an eben company

## RECEIVED

MAR 282008

Stephanie L. Stumbo
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

March 28, 2008
PUBLIC SERVICE COMMISSION
Louisville Gas and
Electric Company
State Regulation and Rates
220 West Main Street
PO Box 32010
Louisville, Kentucky 40232
www.eon-us.com

Robert M. Convoy
Director -Rates
T 502-627-3324 COMPANY TO FILE DEPRECIATION STUDY CASE NO. 2007-00564

Dear Ms. Stumbo:

Please find enclosed and accept for filing the original and seven (7) copies of the Response of Louisville Gas and Electric Company to the First Data Request of Commission Staff dated February 18, 2008, in the above-referenced matter.

The Verification Page for John J. Spanos will be filed the week of March 31April 4, 2008 on his return to the office.

Should you have any questions concerning the enclosed, please contact me at your convenience.


Robert M. Conroy

-

Enclosures
cc: Parties of Record

## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

# APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY TO FILE DEPRECIATION STUDY <br> ) CASE NO. <br> ) 2007-00564 

# RESPONSE OF <br> LOUISVILLE GAS AND ELECTRIC COMPANY <br> TO THE <br> FIRST DATA REQUEST OF COMMISSION STAFF <br> DATED FEBRUARY 18, 2008 

FILED: MARCH 28, 2008

## VERIFICATION

## STATE OF KENTUCKY )

) SS:

## COUNTY OF JEFFERSON

The undersigned, Robert M. Conroy, being duly sworn, deposes and says that he is the Director, Rates for E.ON U.S. Services Inc., that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.


Subscribed and sworn to before me, a Notary Public in and before said County and State, this $2\left(e^{\text {th }}\right.$ day of March, 2008.
$\frac{\text { Vector B. Haypen(SEAL) }}{\text { Notary Public }}$

My Commission Expires:


# LOUISVILLE GAS AND ELECTRIC COMPANY 

# Response to the First Data Request of Commission Staff Dated February 18, 2008 

Case No. 2007-00564
Question No. 1

## Witness: Robert M. Conroy

Q-1. Refer to the Application, page 3, paragraph 7.
a. In preparing this Application, did LG\&E review pages 10 through 12 and 29 through 35 of the Commission's June 30, 2004 Order in Case No. 200300433 ?
b. Explain why the narrative in paragraph 7 implies the depreciation issue in the last general rate case was resolved by Article III, Section 3.3 of the "Partial Settlement Agreement, Stipulation and Recommendation."

A-1. a. Yes.
b. The Company did not intend to imply that the depreciation issue was resolved by the Partial Settlement and Stipulation. The Company acknowledges that the Partial Settlement and Stipulation was non-unanimous regarding depreciation rates and the Commission's June 30, 2004 Order rejected the depreciation studies submitted in Case No. 2003-00433 and accepted the Company's settlement agreement proposal to file a new depreciation study in its next general rate case or June 30, 2007, whichever occurred earlier. On July 27, 2006, the Commission issued an Order approving the Company's requested time extension to file the new depreciation studies by December 31, 2007 in Case No. 2006-00283. As a result of the Commission rejecting the depreciation studies, the Company's depreciation rates remained the same as those established in Case No. 2001-00141.

# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff <br> Dated February 18, 2008

Case No. 2007-00564
Question No. 2
Witness: John J. Spanos

Q-2. LG\&E's last depreciation study was prepared utilizing the Straight Line Method, the Broad Group Procedure, and the Average Remaining Life Technique. Compare and contrast this approach with the approach utilized in the depreciation study submitted in this proceeding.

A-2. The approach utilized in this study is Straight Line Method, Equal Life Group and the Remaining Life Technique. Therefore, the depreciation procedure is the only difference in method and procedures of the overall manner in which the depreciation rates are calculated.

## LOUISVILLE GAS AND ELECTRIC COMPANY

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 3
Witness: John J. Spanos

Q-3. In its June 30, 2004 Order in Case No. 2004-00433, the Commission rejected LG\&E's depreciation study because of concerns over the inclusion of an inflation adjustment for the removal costs. Explain in detail how the new depreciation study addresses this issue.

A-3. The determination of the net salvage component of the depreciation rate is the same as almost all other utilities in the United States and Canada, including other utilities in Kentucky, Virginia, Tennessee and Indiana. The net salvage component is based on historical indications of the full service value of each asset class. The net salvage component is the last transaction cost of the asset when it is taken out of service, therefore, this cost occurs at a date later than when the asset was originally placed in service.

Consequently, this traditional depreciation study does not make any inflation adjustments for removal costs, just the assumption that the past is a relatively good indicator of the future.

