Accounts)

Acct. No.	Account Description	Total	R	GS	LC PH	LC Sec	LC-100 PH	LC-100 Sec	LC-TH	LP-SEC	LP-100 Term
66	Labor Accts 506418	44,534,024	20,220,651	5,743,862	434,961	6,247,491	699,344	937,035	303,261	1,009,020	1,311,614
67	Oil and Purchased Power	539,090,030	213,906,187	65,533,255	6,011,313	63,794,964	12,404,662	12,947,454	4,194,580	21,600,210	18,727,888
68	Debt, Less Gross Profit	446,793,028	294,543,947	56,182,028	2,691,076	41,808,427	6,092,742	6,891,784	1,802,857	10,669,219	1,431
69	Rent Base	1,956,018,111	776,667,465	222,537,770	161,745,124	208,739,665	38,737,294	40,656,615	12,014,555	69,469,563	55,048,123
70	Gross Transformer Plant	108,478,013	60,061,066	13,200,324	1,091,366	8,306,181	0	1,099,073	751,645	4,060,580	3,145,181
71	Distribution Expenses	109,260,300	48,673,705	13,216,102	548,112	7,041,507	1,126,162	1,176,505	380,702	2,018,559	1,646,281
72	Total Labor	55,816,431	25,254,181	7,176,525	154,858	2,559,838	313,407	344,235	112,478	659,768	1,678
73	Distribution O&M	32,779,069	20,333,051	4,855,573	154,858	2,559,838	313,407	344,235	5,877,441	32,155,784	23,067,091
74	State Revenue	750,793,699	314,219,675	113,666,419	8,328,142	127,291,267	16,194,022	18,050,768	5,877,441	13,150,268	14,511
75	Distribution Plant, Lines, Transformer & Services	579,716,929	312,604,472	73,200,775	2,691,076	53,496,273	6,092,742	7,040,957	1,802,857	13,150,268	14,511

Louisville Gas and Electric
Electric Cost of Service Study
(Allpccost Amounts)

Acct. No.	Account Description	LP-TD00 PH	LP-TD00 Sec	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SAE	OL	TLF	ST0D-PT	ST0D-Sec
1	Energy loss adjusted	\$1,874,450,757	\$45,472,475	\$163,981,442	\$221,112,251	\$80,712,032	\$53,985,418	\$3,587,427	\$60,590,772	\$3,890,989	\$14,807,401	\$100,665,978
2	Energy @ meter	\$1,796,095,890	\$42,623,261	\$147,562,400	\$211,965,000	\$58,164,000	\$50,061,164	\$3,715,467	\$58,981,223	\$3,541,646	\$14,188,200	\$97,279,200
3	Merch. Sell.	\$550	\$159	\$12	\$12	\$12	\$1,416	\$397,652	\$4,971	\$4,940	\$39	\$394
4	Average Customers (Rat/12)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
5	Average Customers (Lighting = 9 Lights)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
6	Average Customers (Lighting = 9 Lights)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
7	Weighted Average Customers (Lighting = 9 Lights)	\$20	\$59	\$20	\$20	\$20	\$3,257	\$4,244	\$4,244	\$4,244	\$3	\$32
8	Street Lighting	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
9	Average Customers (Lighting = 8 Lights Per Customer)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
10	Average Secondary Customers	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
11	Average Primary Customers	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
12	Year End Customers	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
13	Weighted Year End Customers (Lighting = 8 Lights Per Customer)	\$20	\$59	\$20	\$20	\$20	\$3,257	\$4,244	\$4,244	\$4,244	\$3	\$32
14	Street Lighting (Plant-to-Service balance)	\$18	\$5	\$1	\$1	\$1	\$4,178	\$4,178	\$4,178	\$4,178	\$3	\$32
15	Year End Customers (Lighting = 9 Lights per Customer)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
16	Year End Customers (Lighting = 9 Lights per Customer)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
17	Year End Customers (Lighting = 9 Lights per Customer)	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
18	Year End Secondary Customers	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
19	Year End Primary Customers	\$48	\$13	\$1	\$1	\$1	\$4,971	\$4,971	\$4,971	\$4,971	\$3	\$32
20	Maximum Class Non-Coincidental Peak Demands	\$235,359	\$7,059	\$21,485	\$41,039	\$12,808	\$11,759	\$859	\$1,198	\$415	\$2,588	\$17,294
21	Primary Distribution Plant - Average Number of Customers	0.0001133	0.0000216	0.0000242	0.0000242	0.0000242	0.0101858	0.0000173	0.0118840	0.0018261	0.0000778	0.0000774
22	Customer Services - Weighted Cost of Services	0.0000080	0.0007500	0.0000000	0.0000000	0.0000000	0.0000000	0.0002980	0.0000000	0.0011510	0.0000000	0.0000000
23	Meter Cost - Weighted Cost of Meters	0.00209331	0.00073935	0.00003745	0.00003599	0.00007453	0.00006911	0.00026911	0.0000000	0.0052424	0.00002332	0.00025545
24	Lighting Systems - Lighting Customers	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.418193031	0.00000000	0.58983893	0.00000000	0.00000000	0.00000000
25	Meter Reading and Billing - Weighted Cost	0.00209345	0.0005349	0.0000448	0.0000448	0.0000448	0.00739347	0.00739347	0.00832329	0.00017851	0.00000673	0.00007750
26	Marketing/Economic Development	0.0000112	0.0000140	0.00000242	0.00000242	0.00000242	0.01314454	0.00028586	0.01314454	0.00173933	0.00000725	0.00007750
27	Raw	61303559	2351093	6487749	9296472	3474978	5759622	172123	609468	24082	641988	481988
28	Maximum Class Demands (Primary)	\$235,359	\$7,059	\$21,485	\$41,039	\$12,808	\$11,759	\$859	\$1,198	\$415	\$2,588	\$17,294
29	Sum of the Individual Customer Demands (Secondary)	\$68,580	\$6,852	\$21,485	\$40,518	\$12,808	\$0	\$0	\$0	\$0	\$0	\$18,953
30	Summer Peak Period Demand Allocator	\$234,978	\$5,965	\$20,870	\$28,070	\$12,808	\$0	\$0	\$0	\$0	\$0	\$18,953
31	Winter Peak Period Demand Allocator	\$234,978	\$5,965	\$20,870	\$28,070	\$12,808	\$0	\$0	\$0	\$0	\$0	\$18,953
32	Base Demand Allocator	\$213,594	\$5,171	\$17,525	\$25,172	\$9,911	\$0,148	\$4,61	\$0,898	\$4,42	\$1,686	\$11,832
33	Production Residual Winter Demand Allocator	\$224,878	\$3,985	\$0	\$28,070	\$0	\$0	\$0	\$0	\$0	\$4,15	\$15,533
34	Production Residual Summer Demand Allocator	\$3,628,701	\$99,533	\$0	\$420,497	\$0	\$0	\$0	\$0	\$0	\$5,694	\$35,632
35	Production Residual Summer Demand Allocator	\$231,728	\$8,492	\$21,485	\$40,518	\$12,808	\$0	\$0	\$0	\$0	\$4,16	\$17,158
36	Production Residual Demand Allocator	\$2,084,435	\$57,677	\$193,228	\$394,415	\$110,090	\$0,148	\$4,61	\$0,898	\$3,732	\$21,792	\$154,115
37	Production Residual Base Demand Allocator	\$4,271,344	\$4,171	\$17,525	\$24,172	\$9,911	\$0,148	\$4,61	\$0,898	\$4,15	\$1,686	\$11,832
38	Production Base Demand Allocator	\$4,271,344	\$4,171	\$17,525	\$24,172	\$9,911	\$0,148	\$4,61	\$0,898	\$4,15	\$1,686	\$11,832
39	Distribution Cost	\$24,284,954	\$120,093	\$1,835,259	\$3,954,443	\$1,102,860	\$4,690,223	\$106,983	\$5,088,864	\$19,874	\$22,695	\$22,695
40	Total Other Revenue Allocator	\$785,990	\$12,245	\$92,594	\$1,792	\$24,227	\$49,532	\$1,627	\$98,137	\$2,222	\$4,344	\$46,968
41	Forfeited Discounts	\$14,832	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
42	Meter Revenue Allocator	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43	On-System Sales Allocator	\$18,369,931	\$463,279	\$1,188,622	\$2,295,245	\$516,126	\$338,666	\$2,4824	\$390,113	\$26,410	\$169,229	\$1,178,699
44	Interruptible Credit Allocator (Meter & Summer Peak Prod Plant)	\$149,130,578	\$3,841,427	\$4,942,327	\$30,079,154	\$2,899,243	\$0	\$0	\$0	\$266,675	\$1,489,234	\$10,359,103
45	On-Off	\$12,098,220	\$382,189	\$732,893	\$1,692,102	\$308,936	\$1,150,297	\$25,533	\$1,513,697	\$97,022	\$1,018,148	\$480,729
46	Base Rate Revenue at Current Rates	\$75,025,769	\$2,253,937	\$5,830,952	\$9,894,227	\$2,293,912	\$3,697,317	\$181,029	\$9,919,296	\$228,798	\$998,933	\$4,517,788
47	VOT Revenue	\$-788,922	\$-82,778	\$-801,488	\$-807,265	\$-823,369	\$-854,248	\$-1,025	\$-718,418	\$-2,275	\$-65,995	\$-44,922
48	Meter Surcharge Revenue	\$1,090,515	\$59,145	\$0	\$-322,624	\$-82,152	\$-144,418	\$-4,323	\$-300,832	\$-8,043	\$-119,765	\$-119,765
49	ECR Revenue	\$1,041,916	\$30,821	\$93,620	\$0	\$0	\$72,673	\$2,182	\$100,558	\$3,077	\$8,173	\$62,658
50	DSMREV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
51	Gross Production Plant	\$97,778,183	\$2,904,715	\$2,096,446	\$5,812,708	\$1,094,388	\$7,242,441	\$38,276	\$24,149	\$66,632	\$2,557,195	\$8,527,616
52	Gross Transmission Plant	\$33,294,724	\$1,189,728	\$4,163,623	\$4,928,518	\$1,189,763	\$4,663,617	\$2,272	\$63,617	\$7,873	\$27,724	\$2,588,340
53	Gross Distribution Plant	\$33,013,415	\$1,189,728	\$4,163,623	\$4,928,518	\$1,189,763	\$4,663,617	\$2,272	\$63,617	\$7,873	\$27,724	\$2,588,340
54	Gross Prod. Trans. Dist. Plant	\$34,983,032	\$1,189,728	\$4,163,623	\$4,928,518	\$1,189,763	\$4,663,617	\$2,272	\$63,617	\$7,873	\$27,724	\$2,588,340
55	Dist. Overhead Lines Gross Plant	\$4,300,056	\$420,750	\$1,078,111	\$2,082,780	\$12,789,598	\$9,884,111	\$797,093	\$2,241,889	\$57,004	\$2,959,402	\$21,907,831
56	Gross Intergrable Plant	\$2,930,523	\$0,500	\$196,657	\$0,259	\$5,748	\$287,153	\$5,148	\$3,517,333	\$46,461	\$10,717	\$96,828
57	Gross Total Plant to Service	\$74,336,918	\$2,308,911	\$1,693,915	\$4,729,915	\$13,785,915	\$41,729,915	\$808,901	\$4,729,915	\$1,004,194	\$3,083,194	\$22,007,589
58	Dist. Underground Lines Gross Plant	\$9,817,248	\$298,894	\$738,018	\$1,442,812	\$444,018	\$781,887	\$35,413	\$948,719	\$22,772	\$83,183	\$703,688
59	Gross General Plant	\$17,500,583	\$529,825	\$1,432,442	\$3,011,205	\$804,714	\$1,885,342	\$6,587	\$2,204,152	\$44,767	\$143,091	\$1,021,728
60	Labor Accts 501-607	\$2,440,000	\$59,095	\$302,427	\$301,205	\$301,205	\$83,506	\$4,655	\$71,278	\$4,986	\$18,876	\$139,332
61	Labor Accts 511-514	\$1,893,583	\$39,273	\$389,659	\$120,888	\$31,182	\$31,089	\$2,278	\$34,889	\$2,242	\$8,571	\$68,010
62	Labor Accts 520-540	\$18,774	\$482	\$1,565	\$2,358	\$858	\$479	\$39	\$338	\$38	\$154	\$1,078
63	Labor Accts 540-545	\$7,299	\$965	\$2,244	\$2,244	\$716	\$16	\$66	\$47	\$38	\$154	\$1,520
64	Labor Accts 581-588	\$28,034	\$730	\$2,244	\$2,244	\$716	\$16	\$66	\$47	\$38	\$154	\$1,520
65	Labor Accts 591-598	\$17,839	\$3,885	\$9,428	\$9,428	\$2,920	\$2,920	\$86	\$5,095	\$2,503	\$1,087	\$4,807