## LOUISVILLE GAS AND ELECTRIC COMPANY

# Response to the First Data Request of Commission Staff Dated February 18, 2008 

Case No. 2007-00564

Question No. 4

Witness: Robert M. Conroy

Q-4. Refer to the Direct Testimony of Robert M. Conroy, page 3. Mr. Conroy states, "Therefore, LG\&E respectfully requests the Commission to defer review of the depreciation rates recommended in the study and to approve revised depreciation rates for accounting and ratemaking purposes concurrent with LG\&E's next change in base rates pursuant to a Commission Order in a base rate proceeding filed by LG\&E."
a. Explain why LG\&E is requesting that the Commission defer the review of the depreciation rates recommended in the study.
b. When does LG\&E propose the review of the depreciation rates recommended in the study be undertaken?

A-4. a. The Company is requesting the Commission to defer the review of the proposed depreciation rates in order to match the change in depreciation rates with a change in base rates and to obtain administrative efficiencies with a single proceeding addressing all impacts of a change in depreciation rates. The Company believes that depreciation rates along with other base rate items that are affected by depreciation rates should be addressed in a single and comprehensive proceeding.
b. LG\&E proposes to review the depreciation rates recommended in the study during the Company's next general rate case proceeding, which the Company has indicated it anticipates filing during 2008.

# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 5

## Witness: John J. Spanos

Q-5. Refer to the Direct Testimony of John J. Spanos ("Spanos Testimony"), page 13.
a. Describe the basic differences between the average service life procedure and the equal life group procedure.
b. Provide the basis for the conclusion that the equal life group procedure reflects a more appropriate matching of capital recovery to asset utilization.

A-5. a. The basic differences between the average service life procedure and the equal life group procedure are the matching principle of recovery to useful life and the advanced calculations for ELG to achieve a more appropriate depreciation rate.
b. I will use a simple two-unit basis for my conclusion as to why the equal life group ("ELG") procedure reflects a more appropriate matching of capital recovery to asset utilization. The example excludes net salvage. Each unit costs $\$ 1,000$, Unit A is in service for 5 years and Unit B is in service for 15 years. Therefore, using the average service life procedure, the service life is 10 years $((5+15) / 2)$, and the accrual rate is $10 \%$. With two units of $\$ 1,000$ each, the annual expense is $\$ 200(\$ 2,000 \times 10 \%)$. At the end of the 5 th year, the accumulated annual provision is $\$ 1,000(\$ 200 \times 5)$ minus $\$ 1,000$ (Unit A retired value) for a total accumulated depreciation of 0 . Thus, Unit B is the only plant surviving after the fifth year and has one-third of its life expectancy gone, but the net book value is still $\$ 1,000$ (plant minus accumulated depreciation). This does not properly match recovery to asset utilization.

I will use the same two-unit example to set forth the equal life group recovery procedure. Unit A has a 5 -year service life; therefore, annual expense is $\$ 200$ ( $\$ 1,000 / 5$ ). Unit B has a 15 -year service life; therefore, annual expense is $\$ 66.67$ ( $\$ 1,000 / 15$ ). At the end of the fifth year, the cumulative annual provision of the two units is $\$ 1,334$ ( $\$ 1,000$ Unit A and $\$ 334$ Unit B). The retirement of Unit A is $\$ 1,000$ so accumulated depreciation is $\$ 334$ ( $\$ 1,334-\$ 1,000$ ). Thus, after 5 years, Unit B has experienced one-third of its
life expectancy and recovery of the $\$ 1,000$ asset is one-third accumulated. Consequently, the Equal Life Group procedure does a better job of matching recovery to asset utilization for both Unit A and Unit B.

# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff <br> Dated February 18, 2008

Case No. 2007-00564

Question No. 6

## Witness: John J. Spanos

Q-6. Refer to the Spanos Testimony, Exhibit JJS-LG\&E, page II-40. Explain how the amortization periods shown on this page were determined. Include any analyses that were based upon LG\&E's historic experience for any of the listed accounts.

A-6. The determination of the amortization periods for the accounts shown on page II40 of Exhibit JJS-LG\&E were not specifically based on the historic data of LG\&E. The use of amortization accounting is different than past depreciation methods of dispersion, as amortization is designed to eliminate the need to track all the small units in each account. The difficulty in tracking these small units skews the historical life results.

Therefore, amortization periods are determined based on the most reasonable estimate of useful life for each asset class. For example, the most reasonable useful life for a computer is 5 years. The amortization periods for LG\&E are ultimately based on a combination of comparable amortization periods of other utilities and the Company's expectation or plans for the useful life of the asset class. This methodology is utilized by almost all utilities across the United States and Canada.

# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564

## Question No. 7

Witness: John J. Spanos

Q-7. Refer to the Spanos Testimony, Exhibit JJS-LG\&E, pages III-4 through III- 12. Prepare an analysis of the depreciation information in Tables 1 through 3 as outlined below. The analysis should be at the same level of detail as shown on Tables 1 through 3. The depreciation information should be organized in the following manner:
a. Column 1-Account.
b. Column 2-Book Depreciation Reserve.
c. Column 3 - Future Accruals.
d. Column 4 - Total Book Depreciation Reserve and Future Accruals, Column 2 plus Column 3.
e. Column 5 - Original Cost.
f. Column 6 - Difference Depreciation vs. Original Cost, Column 4 minus Column 5.
g. Column 7 - Percentage Difference, Column 6 divided by Column 5, carry to two decimal places.

For each account where the Percentage Difference calculated in Column 7 is greater than 10 percent, explain in detail why the results are reasonable and why depreciation rates should be established to generate the proposed levels of Future Accruals.

A-7. The attached schedule sets forth the requested information. With the exception of a few amounts that have rounding differences, the percentage differences in Column 7 is the net salvage percent. The definition of future accruals is the summation of the Original Cost times one minus the net salvage percent minus the book reserve. As an example, the net salvage percent for Account 311 is
negative 10 percent. Because depreciation is recovery of service value, which includes cost of removal and gross salvage, not original cost, then the full service value is Original Cost times (1-(-10)) or 1.10 . If one were to multiply the original cost in Account 311 of Cane Run Unit 5 by the appropriate factor (1.10), then one would get the appropriate amount of recovery through depreciation of $\$ 6,782,510(\$ 6,165,918 \times 1.10)$. Consequently, the appropriate future accrual for Account 311, Cane Run Unit 5 is $\$ 6,782,510$ minus $\$ 4,902,105$ (book reserve) or $\$ 1,880,405$. There is a slight rounding difference from the future accruals shown on page III-4 of Exhibit JJS-LG\&E

In summary, the presentation of the attached schedule does not properly reflect Column 4 due to net salvage, so the explanation of the difference for all accounts is the net salvage component.







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DEPRECIABLE PLANT

## STEAM PRODUCTION PLANT

 TOTAL ACCOUNT 311 - STRUCTURES AND MPROVEMENTS

[^0]CANE RUN LOCOMOTIVE
CANE RUN LOCOMOTIVE - RAILCARS CANE RUN UNIT 1
CANE RUN UNIT 2
CANE RUN UNT
CANE RUN-SO2 UNIT 4
CANE RUN UNIT 5
CANE RUN UNIT 6
CANE RUN-SO2 UNTG MLL CREEK-LOCOMOTIVE RAILCARS
MILL CREEK UNIT 1 MLL CREEK UNO2 UNIT 1 MILL CREEK UNIT 2
MLL CREEK-SO2 UNIT 2
 MLL CREEK UNIT 4 ITIT 4
TRIMBLE COUNTY - UNIT 1
TRIMBLE COUNTY - SO2 UNIT

COMPARISON OF FUTURE ACCRUAL PERCENTAGE AS DETERMINED BY KENTUCKY COMMISSION STAFF

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170,844,566


116,610
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116,619,458



69,894,389
8,065,842


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102,637,709


100,950.177

$4,480,132$
$939,916,258$
 TOTAL ACCOUNT 314 - TURBOGENERATOR UNITS ACCESSORY ELECTRIC EQUIPMENT $\qquad$ CANE RUN UNIT 4 CANE RUN UNIT 5 CANE RUN-SOR RUN UNIT 6 CANE RUN-SO2 UNIT 6 MILL CREEK-SO2 UNIT 1 MILL CREEKUNT CREEK-SO2 UNIT 2 MIL CREEK UNIT 3 MILL CREEK UNIT 4 TRIMBLE COUNTY - UNIT 1
TRIMBLE COUNTY - SO2 UNIT TRIMBLE COUNT - SO2 UNIT MISCELLANEOUS PLANT EQUIPMENT
CANERUN UNIT 1
TOTAL ACCOUNT 315 - ACCESSORY ELECTRIC EQUIPMENT CANE RUN UNIT 3
CANE RUN UNTT 4 CANE RUN-SOL UNIT 4
CANE RUNUNIT 5 CANE RUN-SO2 UNIT 5
CANE RUN UNIT 6 CANE RUN-SO2 UNIT 6 MLL CREEK UNITT MLLLCREEK UN MLL CREEK-SO2 UNIT 4
TRIMBLE COUNTY - UNIT


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\begin{array}{ccr}
58,523 \\
5,560,595 \\
& & \begin{array}{r}
10,563 \\
122,330
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\hline & & 132,893 \\
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[^1]TOTAL ACCOUNT 331 －STRUCTURES AND IMPROVEMENTS
RESERVOIRS，DAMS \＆WATERWAY
OHIO FALLS ．PROJECT 289
TOTAL ACCOUNT 332 －RESERVOIRS，DAMS \＆WATERWAY