Louisville Gas and Electric
 Electric Cost of Service Study
 (Millions of Dollars)

Acct. No.	Account Description	LP-TOD-FM	U-TOD-SEC	Special Contract-A	Special Contract-B	Special Contract-C	PSL	SE	OL	TLE	STOD-PM	STOD-SEC
66	Labor Area 500-918	4,714,717	120,568	3,072,332	682,536	184,382	2,671,182	12,181	338,017	24,282	38,431	271,837
67	OGM 1811 Purchased Power	67,305,797	1,828,796	5,827,680	8,098,957	2,238,514	2,792,318	151,578	3,342,188	193,686	\$37,838	3,277,118
68	OGM Lines Gross Profit	24,117,741	719,745	1,816,127	3,642,879	1,030,827	2,604,673	87,689	3,188,360	69,233	210,468	1,700,316
69	Rate Base	201,059,388	5,132,028	10,698,206	25,344,220	7,214,231	22,418,070	438,111	29,502,991	548,040	1,681,445	11,597,156
70	Gross Transmission Plant	0	160,279	0	0	0	498,331	15,239	598,221	12,443	0	318,622
71	Operation Expenses	11,682,978	299,208	992,001	1,478,521	421,113	1,418,789	26,594	1,874,262	32,305	96,632	694,167
72	Total Labor	5,917,179	161,275	468,153	731,638	206,418	329,947	18,161	398,537	23,787	48,259	341,696
73	Distribution O&M	1,435,801	48,432	100,888	208,784	84,911	605,882	10,428	815,522	38,832	12,050	99,788
74	Rates Revenue	81,308,569	2,251,093	8,407,749	9,230,472	2,474,579	5,750,822	172,123	8,098,438	248,332	641,288	4,811,908
75	Distribution Power Lines, Transmission & Services	24,117,741	697,954	1,816,127	3,642,879	1,030,827	3,090,904	108,673	3,786,538	108,544	219,468	2,828,977

Louisville Gas and Electric
 Elwell Cost of Service Study
 (Alligator Payments)

Acct. No.	Account Description	Total	R	GS	LC-PI	LC-SEC	LC-TD00 Pct	LC-TD00 Sec	LC-TD00	LP-PI	LP-SEC	LP-TD00	LP-TD00 Sec
1	Energy loss adjusted	100.0000%	35.8854%	11.8857%	1.287%	18.2427%	2.8602%	28.417%	28.252%	0.619%	4.4550%	4.2165%	
2	Energy meter	100.0000%	35.6582%	11.9081%	1.2447%	18.2700%	2.8602%	28.252%	28.252%	0.619%	4.4550%	4.2165%	
3	Metering Bils	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
4	Average Customers (Gas/L2)	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
5	Average Customers (Lighting)	100.0000%	80.4307%	10.3136%	0.122%	0.090%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
6	Weighted Average Customers (Lighting = 9 Lights)	100.0000%	80.4307%	10.3136%	0.122%	0.090%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
7	Street Lighting	100.0000%	86.3210%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
8	Average Customers	100.0000%	86.3210%	10.1184%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
9	Average Customers (Lighting = 9 Lights Per Customer)	100.0000%	86.3210%	10.1184%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
10	Average Secondary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
11	Average Primary Customers	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
12	Year End Customers (Lighting = 9 Lights)	100.0000%	80.3109%	10.2983%	0.1102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
13	Weighted Year End Customers (Lighting = 9 Lights Per Customer)	100.0000%	80.3109%	10.2983%	0.1102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
14	Street Lighting (Plant-in-Service Balance)	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
15	Year End Customers (Lighting = 9 Lights per Customer)	100.0000%	80.3109%	10.1123%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
16	Year End Secondary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
17	Year End Primary Customers	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
18	Year End Non-Contract Peak Demands	100.0000%	47.2854%	12.8849%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	
19	Year End Primary Customers	100.0000%	73.0204%	8.5121%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
20	Year End Secondary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
21	Year End Tertiary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
22	Year End Quaternary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
23	Year End Quintary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
24	Year End Sextary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
25	Year End Septary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
26	Year End Octary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
27	Year End Nony Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
28	Year End Decary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
29	Year End Undecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
30	Year End Duodecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
31	Year End Tredecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
32	Year End Quattuordecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
33	Year End Quingdecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
34	Year End Sexdecary Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
35	Year End Septuaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
36	Year End Octoginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
37	Year End Nonaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
38	Year End Centum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
39	Year End Centum et Unum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
40	Year End Centum et Duo Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
41	Year End Centum et Trio Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
42	Year End Centum et Quattuor Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
43	Year End Centum et Quingdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
44	Year End Centum et Sexdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
45	Year End Centum et Septuaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
46	Year End Centum et Octoginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
47	Year End Centum et Nonaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
48	Year End Centum et Centum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
49	Year End Centum et Centum et Unum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
50	Year End Centum et Centum et Duo Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
51	Year End Centum et Centum et Trio Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
52	Year End Centum et Centum et Quattuor Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
53	Year End Centum et Centum et Quingdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
54	Year End Centum et Centum et Sexdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
55	Year End Centum et Centum et Septuaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
56	Year End Centum et Centum et Octoginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
57	Year End Centum et Centum et Nonaginta Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
58	Year End Centum et Centum et Centum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
59	Year End Centum et Centum et Centum et Unum Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
60	Year End Centum et Centum et Centum et Duo Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
61	Year End Centum et Centum et Centum et Trio Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
62	Year End Centum et Centum et Centum et Quattuor Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
63	Year End Centum et Centum et Centum et Quingdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	
64	Year End Centum et Centum et Centum et Sexdecim Customers	100.0000%	87.7483%	10.1123%	0.0102%	0.5415%	0.0021%	0.0105%	0.0090%	0.0090%	0.0090%	0.0104%	