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$\begin{array}{r}859,630 \\ \\ 5,368 \\ 80,887 \\ \hline\end{array}$
TOTAL ACCOUNT 333 －WATER WHEELS，TURBINES \＆GENERAI
ACCESSORY ELECTRIC EQUIPMENT
OHIO FALLS－PROJECT 289
TOTAL ACCOUNT 334 －ACCESSORY ELECTRIC EQUIPMENT
MISCELLANEOUS PLANT EQUIPMENT
OHIO FALLS－NON－PROJECT
OHIO FALLS－PROJECT 289
TOTAL ACCOUNT 335 －MISCELLANEOUS PLANT EQUIPMENT
ROADS，RAILROADS \＆BRIDGES
OHIO FALLS－NON－PROJECT
OHIO FALLS－PROJECT 289
TOTAL ACCOUTN 336 －ROADS，RAILROADS \＆BRIDGES
TOTAL HYDROELEGTRIC PRODUCTION PLANT
OTHER PRODUCTION PLANT
STRUCTURES AND IMPROVEMENTS
CANE RUN GT 11
ZORN AND RIVER ROAD GAS TURBINE
PADDY＇S RUN－GENERATOR 12
PADDY＇S RUN－GENERATOR 13
BROWN COMBUSTION TURBINE \＃5
EW BROWN $\# 6$ EW BROWN \＃ 6
EW BROWN \＃
$\begin{array}{r}331.00 \\ 332.00 \\ 333.00 \\ 334.00 \\ 335.00 \\ 336.00 \\ \hline 341.00\end{array}$

|  | ACCOUNT | $\qquad$ | FUTURE ACCRUALS | TOTAL BOOK RESERVE AND FUTURE ACCRUALS | $\begin{gathered} \text { ORIGINAL } \\ \text { COST } \\ \hline(5) \end{gathered}$ | DIFFERENCE <br> DEPRECIATION <br> V. <br> ORIGINAL <br> COST <br> (6)=(4)-(5) | PERCENT DIFFERENCE |
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|  | (1) | (2) | ${ }^{(3)}$ | $(4)=(2)+(3)$ |  |  |  |
| 341.00 | STRUCTURES AND IMPROVEMENTS, cont. | 228,038 | 1,405,400 | 1,633,438 | 1,555,655.08 | 77,782.92 | 5.00 |
|  | TRIMBLE COUNTY \#5 | 223,033 | 1,318,287 | 1,541,320 | 1,467,923.89 | 73,396.11 | 5.00 |
|  | TRIMBLE COUNTY \#7 | 187,091 | 2,000,792 | 2,187,883 | 2,083,698.13 | 104,184.87 | 5.00 |
|  | TRIMBLE COUNTY \#8 | 186,357 | 1,992,946 | 2,179,303 | 2,075,526.50 | 103,776.50 | 5.00 |
|  | TRIMBLE COUNTY \#9 | 191,913 | 2,052,359 | 2.244,272 | 2,137,402.33 | 106,869.67 | 5.00 |
|  | TRIMBLE COUNTY \#10 | 191,499 | 2,047.930 | 2,239,429 | 2,132,789.69 | 106,639.31 | 5.00 |
|  | TOTAL ACCOUNT 341 - STRUCTURES AND IMPROVEMENTS | 1,909,241 | 13,673,394 | 15,582,635 | 14,840,603.91 | 742,031,09 |  |
| 342.00 | FUEL HOLDERS, PRODUCERS AND ACCESSORIES |  |  | 124.817 | 118,873.81 | 5.943.19 | 5.00 |
|  | CANE RUN GT 11 dea | 104,6720 12, | 722 | 13,442 | 12,801.77 | 640.23 | 5.00 |
|  | ZADDY'S RUN-GENERATOR 11 | 9,179 | 520 | 9,699 | 9,237.57 | 461.43 | 5.00 |
|  | PADDY'S RUN-GENERATOR 12 | 12,000 | 807 | 12,807 | 12,197.11 | 609.89 | 5.00 |
|  | PADDY'S RUN-GENERATOR 13 | 410,223 | 1,957,883 | 2,368,106 | 2,255,338,17 | 112.767 .83 | 5.00 |
|  | BROWN COMBUSTION TURBINE \#5 | 150,646 | 713,064 | 863,710 | 822.580.92 | 41,129.08 | 5.00 |
|  | EWBROWN \# 6 | 76,691 | 305,259 | 381,950 | 363,762.04 | 18,187.96 | 5.00 |
|  | EW BROWN \#7 | 21,519 | 85,649 | 107,168 | 102,065.03 | 5,102.97 | 5.00 |
|  | TRIMBLE COUNTY \#5 | 15,022 | 87,875 | 102,897 | 97,996.90 | 4,900.10 | 5.00 |
|  | TRIMBLE COUNTY \#6 | 15,007 | 87,748 | 102.755 | 97,861.58 | 4,893.42 | 5.00 |
|  | TRIMBLE COUNTY CT PIPELINE | 291,168 | 1,807.142 | 2,098,310 | 1,998,390.62 | 99,919.38 | 5.00 |
|  | TRIMBLE COUNTY \#7 | 30,646 | 324,698 | 355,344 | 338,423.07 | 16,920.93 | 5.00 |
|  | TRIMBLE COUNTY \#8 | 30,526 | 323,425 | 353,951 | 337,096.18 | 16,854.82 | 5.00 |
|  | TRIMBLE COUNTY \#9 | 31,436 | 333,068 | 364,504 | $347,146.53$ 346.397 .46 | $17,357.47$ 17 | 5.00 500 |
|  | TRIMBLE COUNTY \#10 | 31.368 | 332,349 | 363,717 | 346,397.46 | 17,319.54 | 5.00 |
|  | TOTAL ACCOUNT 342 - FUEL HOLDERS, PRODUCERS AND ACCI | 1,242,828 | 6,380,349 | 7,623,177 | 7,260,168.76 | 363,008.24 |  |
| 343.00 | PRIME MOVERS |  |  |  |  |  |  |
|  | PADDY'S RUN-GENERATOR 13 | 3,360.331 |  |  |  | $985,048.76$ $715,528.48$ |  |
|  | BROWN COMBUSTION TURBINE \#5 | 2,411,742 | 12,614,360 | 15,026,102 | 14,310.573.52 | 796,854.45 | 5.00 5.00 |
|  | E W Brown \#6 | 2,705,722 | 14,028,210 | 16,733,932 | 15,937,077..55 | 796,854.45 | 5.00 |
|  | EW BROWN \# 7 | 4,531,555 | 19,185,054 | 23,716,609 | 22,587.247.07 | 1,129,361.93 | 5.00 |
|  | TRIMBLE COUNTY \#5 | 1,783,062 | 11,364,859 | 13,147,921 | 12,521,829.34 | 626,091.66 | 5.00 |
|  | TRIMBLE COUNTY \#6 | 1,775,849 | 11,262,441 | 13.038,290 | 12,417.418.76 | 620,871.24 | 5.00 |
|  | TRIMBLE COUNTY \#7 | 1,137,798 | 12,857,352 | 13,995,150 | 13.328,713.85 | 666,436.15 | 5.00 |
|  | TRIMBLE COUNTY \#8 | 1,123,917 | 12,740,019 | 13,863,936 | 13,203,748.83 | 660,187.17 | 5.00 |
|  | TRIMBLE COUNTY \#9 | 1,114,773 | 12,634,324 | 13,749,097 | 13,094,377.92 | 654,719.08 | 5.00 |
|  | TRIMBLE COUNTY \#10 | 1,111,447 | 12.597.037 | 13,708,484 | 13,055,699.41 | 652.784 .59 | 5.00 |
|  | TOTAL ACCOUNT 343 - PRIME MOVERS | 21,056,196 | 136,609,353 | 157,665,549 | 150,157,665.49 | 7,507,883.51 |  |
| 344.00 | GENERATORS |  |  |  |  |  |  |
|  | CANE RUN GT 11 | 2,116,814 | 500,308 | 2,617,122 |  |  |  |
|  | ZORN AND RIVER ROAD GAS TURBINE | 1,745,880 | 173,080 | 1,918,960 | 1,827,580,88 | 91,379.12 | 5.00 5.00 |
|  | PADDY'S RUN-GENERATOR 11 | 1.453,449 | 145,822 | 1,599,271 | 1,523,115.56 | 76.155.44 | 5.00 |
|  | PADDY'S RUN-GENERATOR 12 | 2,866,000 | 275,334 | 3,141,334 | 2,991,745.77 | 149.588.23 | 5.00 |
|  | PADDY'S RUN-GENERATOR 13 | 1,010,223 | 5.142,627 | 6,152,850 | 5,859,857,43 | 292.992.57 | 5.00 |
|  | BROWN COMBUSTION TURBINE \#5 | 555,053 | 2,825,112 | 3,380,165 | 3,219,204.90 | 160,960.10 | 5.00 |
|  | EWBROWN \# 6 | 480,971 | 2,057,923 | 2.538,894 | 2,417,994.54 | 120,899.46 | 5.00 |
|  | EWBROWN\#7 | 481,585 | 2,060,548 | 2,542,133 | 2.421,079.26 | 121,053.74 | 5.00 |
|  | TRIMBLE COUNTY \#5 | 222,522 | 1,393,738 | 1,616,260 | 1,539,295.24 | 76,964.76 | 5.00 |
|  | TRIMBLE COUNTY \#6 | 222,292 | 1,391,734 | 1,614,026 | 1,537,167.60 | 76,858.40 | 5.00 |


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| Vs. |
| ORIGINAL |
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| $(66=(4)-(5)$ |
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| 86.341 .12 |
| $85,864.28$ |
| $86,40.63$ |
| $86,133.71$ |
| $1,636,216.14$ |