Louisville Gas and Electric
 Electric Cost of Service Study
 [Allocated Parents]

Acct. No.	Account Description	Total	R	GS	LC-PI	LC-S&E	LC-TDD-PI	LC-TDD-SEC	LP-PI	LP-S&E	LP-TDD-Trans
65	Labor Acts 591-598	100.0000%	62.9452%	12.0788%	0.3423%	6.8828%	1.0718%	1.2811%	0.2178%	2.2609%	0.0001%
66	Labor Acts 590-616	100.0000%	45.3754%	12.8830%	0.9759%	14.0125%	2.0172%	2.1017%	0.6805%	3.6889%	2.9623%
67	ODM fees Purchased Power	100.0000%	39.8011%	12.2224%	1.1215%	16.8507%	2.1307%	2.4182%	0.7824%	4.0833%	3.6903%
68	Dist. Lines Gross Plant	100.0000%	61.6628%	12.3478%	0.6800%	8.3870%	1.1400%	1.3185%	0.4635%	2.2669%	0.0003%
69	Rate Base	100.0000%	42.2350%	12.2056%	1.0565%	14.2172%	2.1214%	2.2374%	0.7073%	3.8652%	3.0145%
70	Gross Transformer Plant	100.0000%	73.4224%	14.1845%	0.9000%	7.7142%	0.6500%	1.0040%	0.0000%	1.8862%	0.0000%
71	Depreciation Expense	100.0000%	43.1113%	12.2102%	1.0081%	14.5194%	2.0814%	2.2017%	0.6942%	3.7587%	2.9831%
72	Total Labor	100.0000%	45.2451%	12.8574%	0.9724%	14.0407%	2.0207%	2.1683%	0.6821%	3.5189%	2.9404%
73	Distribution O&M	100.0000%	62.0206%	14.8130%	0.4718%	7.8034%	0.8581%	1.0594%	0.3431%	2.0123%	0.0082%
74	Sales Revenue	100.0000%	40.2441%	14.5862%	1.0684%	16.3050%	2.0741%	2.3118%	0.7859%	4.1223%	2.9544%
75	Distribution Poles, Lines, Transform & Services	100.0000%	65.3989%	12.6437%	0.4483%	9.2130%	0.8194%	1.2144%	0.3105%	2.2640%	0.0002%

Louisiana Gas and Electric
Electric Cost of Service Study
(Allocator Percent)

Acct No.	Account Description	15-10DD Pri	15-10DD Sec	Special Contracts-A	Special Contracts-B	Special Contracts-C	PSL	SLR	OL	TLE	STOD-Pri	STOD-Sec
1	Energy loss suggested	13.859%	0.2385%	1.4475%	1.6473%	0.4524%	0.424%	0.225%	0.4516%	0.228%	0.1104%	0.7726%
2	Energy @ meter	14.174%	0.2364%	1.1944%	1.6720%	0.4593%	0.2595%	0.229%	0.4487%	0.227%	0.112%	0.7677%
3	Monthly Bils	0.0001%	0.0025%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
4	Average Customers (Lighting = 9 Lights)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
5	Weighted Average Customers (Lighting = 9 Lights)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
6	Weighted Average Customers (Lighting = 9 Lights)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
7	Street Lighting	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
8	Average Customers	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
9	Average Customers (Lighting = 9 Lights Per Customer)	0.0111%	0.0031%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
10	Average Secondary Customers	0.0001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
11	Average Primary Customers	0.0111%	0.0031%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
12	Year End Customers	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
13	Year End Customers (Lighting = 9 Lights Per Customer)	0.0111%	0.0031%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
14	Weighted Year End Customers (Lighting = 9 Lights Per Customer)	0.0111%	0.0031%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
15	Street Lighting (Plant-In-Service balance)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
16	Year End Customers	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
17	Year End Secondary Customers	0.0001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
18	Year End Primary Customers	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
19	Year End Non-Cooker Peak Demands	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
20	Primary Distribution Plant - Average Number of Customers	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
21	Customer Services - Weighted Cost of Materials	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
22	Customer Services - Weighted Cost of Materials	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
23	Lighting Systems - Weighted Cost of Materials	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
24	Water Heating and Billing - Weighted Cost	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
25	Marketing/Economic Development	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
26	Rev	0.0111%	0.0031%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
27	Maximum Class Demands (Primary)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
28	Sum of the Individual Customer Demands (Secondary)	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
29	Summer Peak Period Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
30	Winter Peak Period Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
31	Base Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
32	Production Related Winter Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
33	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
34	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
35	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
36	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
37	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
38	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
39	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
40	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
41	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
42	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
43	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
44	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
45	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
46	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
47	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
48	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
49	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
50	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
51	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
52	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
53	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
54	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
55	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
56	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
57	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
58	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
59	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
60	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
61	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
62	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
63	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%
64	Production Related Summer Demand Allocator	0.0084%	0.0023%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%	0.002%

Losaville Gas and Electric
 Electric Cost of Service Study
 (Selected Parameters)

Acct. No.	Account Description	LP-TOD Pft	LP-TOD Sec	Special Contract-A	Special Contract-B	Special Contract-C	PEL	SLE	OL	TLE	STOD-Pft	STOD-Sec
65	Labor Acct 591-508	5.0748%	0.1542%	0.3183%	0.2465%	0.2295%	1.4820%	0.0188%	1.0639%	0.0164%	0.0462%	0.2612%
66	Labor Acct 500-516	10.5747%	0.2704%	0.5066%	1.3063%	0.3695%	0.8444%	0.0273%	0.6819%	0.0543%	0.0862%	0.6099%
67	Old Line Purchased Power	12.8549%	0.3094%	1.0311%	1.5063%	0.4172%	0.6211%	0.0293%	0.6224%	0.0372%	0.1001%	0.7046%
68	Old Line Gross Plant	5.3934%	0.1611%	0.4053%	0.7837%	0.2441%	0.5830%	0.0185%	0.7197%	0.0153%	0.0401%	0.3802%
69	Rate Base	11.0109%	0.2817%	0.9990%	1.3801%	0.3695%	1.2278%	0.0229%	1.6167%	0.0300%	0.0910%	0.6319%
70	Gross Transformer Plant	0.0000%	0.1479%	0.0000%	0.0000%	0.0000%	0.4483%	0.0140%	0.5919%	0.0155%	0.0000%	0.2838%
71	Depreciation Expense	10.7728%	0.2764%	0.8006%	1.3657%	0.3695%	1.3105%	0.0271%	1.7312%	0.0289%	0.0893%	0.6412%
72	Total Labor	10.6011%	0.2710%	0.8710%	1.3112%	0.3695%	0.2759%	0.0271%	0.7104%	0.0333%	0.0863%	0.6120%
73	Distribution O&M	4.3695%	0.1417%	0.3284%	0.8595%	0.1871%	1.8483%	0.0319%	2.4699%	0.1116%	0.0398%	0.3044%
74	Sales Revenue	10.4197%	0.3011%	0.8222%	1.1820%	0.1693%	0.7365%	0.0220%	1.0374%	0.0309%	0.0821%	0.6163%
75	Distribution Poles, Lines, Transform & Services	4.1597%	0.1340%	0.3131%	0.8111%	0.1693%	0.5331%	0.0187%	0.6531%	0.0187%	0.0373%	0.3468%

LG&E
 LG&E Proposed Revenue Distribution

OAG Proposed

Class	Total Revenue @		ROR @		Indexed ROR	Increase		Percent Of System Average	ROR @		Increase		Percent Of System Average
	Current	rates 1/	Current	Rates		Amount 1/	Percent		Current	Rates	Amount	Percent	
R	\$358,721,834		5.45%		70%	\$13,673,276	3.81%	230%	7.22%	93%	\$6,987,615	1.95%	118%
GS	\$127,902,362		13.17%		169%	\$228,601	0.18%	11%	13.61%	175%	\$1,059,478	0.83%	50%
LC-Pri	\$9,970,639		9.89%		127%	\$0	0.00%	0%	8.07%	104%	\$165,183	1.66%	100%
LC-Sec	\$145,907,390		10.42%		134%	\$0	0.00%	0%	9.99%	129%	\$1,812,934	1.24%	75%
LC-TOD Pri	\$18,799,071		7.47%		96%	\$0	0.00%	0%	5.17%	67%	\$389,305	2.07%	125%
LC-TOD Sec	\$20,799,838		9.58%		123%	\$0	0.00%	0%	7.26%	93%	\$344,591	1.66%	100%
LP-Pri	\$7,200,364		11.38%		146%	\$0	0.00%	0%	9.15%	118%	\$89,468	1.24%	75%
LP-Sec	\$36,414,465		8.39%		108%	(\$8,461)	-0.03%	-2%	4.68%	60%	\$452,458	1.24%	125%
LP-TOD Trans	\$26,234,221		7.16%		92%	\$0	0.00%	0%	3.95%	51%	\$1,933,032	2.07%	125%
LP-TOD Pri	\$93,343,802		10.94%		141%	\$0	0.00%	0%	7.99%	103%	\$44,784	1.66%	100%
LP-TOD Sec	\$2,701,998		8.71%		112%	(\$145,782)	-2.05%	-124%	0.17%	2%	\$176,845	2.49%	150%
Special Contracts-A	\$7,116,358		3.67%		47%	\$0	0.00%	0%	1.50%	19%	\$270,913	2.49%	150%
Special Contracts-B	\$10,901,714		6.36%		82%	\$0	0.00%	0%	0.03%	0%	\$71,528	2.49%	150%
Special Contracts-C	\$2,878,344		6.02%		77%	\$199,009	3.39%	205%	4.29%	55%	\$121,435	2.49%	150%
PSL	\$5,883,841		11.75%		151%	\$0	0.00%	0%	0.72%	9%	\$4,805	2.49%	150%
SLE	\$193,369		8.71%		112%	\$0	0.00%	0%	7.51%	97%	\$149,549	1.66%	100%
OL	\$9,026,923		2.07%		27%	\$462,434	5.12%	309%	-0.57%	-7%	\$5,649	2.49%	150%
TLE	\$227,327		4.24%		55%	\$9,376	6.01%	249%	2.84%	37%	\$15,622	2.07%	125%
STOD-Pri	\$754,388		5.66%		73%	\$287,867	5.27%	318%	3.99%	51%	\$113,204	2.07%	125%
STOD-Sec	\$5,466,489		7.77%		100%	\$14,751,654	1.66%	100%	7.77%	100%	\$14,751,654	1.66%	100%
Total Company	\$890,424,838												

1/ Per SeeIye Exhibit 27.