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|  | ACCOUNT |
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|  | (1) |
|  | distribution plant |
| 361.00 | StRUCTURES AND Improvments |
| 362.00 | STATION EQUIPMENT |
| 364.00 | POLES, TOWERS, AND FIXTURES |
| 365.00 | OVERHEAD CONDUCTORS AND DEVICES |
| 366.00 | UNDERGOUND CONDUIT |
| 367.00 | UNDERGROUND CONDUCTORS AND DEVICES |
| 368.00 | LINE TRANSFORMERS |
| 369.10 | SERVICES - UNDERGROUND |
| 369.20 | SERVICES - OVERHEAD |
| 370.00 | METERS |
| 373.10 | StREET LIGHting And signal systems - OVERHEAD |
| 373.20 | STREET LIGHTING AND SIGNAL SYSTEMS - UNDERGROUND |
| 373.40 | STREET LIGHTING AND SIGNAL SYSTEMS - TRANSFORMERS |
|  | TOTAL DISTRIBUTION PLANT |
|  | general plant |
| 392.20 | TRANSPORTATION EQUIPMENT - TRAILERS |
| 394.00 | TOOLS, SHOP AND GARAGE EQUIPMENT |
| 395.00 | LABORATORY EQUIPMENT |
| 396.20 | POWER OPERATED EQUIPMENT - OTHER |
|  | total general plant |
|  | total depreciable plant |

COMPARISON OF FUTURE ACCRUAL PERCENT AS DETERMINED BY KENTUCK COMMISSION STAFF

 <br> \section*{\section*{TRANSMISSION PLANT <br> \section*{\section*{TRANSMISSION PLANT <br> <br> RIGHTS OF WAY
MAINS <br> <br> RIGHTS OF WAY
MAINS <br> <br> TOTAL TRANSMISSION PLANT <br> <br> TOTAL TRANSMISSION PLANT <br> <br> DISTRIBUTION PLANT} <br> <br> DISTRIBUTION PLANT}






589,543,760

$441,472,374$
$\frac{10,802}{148,071,386}$ TOTAL DISTRIBUTI
TOTAL DISTRIBUTION PLANT


COMPARISON OF FUTURE ACCRUAL PERCENT AS DETERMINED BY KENTUCK COMMISSION STAFF

|  |  |  |
| :---: | :---: | :---: |



|  |  | \% |
| :---: | :---: | :---: |


| воок DEPRECIATION RESERVE | FUTURE ACCRUALS |
| :---: | :---: |
| (2) | (3) |
| 131,916 | 319,157 |
| 1,139,401 | 2,335,377 |
| 258,930 | 180,583 |
| 32,879 | 17,822 |
| 1,563,126 | 2,852,939 |
| 192,905,913 | 481,076,254 |




# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 8
Witness: John J. Spanos

Q-8. Refer to the Spanos Testimony, Exhibit JJS-LG\&E, pages III-6 through III- 8. LG\&E jointly owns 10 combustion turbines ("CTs") with Kentucky Utilities Company ("KU"). The CTs are Paddy's Run - Generator 13, E. W. Brown CTs 5 through 7, and Trimble County CTs 5 through 10. A comparison of the depreciation information on pages III-6 through III-8 with the corresponding pages in the KU depreciation study reveals that the survivor curves, accrual rates, and composite remaining lives are not the same for the jointly owned assets. Explain in detail why it is reasonable for LG\&E and KU to have different depreciation rates for the same jointly owned assets.

A-8. There are alternate ways to determine an appropriate interim survivor curve for an asset class; however, it is critical to determine which assets are most homogenous, both as a result of the past and the future. Until recently, the production units for KU were managed and operated differently than the LG\&E units. Therefore, in Mr. Spanos' experience, the most homogeneous historical asset classes were used to determine life characteristics based at the individual predecessor company level, not the cumulative company level. This is important because there were some operational differences between the two predecessor companies with regard to maintenance and capitalization. Therefore, the past life characteristics of all the KU units were different than the past life characteristics of all the LG\&E units, and the total units for each Company were different. The other issue that came into play that prevented the studying of life characteristics of the common units among KU and LG\&E was the lack of unit identification of all transactions since the original year of installation. In summary, it was determined the most appropriate and most homogeneous comparison by account would be of the units by predecessor company. The probable retirement date or lifespan is identical for common units between the two components.

The net salvage percents are basically the same for all units among the two Companies. However, it is critical to point out that the depreciation rate and composite remaining life are based on four parameters. First is the interim survivor curve and probable retirement date. Second is the net salvage component. Third is the depreciation procedure and reserve to plant ratio. Fourth
is the age of the surviving age distribution at the time of calculation. If any one of these four factors is different, then the depreciation rate and composite remaining life will not be equal. Because history is clear that the two Companies did not have identical recovery patterns since the initial year of installation, the reserve to plant ratio will only be the same at retirement when everything is fully recovered.

A remaining life rate is based on recovering future accruals (original cost times net salvage minus book reserve) over the remaining life of an asset class. The actual overall remaining life is the date of the study minus the probable retirement date. The unit remaining life on the summary schedule is the numerical computation of the vintage future accruals divided by the summation of the vintage annual accruals with all the parameters included.

# LOUISVILLE GAS AND ELECTRIC COMPANY 

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 9
Witness: John J. Spanos

Q-9. Refer to the Spanos Testimony, Exhibit JJS-LG\&E, pages III-8 through III-10. For each of the accounts listed below, explain in detail why the Future Accrual is larger than the Original Cost. In addition, explain why the result is reasonable and why the proposed level of Future Accrual should be reflected in the approved depreciation rates.
a. Account No. 355.00 - Poles and Fixtures.
b. Account No. 364.00 - Poles, Towers, and Fixtures.
c. Account No. 265.00 - Overhead Conductors and Devices.
d. Account No. 369.20 - Services - Overhead.
e. Account No. 352.50 - Well Equipment.
f. Account No. 380.00 - Services.

A-9. As discussed in response to Staff-7, the future accruals are not only determined by Original Cost minus book reserve. The appropriate calculation for future accruals is the summation of the original cost multiplied by one minus the net salvage percent minus the book reserve. Therefore, for electric accounts 355, 364, and 365 , and gas accounts $369.20,352.50$ and 380 , the full recovery of all assets currently in service with a negative net salvage percent could have future accruals larger than original cost. Considering the appropriate recovery level, the resulting future accruals are reasonable for these Accounts.

## LOUISVILLE GAS AND ELECTRIC COMPANY

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 10
Witness: John J. Spanos

Q-10. Refer to the Spanos Testimony, Exhibit JJS-LG\&E. For each of the "Original and Smooth Survivor Curves" listed below, explain why the selected Iowa Curve is the best fit given the information plotted. Also indicate whether there were other Iowa Curves that reflected a fit similar to the plotted information.
a. Page III-48, Account No. 341 - Structures and Improvements.
b. Page III-66, Account No. 350 - Land and Land Rights.
c. Page III-70, Account No. 352 - Structures and Improvements.
d. Page III-76, Account No. 354 - Towers and Fixtures.
e. Page III-82, Account No. 356 - Overhead Conductors and Devices.
f. Page III-152, Account No. 351.30 - Measuring and Regulating Station Structures.
g. Page III-168, Account No. 352.50 - Well Equipment.
h. Page III-261, Account No. 385 - Measuring and regulating Station Equipment.
i. Page III-282, Account No. 390.30 - Structures and Improvements - Stores.

A-10. The statistical analyses for the accounts listed above in all parts, except $g$., were not fit statistically due to limited data to analyze. Therefore, other Iowa curves were considered but not fit or plotted. In part g , there were other Iowa Curves fitted, but not considered reasonable. The curve fitting analysis was included in response to AG-1.
a-f. The life analysis performed by Gannett Fleming is not solely a statistical analysis, so the selected Iowa Curve is a combination of historical data,
informed judgment, estimates of other utilities and expectations of management. As set forth on pages III-48, III-66, III-70, III-76, III-82 and III152 of Exhibit JJS-LGE, the statistical indications for these accounts were inconclusive. Based on the nature of the assets in these accounts and the relationship these assets have with other accounts within the function, it was determined that the curve plotted on each page was most appropriate.
g. The statistical analysis on page III-168, Account 352.50 - Well Equipment, was a strong indicator of the life characteristics, but statistical data was not the only indicator. The first 30 age intervals are quite close statistically to the $50-$ R2.5 smooth curve. However, it was not possible to statistically match a smooth curve to the remaining 32 age intervals, as well as the first 30 age intervals, so judgment was utilized to best fit the 31-62 age intervals. A 50year average life and 88 -year maximum life is very realistic for well equipment and comparable to others within the industry. The 50-R2.5 survivor curve is a reasonable estimate for this asset class.
$\mathrm{h} \& \mathrm{i}$. The life analysis performed is not solely a statistical analysis, so the selected Iowa Curve is a combination of historical data, informed judgment, estimates of other utilities and expectations of management. As set forth on pages III261 and III-282 of Exhibit JJS-LG\&E, the statistical indications for these accounts were inconclusive. Based on the nature of the assets in these accounts and the relationship these assets have with the other functional accounts, it was determined that the 40-S2.5 survivor curve for Account 385 and the $45-\mathrm{R} 3$ survivor curve for Account 390.3 was most appropriate.