**Louisville Gas and Electric
Electric Customer Cost Analysis**

		Residential			
Gross Plant					
	369 Services	\$17,979,330			
	370 Meters	\$23,419,433			
	Total Gross Plant	\$41,398,763			
Depreciation Reserve					
	Services (OVHD & UNGD)	9,168,030			
	Meters	11,942,050			
	Total Depreciation Reserve	\$21,110,080			
Total Net Plant		\$20,288,682			
Operation & Maintenance Expenses					
	Dist Oper - Meter	\$3,827,848			
	Dist Oper - Cust Installations	-\$129,111			
	Meter Reading	\$1,702,884			
	Records & Collections	\$3,830,537			
	Dist Maint - Meters	\$0			
	Total O & M Expenses	\$9,232,158			
Depreciation Expense					
	Services	\$802,015			
	Meters	\$784,171			
	Total Depreciation Expense	\$1,386,186			
Revenue Requirement					
	Interest	\$497,073			
	Equity return	\$1,084,760			
	Income Tax	\$842,949			
	Revenue For Return	2,204,771			
			PCT	Cost	WGHT Cost
			Debt	47.62%	5.18%
			Common	52.48%	10.00%
			Total	100.00%	7.70%
	Total Customer Revenue Req	\$12,823,113			
	Number of Bills	4,301,388			
	Monthly Cost	\$2.98			

Louisville Gas and Electric
Gas CCOSS
(Summary)

Account Description	Total				As Available			Special
	Residential (RGS)	Commercial (CGS)	Industrial (IGS)	Gas Service (AAGS)	Firm Transportatio n Service (FT)	Contracts (SP)		
Net Operating Income (Pro-Forma)	\$ 17,031,907	\$ 10,783,936	\$ 6,061,425	\$ 439,529	\$ 25,911	\$ 78,618	\$ (365,512)	
Unadjusted Net Cost Rate Base	\$441,457,053	\$307,727,146	\$ 94,895,404	\$ 7,179,082	\$ 1,104,798	\$ 20,581,834	\$ 9,888,990	
Depreciation Adjustment	\$ (3,488,855)	\$ (2,575,350)	\$ (645,485)	\$ (44,912)	\$ (8,125)	\$ (145,480)	\$ (69,503)	
Cash Working Capital Adjustment	\$ 517,947	\$ 373,429	\$ 103,870	\$ 8,395	\$ 1,048	\$ 20,640	\$ 10,465	
Net Cost Rate Base	\$438,486,045	\$305,525,225	\$ 94,453,789	\$ 7,142,566	\$ 1,097,719	\$ 20,456,794	\$ 9,809,952	
Rate of Return -- Pro-Forma	3.88%	3.53%	6.42%	6.15%	2.36%	0.37%	-3.73%	

Louisville Gas and Electric
Gas CCOSS
(Rate Base)

Acct. No.	Account Description	Alloc	Total	Residential (RGS)	Commercial (CGS)	Industrial (IGS)	As Available Gas Service (AAGS)	Firm Transportation Service (FTS)	Special Contracts (SP)
Plant-in-Service									
	Underground Storage Plant		\$ 61,770,449	\$ 41,045,197	\$ 19,155,076	\$ 1,570,178	\$ -	\$ -	\$ -
350-357	Underground Storage Plant		\$ 541,132	\$ 359,571	\$ 167,806	\$ 13,755	\$ -	\$ -	\$ -
358	Asset Relieve Obligations Gas Plant		\$ 62,311,551	\$ 41,404,768	\$ 19,322,882	\$ 1,583,931	\$ -	\$ -	\$ -
	Sub-total								
Transmission Plant									
365-371	Transmission Demand	\$ 12,901,908	\$ 12,901,908	\$ 8,573,053	\$ 4,000,894	\$ 327,960	\$ -	\$ -	\$ -
	Customer		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Sub-total		\$ 12,901,908	\$ 8,573,053	\$ 4,000,894	\$ 327,960	\$ -	\$ -	\$ -
Distribution Plant									
374	Land and Land Rights		\$ 133,743	\$ 73,806	\$ 34,090	\$ 2,689	\$ 889	\$ 12,211	\$ 10,065
375	Structures and Improvements		\$ 729,373	\$ 402,502	\$ 185,913	\$ 14,631	\$ 4,846	\$ 66,591	\$ 54,891
376	Mains	\$ 279,586,446	\$ 279,586,446	\$ 179,713,308	\$ 83,008,806	\$ 653,242	\$ 216,387	\$ 2,973,210	\$ 2,450,803
	L/M Pressure Demand		\$ 208,340,477	\$ 116,618,842	\$ 55,471,558	\$ 4,879,308	\$ 966,334	\$ 21,138,257	\$ 9,266,178
	Customer Demand		\$ 36,241,631	\$ 33,389,038	\$ 2,827,574	\$ 22,795	\$ 445	\$ 1,779	\$ -
	H Pressure Demand		\$ 32,565,757	\$ 17,971,308	\$ 8,300,806	\$ 653,242	\$ 216,387	\$ 2,973,210	\$ 2,450,803
	Customer		\$ 2,438,581	\$ 2,248,136	\$ 190,231	\$ 1,556	\$ 120	\$ 516	\$ 22
378	Meas. & Reg. Station Equip.- Gen.		\$ 8,254,321	\$ 4,555,120	\$ 2,103,974	\$ 165,575	\$ 54,847	\$ 753,608	\$ 621,196
379	Meas. & Reg. Station Equip.- City Gate		\$ 3,864,491	\$ 2,132,607	\$ 985,034	\$ 77,518	\$ 25,678	\$ 352,823	\$ 290,830
380	Services		\$ 137,878,756	\$ 126,896,285	\$ 10,761,244	\$ 100,238	\$ 33,780	\$ 81,431	\$ 5,777
381	Meters		\$ 22,084,789	\$ 17,068,163	\$ 3,978,641	\$ 224,448	\$ 75,773	\$ 697,261	\$ 40,504
382	Meter Installations		\$ 9,381,447	\$ 7,250,423	\$ 1,690,096	\$ 95,344	\$ 32,188	\$ 296,191	\$ 17,208
383	House Regulators		\$ 4,941,391	\$ 3,818,939	\$ 880,208	\$ 50,219	\$ 16,954	\$ 158,010	\$ 9,083
384	House Regulators Installations		\$ 5,298,054	\$ 4,094,585	\$ 954,460	\$ 53,844	\$ 18,178	\$ 167,270	\$ 9,717
385	Indust. Meas. & Reg. Station Equip.		\$ 159,362	\$ 123,182	\$ 28,710	\$ 1,620	\$ 547	\$ 5,031	\$ 292
387	Other Equipment		\$ 51,112	\$ 39,502	\$ 9,208	\$ 519	\$ 175	\$ 1,614	\$ 94
388	Asset Relieve Obligations Gas Plant - City Gate		\$ 1,093	\$ 587	\$ 271	\$ 21	\$ 7	\$ 97	\$ 80
	Asset Relieve Obligations Gas Plant - Mains	\$ 29,707	\$ 29,707	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	L/M Pressure Demand		\$ 22,137	\$ 12,391	\$ 5,894	\$ 518	\$ 103	\$ 2,246	\$ 985
	Customer		\$ 3,851	\$ 3,548	\$ 300	\$ 2	\$ 0	\$ 0	\$ -
	H Pressure Demand		\$ 3,480	\$ 1,509	\$ 882	\$ 69	\$ 23	\$ 316	\$ 260
	Customer		\$ 259	\$ 239	\$ 20	\$ 0	\$ 0	\$ 0	\$ 0
	Sub-total		\$ 472,394,055	\$ 336,699,093	\$ 88,419,113	\$ 6,344,151	\$ 1,447,273	\$ 26,706,462	\$ 12,777,962

Louisville Gas and Electric
Gas CCROSS
(Rate Base)