## LOUISVILLE GAS AND ELECTRIC COMPANY

## Response to the First Data Request of Commission Staff Dated February 18, 2008

Case No. 2007-00564
Question No. 11
Witness: John J. Spanos

Q-11. Refer to the Spanos Testimony, Exhibit JJS-LG\&E. For each of the accounts listed below, explain how the net salvage percentage shown for the account on pages III-4 through III-12 is supported by the information presented on the referenced pages from the "Summary of Book Salvage." If depreciation studies for other utilities were utilized, identify the utility, indicate when the study was prepared, and explain why it was reasonable to use information from that study.
a. Account No. 331 - Structures and Improvements, pages III-310 and III-311.
b. Account No. 332 - Reservoirs, Dams and Waterway, page III-312.
c. Account No. 333 - Water Wheels, Turbines, and Generators, page III-313.
d. Account No. 334 - Accessory Electric Equipment, pages III-314 and III-315.
e. Account No. 335 - Miscellaneous Plant Equipment, pages III-316 and III-317.
f. Account No. 343 - Prime Movers, pages III-321 and III-322.
g. Account No. 362 - Station Equipment, pages III-341 and III-342.
h. Account No. 364 - Poles, Towers, and Fixtures, pages III-343 and III-344.
i. Account No. 367 - Underground Conductors and Devices, pages III-349 and III-350.
j. Account No. 351.20 - Compressor Station Structures, pages III-369 and III370.
k. Account No. 367 - Mains, pages III-387 and III-388.

1. Account No. 375.20 - Structures and Improvements - Other, pages III-389 and III-390.
m. Account No. 378 - Measuring and Regulating Station Equipment - General, pages III-393 and III-394.
n. Account No. 396.20 - Power Operated Equipment - Other, pages III-410 and III-411.
o. Account No. 390.30 - Structures and Improvements - Stores, page III-417.
p. Account No. 390.40 - Structures and Improvements - Shops, pages III-418 and III-419.
q. Account No. 392.20 - Transportation Equipment - Trailers, pages III-422 and III-423.

A-11. It is Mr. Spanos' opinion that estimates of others is critical in understanding reasonable life and salvage estimates to be used in every study. Studies cannot be based solely on statistics, especially when data is limited. Therefore, Mr. Spanos utilized his experience and informed judgment of conducting hundreds of depreciation studies over his career to determine industry information is reasonable to use when conducting a study. The industry statistics are set forth in response to AG-8.
a-e.As stated on pages II-29 through II-33, the statistical data set forth on pages III-310 through III-317 was not a major indicator of the net salvage estimates for Accounts 331 through 335. The historical data was not conclusive for statistical indications. The most important factors were informed judgment based on estimates of others and Company expectations in the future.
f. As stated on pages II-29 through II-33, the statistical data set forth on pages III-321 and III-322 was not a major indicator of the net salvage estimate of Account 343. The overall historical data shows negative $1 \%$, however, there was limited activity until 2006, thus, informed judgment based on estimates of others and Company expectations in the future were critical.
g. The statistical data set forth on pages III-341 and III-342, and the estimates of others were the strong indicators of the net salvage percent for Account 362. The overall period, 1972-2006 net salvage indication is negative $6 \%$; however, the trend toward the most recent five years is negative $35 \%$. It has been determined the most recent five-year period is more indicative of future net salvage percents, however, negative $35 \%$ is above the industry averages, therefore, negative $15 \%$ is estimated until additional data continues to support the most recent statistics.
h. As stated on pages II-29 through II-33, the statistical data set forth on pages III-343 through III-344 was not a major indicator of future net salvage
estimates for Account 364. The overall period, 1972-2006, sets forth statistical net salvage indications of negative $120 \%$ and the most recent fiveyear period indicates negative $743 \%$. These indications are unrealistic for future net salvage percents. Therefore, industry averages were incorporated to establish the best estimate of negative $60 \%$.
i. The statistical indications on pages III-349 and III-350 were utilized, but not the only indicator as the overall period, 1972-2006, calculates at positive 4\% and the most recent five-year period calculates at negative $69 \%$. The trend to zero gross salvage is expected to continue in the future. The recent trends for cost of removal have been very high, however, it is not expected to continue in years to come, therefore, industry averages were considered in extrapolating the most appropriate future net salvage of negative $15 \%$.
j. The statistical data on pages III-369 and III-370 were good indicators for the net salvage percent for Account 351.20, however, there was limited data so industry averages were also strongly considered when determining the final estimate of negative $5 \%$.
k\&l.The statistical analysis for Account 367, and Account 375.20 were not considered conclusive to make a determination of future net salvage estimates for these accounts. The most recent years had limited to no net salvage or retirement activity, therefore, informed judgment was utilized based on estimates of others. A negative $10 \%$ was recommended for Account 367, and negative 5\% for Account 375.20.
m . The statistical analysis for Account 378 was a strong indicator for the negative $10 \%$ net salvage utilized for future expectations. The overall period, 19722006, indicates negative $6 \%$ and the most recent five-year period indicates negative $9 \%$. These statistical indications coupled with the industry averages established the negative $10 \%$ estimate.
$\mathrm{n}-\mathrm{q}$. The statistical analysis for gas plant account 396.20 , and common plant accounts $390.3,390.4$ and 392.2, were too limited to base estimates solely on the statistics. Therefore, informed judgment of estimates of other utilities was used to establish the most appropriate estimate for each account.


[^0]:    BOLLER PLANT EQUIPMENT
    312.00

[^1]:    HYDROELECTRIC PRODUCTION PLANT
    331.00 STRUCTURES AND IMPROVEMENTS