Acct. No.	Account Description	Alloc	Total	Residential (RGS)		Commercial (CGS)		Industrial (IGS)		As Available Gas Service (AAGS)		Transportation Service (FT)		Firm Contracts (SP)	
117	Gas Stored Underground/Non-Current		\$ 2,139,990	\$ 1,421,979	\$ 663,613	\$ 54,398	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
301-303	Intangible Plant		\$ 1,187	\$ 839	\$ 242	\$ 18	\$ 3	\$ 58	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
389-399	General Plant		\$ 9,038,473	\$ 6,382,251	\$ 1,844,359	\$ 136,259	\$ 705,531	\$ 123,679	\$ 440,800	\$ 2,109,905	\$ -	\$ -	\$ -	\$ -	\$ -
	Common Utility Plant		\$ 46,798,536	\$ 33,043,993	\$ 9,549,138	\$ 705,531	\$ 147,570	\$ 2,282,296	\$ 1,091,958	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Sub-total		\$ 57,976,186	\$ 40,849,062	\$ 12,057,353	\$ 896,216	\$ 147,570	\$ 2,723,095	\$ 1,302,891	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PLANT-IN-SERVICE			\$605,583,729	\$427,525,977	\$123,800,242	\$ 9,152,259	\$ 1,594,842	\$ 28,429,557	\$ 14,080,853	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Work In Progress			\$ 5,807,802	\$ 3,859,165	\$ 1,801,005	\$ 147,632	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Underground Storage			\$ 937,105	\$ 622,687	\$ 290,597	\$ 23,821	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission															
Distribution Mains			\$ 25,956,033												
LM Pressure			\$ 19,341,754	\$ 10,826,571	\$ 5,149,826	\$ 452,981	\$ 89,712	\$ 1,962,417	\$ 860,246	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demand			\$ 3,364,573	\$ 3,099,746	\$ 262,504	\$ 2,116	\$ 41	\$ 165	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer															
H Pressure			\$ 3,023,315	\$ 1,688,407	\$ 770,624	\$ 60,645	\$ 20,089	\$ 276,025	\$ 227,526	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demand			\$ 226,391	\$ 208,525	\$ 17,680	\$ 144	\$ 11	\$ 48	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Customer			\$ 29,497,248	\$ 21,024,178	\$ 5,521,070	\$ 396,142	\$ 90,371	\$ 1,667,606	\$ 797,882	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Distribution			\$ 502,110	\$ 354,550	\$ 102,459	\$ 7,570	\$ 1,327	\$ 24,488	\$ 11,716	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General			\$ 9,331,195	\$ 6,588,948	\$ 1,904,091	\$ 140,682	\$ 24,681	\$ 455,078	\$ 217,736	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Common			\$ 72,031,493	\$ 48,252,777	\$ 15,819,837	\$ 1,231,734	\$ 226,212	\$ 4,385,825	\$ 2,115,108	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total			\$677,615,222	\$475,778,754	\$139,620,079	\$ 10,383,993	\$ 1,821,055	\$ 33,815,381	\$ 16,195,961	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL GAS PLANT AT ORIGINAL COST															
LESS															
Depreciation Reserve															
Underground Storage			\$ 33,664,748	\$ 22,369,535	\$ 10,439,471	\$ 855,742	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission			\$ 12,066,638	\$ 8,018,032	\$ 3,741,876	\$ 306,728	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Distribution			\$ 159,528,317	\$ 113,703,886	\$ 29,859,293	\$ 2,142,431	\$ 488,747	\$ 9,018,820	\$ 4,315,141	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General and Intangible			\$ 5,750,062	\$ 4,060,237	\$ 1,173,338	\$ 86,691	\$ 15,197	\$ 280,427	\$ 134,173	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Common			\$ 21,839,804	\$ 15,420,627	\$ 4,458,350	\$ 329,254	\$ 57,718	\$ 1,065,084	\$ 509,590	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total			\$232,848,567	\$163,572,517	\$ 49,670,327	\$ 3,720,847	\$ 561,661	\$ 10,384,311	\$ 4,958,904	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Rate Base Items															
Customer Advances for Construction			\$ 8,042,634	\$ 5,724,167	\$ 1,494,059	\$ 108,987	\$ 23,447	\$ 468,130	\$ 225,844	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accum. Deferred Income Taxes			\$ 51,050,223	\$ 36,047,609	\$ 10,417,131	\$ 769,662	\$ 134,921	\$ 2,489,666	\$ 1,191,214	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FAS 109 Deferred Income Taxes			\$ 4,502,012	\$ 3,178,963	\$ 918,685	\$ 67,875	\$ 11,898	\$ 219,580	\$ 105,051	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Asset Retirement Obligation - Net Assets			\$ 149,250	\$ 104,846	\$ 31,837	\$ 2,385	\$ 380	\$ 6,643	\$ 3,179	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Asset Retirement Obligation - Liabilities			\$ (7,928,279)	\$ (5,569,483)	\$ (1,691,229)	\$ (126,691)	\$ (19,124)	\$ (352,895)	\$ (168,846)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Louisiana Gas and Electric
Gas CCOSS
(Expenses)

Acct. No.	Account Description	Total					Residential (RCS)		Commercial (CCS)		Industrial (IGI)		As Available (AAO) (AAO) (AAO) (AAO)		Firm Contract (FC)		Special		
874.1	Cost Gross - Right of Way	\$	630,819	\$	347,478	\$	166,486	\$	12,630	\$	4,184	\$	57,647	\$	47,388	\$	1,251	\$	81,040
875	Meas and Reg South Exp - General	\$	310,000	\$	244,004	\$	57,048	\$	3,221	\$	1,087	\$	14,759	\$	12,158	\$	2,591	\$	7,519
876	Meas and Reg Station Exp - Industrial	\$	181,563	\$	80,158	\$	41,181	\$	3,241	\$	102	\$	78	\$	7,002	\$	497	\$	35
877	Meas and Reg Station Exp - City Cash	\$	221,770	\$	171,384	\$	38,662	\$	2,258	\$	10	\$	180,718	\$	88,485	\$	201	\$	88,485
878	Meas and Reg Station Exp - City Cash	\$	9,859	\$	2,278,335	\$	1,808	\$	120,091	\$	28,808	\$	524,538	\$	275,335	\$		\$	
881	Other Expenses	\$	6,277,441	\$	5,748,048	\$	1,620,508	\$	120,091	\$	28,808	\$	524,538	\$	275,335	\$		\$	
Sub-total		\$	6,328,302	\$	285,084	\$	138,676	\$	10,758	\$	3,563	\$	48,833	\$	40,353	\$		\$	
884	Maintenance Sur and Exp'	\$	4,714,284	\$	2,804,810	\$	1,265,101	\$	110,407	\$	21,086	\$	470,318	\$	208,872	\$		\$	
885	Maintenance Structures	\$	620,000	\$	703,510	\$	63,981	\$	518	\$	10	\$	40	\$		\$		\$	
887	Maintenance Utility	\$	739,800	\$	400,046	\$	187,628	\$	14,781	\$	4,290	\$	8,277	\$	58,458	\$		\$	
Customer		\$	56,778	\$	89,824	\$	4,304	\$	35	\$	12	\$		\$		\$		\$	
Demand		\$	64,271	\$	35,523	\$	18,408	\$	1,281	\$	428	\$	5,817	\$	4,844	\$		\$	
H Pressure		\$	98,086	\$	75,805	\$	37,070	\$	887	\$	337	\$	3,097	\$	180	\$		\$	
Customer		\$	204,702	\$	148,108	\$	67,480	\$	5,211	\$	1,759	\$	24,172	\$	19,025	\$		\$	
Demand		\$	2,195,216	\$	2,020,381	\$	1,713,334	\$	1,580	\$	538	\$	1,298	\$	92	\$		\$	
888	Maintenance Comp, Station Equip	\$	255,397	\$	151,079	\$	47,248	\$	3,420	\$	782	\$	14,434	\$	9,920	\$		\$	
889	Maintenance Meas and Reg - Industrial	\$	5,740,330	\$	6,070,468	\$	1,988,894	\$	18,810	\$	54,181	\$	64,468	\$	33,420	\$		\$	
890	Maintenance Meas and Reg - Industrial	\$	32,236,876	\$	31,783,224	\$	10,481,862	\$	847,177	\$	106,790	\$	2,882,768	\$	1,056,040	\$		\$	
Sub-total		\$	32,236,876	\$	31,783,224	\$	10,481,862	\$	847,177	\$	106,790	\$	2,882,768	\$	1,056,040	\$		\$	
TOTAL GAS Expenses		\$	2,877,108	\$	2,423,021	\$	224,525	\$	18,600	\$	1,292	\$	10,918	\$	485	\$		\$	
Sub-total		\$	2,877,108	\$	2,423,021	\$	224,525	\$	18,600	\$	1,292	\$	10,918	\$	485	\$		\$	
Customer Service & Information Expenses		\$	28,965	\$	27,121	\$	2,513	\$	188	\$	14	\$	123	\$	5	\$		\$	
Sub-total		\$	28,965	\$	27,121	\$	2,513	\$	188	\$	14	\$	123	\$	5	\$		\$	
TOTAL - Customer Accounts - Services		\$	3,888,090	\$	3,754,447	\$	832,058	\$	83,987	\$	5,449	\$	48,087	\$	1,847	\$		\$	
Sub-total		\$	3,888,090	\$	3,754,447	\$	832,058	\$	83,987	\$	5,449	\$	48,087	\$	1,847	\$		\$	
Administrative & General Expenses		\$	3,420,447	\$	2,398,771	\$	729,433	\$	60,202	\$	8,314	\$	181,447	\$	82,040	\$		\$	
Sub-total		\$	3,420,447	\$	2,398,771	\$	729,433	\$	60,202	\$	8,314	\$	181,447	\$	82,040	\$		\$	
820	Admin and General Salaries	\$	1,771,717	\$	1,234,979	\$	378,050	\$	31,670	\$	4,181	\$	83,209	\$	42,273	\$		\$	
821	Other Salaries and Expenses	\$	1,627,510	\$	1,163,792	\$	351,383	\$	28,532	\$	4,133	\$	98,238	\$	40,767	\$		\$	
822	Admin, Expenses Traveled	\$	13,971,249	\$	1,082,243	\$	423,861	\$	34,870	\$	4,713	\$	83,000	\$	47,859	\$		\$	
823	Outside Services Employed	\$	5,706,610	\$	403,738	\$	42,922	\$	3,192	\$	560	\$	10,288	\$	4,978	\$		\$	
824	Property Insurance	\$	5,706,610	\$	3,877,781	\$	1,371,282	\$	10,441	\$	1,307	\$	27,203	\$	13,520	\$		\$	
825	Liabilities and Damages	\$	816,610	\$	385,748	\$	190,743	\$	7,083	\$	1,382	\$	28,832	\$	1,844	\$		\$	
826	Employee Pensions and Benefits	\$	78,843	\$	65,359	\$	19,245	\$	1,208	\$	212	\$	(42,260)	\$	(71,417)	\$		\$	
827	Franchise Royalties	\$	(89,879)	\$	(87,259)	\$	(91,004)	\$	(6,174)	\$	(459)	\$	(1,418)	\$	(719)	\$		\$	
828	Regulatory Commission Fee	\$	(29,865)	\$	(21,205)	\$	(6,174)	\$	(459)	\$	(81)	\$	(3,214)	\$	(1,848)	\$		\$	
829	Depreciation Charges - Credit	\$	99,015	\$	48,142	\$	14,660	\$	1,208	\$	928	\$	17,223	\$	8,255	\$		\$	
830	General Advertising Expense	\$	348,572	\$	242,489	\$	71,103	\$	5,283	\$	928	\$	17,223	\$	8,255	\$		\$	
831	Rents	\$		\$		\$		\$		\$			\$		\$		\$		

Louisville Gas and Electric
Gas CCOSS
(Allocation Amount)

Acct No.	Account Description	Alloc Total	Residential (RGS)				Commercial (CGS)		Industrial (IGS)		As Available (AAGS)			Special Contracts (SP)
			Residential (RGS)	Commercial (CGS)	Industrial (IGS)	Gas Service (AAGS)	Firm n Service (FT)	Transportatio n Service (FT)						
1	Procurement Expenses	\$ 44,604,231	\$ 20,484,024	\$ 10,491,813	\$ 1,154,680	\$ 358,749	\$ 8,101,129	\$ 4,033,837						
2	Storage	\$ 24,047,389	\$ 15,498,824	\$ 7,542,835	\$ 690,700	\$ (22,051)	\$ 209,030	\$ 128,050						
3	Transmission	\$ 24,047,389	\$ 15,498,824	\$ 7,542,835	\$ 690,700	\$ (22,051)	\$ 209,030	\$ 128,050						
4	Distribution	\$ 44,604,231	\$ 20,464,024	\$ 10,491,813	\$ 1,154,680	\$ 358,749	\$ 8,101,129	\$ 4,033,837						
5	Adjusted Deliveries	\$ 47,757,220	\$ 22,405,080	\$ 11,210,089	\$ 1,182,410	\$ 368,188	\$ 8,343,343	\$ 4,248,113						
6	Procurement Expenses	\$ 590,403	\$ 325,812	\$ 150,490	\$ 11,843	\$ 3,923	\$ 53,903	\$ 44,432						
7	Storage	\$ 12,340,000	\$ 8,189,677	\$ 3,826,646	\$ 313,677	\$ -	\$ -	\$ -						
8	Transmission	\$ 12,340,000	\$ 8,189,677	\$ 3,826,646	\$ 313,677	\$ -	\$ -	\$ -						
9	Distribution Structures	\$ 590,403	\$ 325,812	\$ 150,490	\$ 11,843	\$ 3,923	\$ 53,903	\$ 44,432						
10	High Pressure Distribution Mains	\$ 590,403	\$ 325,812	\$ 150,490	\$ 11,843	\$ 3,923	\$ 53,903	\$ 44,432						
11	Low/Medium Pressure Distribution Mains	\$ 500,974	\$ 325,812	\$ 149,179	\$ 11,062	\$ 785	\$ 14,136	\$ -						
12	High Pressure Distrib Mains (yr-end cust.)	\$ 326,002	\$ 300,275	\$ 25,431	\$ 208	\$ 16	\$ 69	\$ 3						
13	Low/Med Pres. Distrib Mains (yr-end cust.)	\$ 325,929	\$ 300,275	\$ 25,431	\$ 205	\$ 4	\$ 16	\$ -						
14	Services	\$ 151,937,410	\$ 139,635,124	\$ 11,858,502	\$ 110,458	\$ 37,225	\$ 89,734	\$ 6,366						
15	Meters	\$ 46,190,089	\$ 35,697,872	\$ 8,321,283	\$ 469,430	\$ 158,478	\$ 1,458,313	\$ 84,713						
16	Customer Count (Average)	\$ 325,556	\$ 299,990	\$ 25,271	\$ 208	\$ 16	\$ 68	\$ 3						
17	Customer Accounts	\$ 6,981,017	\$ 6,304,706	\$ 585,014	\$ 47,009	\$ 4,182	\$ 28,980	\$ 1,147						
18	Customer Service	\$ 331,448	\$ 299,990	\$ 27,798	\$ 2,080	\$ 160	\$ 1,360	\$ 60						
19	Forfeited Discounts	\$ 1,838,323	\$ 1,540,850	\$ 276,629	\$ 20,844	\$ -	\$ -	\$ -						
20	Net Income Before Income Tax	\$ 20,518,438	\$ 9,354,252	\$ 7,048,147	\$ 618,538	\$ 134,681	\$ 2,474,619	\$ 888,201						
21	Interest Expense	\$ 10,397,327	\$ 7,669,742	\$ 2,270,850	\$ 153,873	\$ 15,421	\$ 220,256	\$ 67,185						
22	Interest Adjustment	\$ 330,392	\$ 243,719	\$ 72,160	\$ 4,890	\$ 490	\$ 6,999	\$ 2,135						
23	Taxable Income	\$ 8,790,719	\$ 1,440,791	\$ 4,705,137	\$ 459,775	\$ 118,770	\$ 2,247,364	\$ 818,891						
24	Total Distribution Expense	\$ 26,974,573	\$ 19,453,189	\$ 5,778,232	\$ 391,076	\$ 60,005	\$ 906,068	\$ 386,004						
25	Meter Cost	\$ 46,190,089	\$ 35,697,872	\$ 8,321,283	\$ 469,430	\$ 158,478	\$ 1,458,313	\$ 84,713						
26	Number of Customers	\$ 326,002	\$ 300,275	\$ 25,431	\$ 208	\$ 18	\$ 69	\$ 3						
27	Services Cost	\$ 151,937,410	\$ 139,635,124	\$ 11,858,502	\$ 110,458	\$ 37,225	\$ 89,734	\$ 6,366						
28	Actual Revenue	\$ 93,106,470	\$ 64,534,283	\$ 21,745,208	\$ 1,649,829	\$ 200,259	\$ 3,701,009	\$ 1,275,882						
29	DSM Allocation	\$ 1,008,572	\$ 1,017,332	\$ (8,291)	\$ -	\$ (91)	\$ (378)	\$ -						
30	Miscellaneous Revenue Allocation	\$ 595,857	\$ 81,937	\$ 413,779	\$ -	\$ -	\$ 100,140	\$ -						
31	VDT Revenue	\$ (1,878,111)	\$ (1,217,277)	\$ (574,108)	\$ (56,364)	\$ (16,545)	\$ (5,197)	\$ (6,620)						
32	High Pressure System	\$ 26,909,794	\$ 15,542,281	\$ 6,527,535	\$ 503,380	\$ 168,441	\$ 2,286,670	\$ 1,864,087						
33	PTD Plant	\$ 547,607,544	\$ 386,676,915	\$ 111,742,889	\$ 8,256,043	\$ 1,447,273	\$ 26,706,462	\$ 12,777,962						
34	Dist Plant	\$ 472,394,055	\$ 336,699,093	\$ 88,419,113	\$ 6,344,151	\$ 1,447,273	\$ 26,706,462	\$ 12,777,962						
35	Mains + Services	\$ 417,465,202	\$ 297,121,610	\$ 77,551,413	\$ 5,657,139	\$ 1,217,066	\$ 24,185,193	\$ 11,722,781						
36	Depreciation Reserve	\$ 232,848,567	\$ 163,572,517	\$ 49,670,327	\$ 847,177	\$ 105,796	\$ 2,082,786	\$ 1,056,040						
37	O&M Expense	\$ 52,256,676	\$ 37,683,234	\$ 10,481,642	\$ 213,008	\$ 28,708	\$ 571,380	\$ 290,278						
38	Labor Excl. A&G	\$ 12,166,046	\$ 8,480,347	\$ 2,582,324	\$ -	\$ -	\$ -	\$ -						

Louisville Gas and Electric
Gas CCOSS
(Allocation Amount)

Acct. No.	Account Description	Alloc	Total	Residential (RGS)					Commercial (CGS)		Industrial (IGS)		As Available Firm		
				Residential (RGS)	Commercial (CGS)	Industrial (IGS)	Gas Service (AAGS)	Transmission Service (FT)	Special Contracts (SP)	Residential (RGS)	Commercial (CGS)	Industrial (IGS)	Gas Service (AAGS)	Transmission Service (FT)	Special Contracts (SP)
39	PTD Plant + CWIP		\$677,615,222	\$475,776,754	\$139,620,079	\$10,383,993	\$1,821,055	\$33,815,361	\$16,195,961						
40	Total Labor		\$15,313,282	\$10,680,829	\$3,244,289	\$266,315	\$36,344	\$720,523	\$384,981						
41	Depreciation Expenses		\$19,232,812	\$14,196,984	\$3,558,330	\$247,583	\$44,789	\$801,980	\$383,147						
42	Rate Base		\$441,457,053	\$307,727,146	\$94,995,404	\$7,179,082	\$1,104,796	\$20,581,634	\$9,868,990						
43	Peak & Avg.		100.0000%	55.9751%	26.6254%	2.3420%	0.4636%	10.1460%	4.4476%						

Louisville Gas and Electric
Gas COOSS
(Allocation Percent)

Ac ct. No.	Account Description	Alloc	Total	Residential (RGS)		Commercial (CGS)		Industrial (IGS)		As Available Gas Service (AAGS)		Firm Transportation Service (FT)		Special Contracts (SP)	
1	Procurement Expenses		100.0000%	45.8791%	23.5220%	2.5887%	0.8043%	18.1622%	9.0436%						
2	Storage		100.0000%	64.4512%	31.3665%	2.8722%	-0.0917%	0.8892%	0.5325%						
3	Transmission		100.0000%	64.4512%	31.3665%	2.8722%	-0.0917%	0.8692%	0.5325%						
4	Distribution		100.0000%	45.8791%	23.5220%	2.5887%	0.8043%	18.1622%	9.0436%						
5	Adjusted Deliveries		100.0000%	46.9145%	23.4731%	2.4759%	0.7710%	17.4703%	8.8952%						
6	Procurement Expenses		100.0000%	55.1847%	25.4894%	2.0059%	0.6645%	9.1299%	7.5257%						
7	Storage		100.0000%	66.4479%	31.0101%	2.5420%	0.0000%	0.0000%	0.0000%						
8	Transmission		100.0000%	66.4479%	31.0101%	2.5420%	0.0000%	0.0000%	0.0000%						
9	Distribution Structures		100.0000%	55.1847%	25.4894%	2.0059%	0.6645%	9.1299%	7.5257%						
10	High Pressure Distribution Mains		100.0000%	55.1847%	25.4894%	2.0059%	0.6645%	9.1299%	7.5257%						
11	Low/Medium Pressure Distribution Mains		100.0000%	65.0357%	29.7778%	2.2081%	0.1567%	2.8217%	0.0009%						
12	High Pressure Distrib Mains (yr-end cust.)		100.0000%	92.1290%	7.8020%	0.0629%	0.0049%	0.0212%	0.0009%						
13	Low/Med Pres. Distrib Mains (yr-end cust.)		100.0000%	92.1083%	7.8020%	0.0629%	0.0049%	0.0212%	0.0009%						
14	Services		100.0000%	92.0347%	7.8049%	1.0163%	0.0245%	0.0591%	0.0042%						
15	Meters		100.0000%	77.2847%	18.0153%	0.0639%	0.3431%	3.1572%	0.1834%						
16	Customer Count (Average)		100.0000%	92.1470%	7.7624%	0.6734%	0.0649%	0.0209%	0.0009%						
17	Customer Accounts		100.0000%	90.3121%	8.5233%	0.6275%	0.0483%	0.4103%	0.0181%						
18	Customer Service		100.0000%	90.5089%	8.3869%	0.6275%	0.0483%	0.4103%	0.0181%						
19	Forgoited Discounts		100.0000%	83.8182%	15.0479%	1.1339%	0.0000%	0.0000%	0.0000%						
20	Net Income Before Income Tax		100.0000%	45.5895%	34.3503%	3.0145%	0.6564%	12.0605%	4.3288%						
21	Interest Expense		100.0000%	73.7665%	21.8407%	1.4799%	0.1483%	2.1184%	0.6462%						
22	Interest Adjustment		100.0000%	73.7665%	21.8407%	1.4799%	0.1483%	2.1184%	0.6462%						
23	Taxable Income		100.0000%	14.7159%	48.0571%	4.6960%	1.2131%	22.9540%	8.3638%						
24	Total Distribution Expense		100.0000%	72.1169%	21.4210%	1.4498%	0.2225%	3.3560%	1.4310%						
25	Meter Cost		100.0000%	77.2847%	18.0153%	1.0163%	0.3431%	3.1572%	0.1834%						
26	Number of Customers		100.0000%	92.1083%	7.8009%	0.0638%	0.0049%	0.0212%	0.0009%						
27	Services Cost		100.0000%	92.0347%	7.8049%	1.0163%	0.0245%	0.0591%	0.0042%						
28	Actual Revenue		100.0000%	69.3124%	23.3552%	1.7720%	0.2151%	3.9750%	1.3703%						
29	DSM Allocation		100.0000%	100.8686%	-0.8221%	0.0000%	-0.0090%	-0.0375%	0.0000%						
30	Miscellaneous Revenue Allocation		100.0000%	13.7512%	69.4427%	0.0000%	0.0000%	16.8061%	0.0000%						
31	VDT Revenue		100.0000%	64.8830%	30.6010%	3.0043%	0.8819%	0.2770%	0.3529%						
32	High Pressure System		100.0000%	57.7570%	24.2571%	1.8708%	0.6185%	4.8769%	7.0015%						
33	PTD Plant		100.0000%	70.6121%	18.74057%	1.5078%	0.2643%	4.8769%	2.3334%						
34	Dist Plant		100.0000%	71.2750%	16.7172%	1.3430%	0.3064%	5.6534%	2.7049%						
35	Mains + Services		100.0000%	71.1728%	18.5767%	1.3551%	0.2915%	5.7957%	2.8081%						
36	Depreciation Reserve		100.0000%	70.2485%	21.3315%	1.5980%	0.2412%	4.4511%	2.1297%						
37	O&M Expense		100.0000%	72.1118%	20.0580%	1.6212%	0.2025%	3.9857%	2.0209%						
38	Labor Excl. A&G		100.0000%	69.7050%	21.2257%	1.7509%	0.2360%	4.6965%	2.3860%						

Louisville Gas and Electric
Gas CCOSS
(Allocation Percent)

Ac cl No.	Account Description	Alloc	Total	Residential (RGS)	Commercial (CGS)	Industrial (IGS)	As Available Gas Service (AAGS)	Firm Transportatio n Service (FT)	Special Contracts (SP)
39	PTD Plant + CWIP		100.0000%	70.2137%	20.6046%	1.5324%	0.2687%	4.9904%	2.3901%
40	Total Labor		100.0000%	69.7488%	21.1861%	1.7391%	0.2373%	4.7052%	2.3834%
41	Depreciation Expenses		100.0000%	73.8165%	18.5013%	1.2873%	0.2329%	4.1699%	1.9922%
42	Rate Base		100.0000%	69.7072%	21.5186%	1.6262%	0.2503%	4.6622%	2.2355%
43	Peak & Avg.		100.0000%	55.9751%	26.6254%	2.3420%	0.4638%	10.1460%	4.4476%

Louisville Gas and Electric
Gas CCOSS
(Salaries and Wages)

Acct. No.	Account Description	Alloc	Total	Residential/Commercial/Industrial					As Available			Firm	Special
				(RGS)	(CGS)	(IGS)	(AAGS)	n Service (FT)	Contracts (SP)				
807-913	Procurement Expenses	\$ 481,886	\$ 56,573	\$ 31,220	\$ 14,420	\$ 1,135	\$ 376	\$ 5,165	\$ 4,288				
	Demand		\$ 425,313	\$ 195,130	\$ 100,042	\$ 11,010	\$ 3,421	\$ 77,246	\$ 38,484				
	Commodity		\$ 481,886	\$ 226,349	\$ 114,462	\$ 12,145	\$ 3,787	\$ 82,411	\$ 42,721				
	Sub-total												
Storage Expenses													
814	Operations Supervision and Engineer Demand	\$ 303,331	\$ 84,868	\$ 56,393	\$ 26,318	\$ 2,167	\$ -	\$ -	\$ -				
	Commodity		\$ 218,463	\$ 140,802	\$ 68,524	\$ 6,275	\$ (200)	\$ 1,899	\$ 1,163				
815	Maps and Records		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
816	Well Expenses		\$ 15,841	\$ 10,526	\$ 4,912	\$ 403	\$ -	\$ -	\$ -				
817	Lines Expenses		\$ 315,936	\$ 209,933	\$ 97,972	\$ 10,605	\$ (339)	\$ 3,210	\$ 1,966				
818	Compressor Station Exp - Payroll		\$ 369,233	\$ 237,975	\$ 115,816	\$ -	\$ -	\$ -	\$ -				
819	Compressor Station Fuel and Power		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
820	Measurement and Regulator Station		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
821	Purification of Natural Gas		\$ 484,806	\$ 312,463	\$ 152,067	\$ 13,925	\$ (445)	\$ 4,214	\$ 2,582				
823	Gas losses		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
824	Other Expenses		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
825	Storage Well Royalties		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
826	Rentals		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
	Total Storage Operation Labor		\$ 1,489,148	\$ 988,093	\$ 465,609	\$ 41,396	\$ (983)	\$ 9,323	\$ 5,711				
Storage Expense Maintenance													
830	Maintenance Super and Eng. Demand	\$ 223,206	\$ 87,531	\$ 58,163	\$ 27,143	\$ 2,225	\$ -	\$ -	\$ -				
	Commodity		\$ 135,675	\$ 87,444	\$ 42,557	\$ 3,897	\$ (124)	\$ 1,179	\$ 722				
831	Maintenance of Structures		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
832	Maintenance of Reservoirs		\$ 167,523	\$ 111,316	\$ 51,949	\$ 4,258	\$ -	\$ -	\$ -				
834	Main of Compressor Station Equipment		\$ 384,777	\$ 247,993	\$ 120,691	\$ 11,052	\$ (353)	\$ 3,345	\$ 2,049				
835	Main of Meas and Reg Sta. Equip		\$ 43,610	\$ 28,978	\$ 13,523	\$ 1,109	\$ -	\$ -	\$ -				
836	Main of Purification Equip		\$ 122,286	\$ 78,915	\$ 38,357	\$ 3,512	\$ (112)	\$ 1,063	\$ 651				
837	Main of Other Equipment		\$ 59,500	\$ 38,872	\$ 18,141	\$ 1,487	\$ -	\$ -	\$ -				
	Total Maintenance Labor		\$ 1,057,401	\$ 692,181	\$ 324,095	\$ 28,407	\$ (437)	\$ 8,391	\$ 4,764				
	Total Storage Labor		\$ 2,546,548	\$ 1,680,274	\$ 789,704	\$ 69,803	\$ (1,421)	\$ 17,714	\$ 10,475				

Louisville Gas and Electric
Gas COOSS
(Salaries and Wages)

Acct. No.	Account Description	Alloc	Total	Residential (RGS)				Commercial (CGS)				Industrial (IGS)				As Available (AAGS)				Firm			
850-867	Transmission Expenses		\$ 483,786	\$ 321,473	\$ 150,026	\$ 12,298	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Distribution Expenses																							
870	Operation Supr and Engr		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
871	Dielt Load Dispatching		\$ 278,731	\$ 127,879	\$ 65,563	\$ 7,216	\$ 2,242	\$ 50,624	\$ 25,207	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
872	Compr. Station Labor and Exp.		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
873	Compr. Station Fuel and Power		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.01	Other Mains/Serv. Expenses		\$ 445,847	\$ 317,180	\$ 82,787	\$ 8,039	\$ 1,299	\$ 25,829	\$ 12,514	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.02	Leak Survey-Mains		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.03	Leak Survey - Service		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.04	Locate Main per Request		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.05	Check Stop Box Access		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.06	Patrolling Mains		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.07	Check/Grease Valves		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.08	Opn. Odor Equipment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.09	Locate and Inspect Valve Boxes		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
874.1	Cut Grass - Right of Way		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
875	Meas and Reg Station Exp.- General		\$ 372,198	\$ 205,366	\$ 94,871	\$ 7,466	\$ 2,473	\$ 33,981	\$ 28,011	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
876	Meas and Reg Station Exp.- Industrial		\$ 213,534	\$ 165,029	\$ 38,469	\$ 2,170	\$ 733	\$ 6,742	\$ 392	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
877	Meas and Reg Station Exp.- City Gate		\$ 27,338	\$ 15,086	\$ 6,988	\$ 548	\$ 182	\$ 2,486	\$ 2,057	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
878	Meter and House Reg. Expense		\$ 5,262	\$ 4,066	\$ 948	\$ 53	\$ 18	\$ 168	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
879	Customer Installation Expense		\$ 132,415	\$ 102,337	\$ 23,855	\$ 1,346	\$ 454	\$ 4,181	\$ 243	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
880	Other Expenses		\$ 1,173,513	\$ 836,422	\$ 219,649	\$ 15,760	\$ 3,595	\$ 68,344	\$ 31,743	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
881	Rents		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total Operations Distribution Labor																							
\$ 2,848,638																							
\$ 1,773,396																							
\$ 533,110																							
\$ 40,598																							
\$ 10,998																							
\$ 190,362																							
\$ 100,176																							
Total Operations Transmission and Distribution Labor																							
\$ 3,132,434																							
\$ 2,094,868																							
\$ 683,136																							
\$ 52,896																							
\$ 10,996																							
\$ 190,362																							
\$ 100,176																							
Maintenance Expense - Distribution																							
885	Maintenance Supr and Engr		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
886	Maintenance Structures		\$ 24,283	\$ 13,400	\$ 6,189	\$ 487	\$ 161	\$ 2,217	\$ 1,827	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
887	Maintenance Mains		\$ 2,849,128	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
LM Pressure																							
Demand																							
Customer																							
H Pressure																							
Demand																							
Customer																							
\$ 331,862																							
\$ 183,137																							
\$ 22,889																							
\$ 84,590																							
\$ 1,939																							
\$ 6,657																							
\$ 16																							
\$ 2,205																							
\$ 1																							
\$ 30,299																							
\$ 5																							
\$ 24,975																							
\$ 0																							

Louisville Gas and Electric
Gas CCOSS
(Salaries and Wages)

Acct No.	Account Description	Alloc	Total	Residential (RGS)				As Available		Firm		Special Contracts (SP)			
				Commercial (CGS)	Industrial (IGS)	Gas Service (AAGS)	Transportatio n Service (FT)	Contracts (FT)	Special Contracts (SP)						
635	Maintenance of General Plant	\$	738,636	\$	521,566	\$	150,724	\$	11,136	\$	1,952	\$	36,023	\$	17,235
	Total Administrative and General Labor	\$	3,147,237	\$	2,200,482	\$	681,965	\$	53,307	\$	7,638	\$	149,143	\$	74,704
	Total Labor Expense	\$	16,313,282	\$	10,680,829	\$	3,244,289	\$	266,315	\$	38,344	\$	720,523	\$	384,981

Louisville Gas and Electric
Gas Customer Cost Analysis

		Residential		
Gross Plant				
380 Services	\$	126,888,285		
381 Meters	\$	17,068,163		
382 Meter Installations	\$	7,250,423		
383 House Regulators	\$	3,818,939		
384 House Regulators Installations	\$	4,084,585		
Total Gross Plant		\$159,128,395		
Depreciation Reserve				
380 Services		42,853,102		
381 Meters		5,763,949		
382 Meter Installations		2,448,481		
383 House Regulators		1,289,863		
384 House Regulators Installations		1,382,749		
Total Depreciation Reserve		\$53,737,944		
Total Net Plant		\$105,390,452		
Operation & Maintenance Expenses				
678 Meter and House Reg. Expense		\$14,623		
679 Customer Installation Expense		\$171,394		
892 Maintenance Services		\$2,020,351		
893 Maintenance Meters and House Reg.		\$0		
902 Meter Reading		\$1,584,441		
903 Customer Records and Collection		\$3,519,377		
Total O&M Expenses		\$7,290,185		
Depreciation Expense				
380 Services		5,386,735		
381 Meters		520,536		
382 Meter Installations		224,650		
383 House Regulators		90,037		
384 House Regulators Installations		85,868		
Total Depreciation Reserve		\$6,307,834		
Revenue Requirement				
Interest	\$2,582,068.07		PCT 47.52%	Cost 5.16%
Equity return	\$5,530,890.92			WGHT Cost 2.45%
Income Tax	\$3,339,824		Common 52.48%	10.00%
Revenue For Return	\$11,452,781.25		Total 100.00%	7.70%
O & M Expenses	\$7,290,185			
Depreciation Expense	\$6,307,834			
Total Customer Revenue Requirement	\$25,050,811.08			
Number of Bills	3,599,880			
Monthly Cost	\$8.86			

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

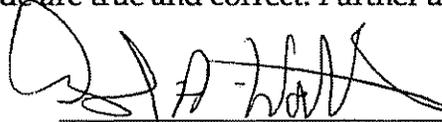
In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY, INC. FOR AN) CASE NO. 2008-00252
ADJUSTMENT OF ITS ELECTRIC AND GAS) C/W
BASE RATES) CASE NO. 2007-00564

AFFIDAVIT OF GLENN A. WATKINS

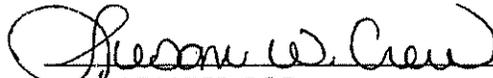
Commonwealth of Virginia)
)
)

Glenn A. Watkins, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony, and the Schedules and Appendix attached thereto constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct. Further affiant saith not.



Glenn A. Watkins

SUBSCRIBED AND SWORN to before me this 28th day of October, 2008.


NOTARY PUBLIC

My Commission Expires: 03/31/10
Registration # 270986