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March 9, 2005

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MAR 09 2005

PUBLIC SERVICE
COMMISSION

Ms. Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

RE: The Application of Louisville Gas and Electric Company for Approval of its 2004 Compliance Plan for Recovery by Environmental Surcharge - Case No. 2004-00421

Dear Ms. O'Donnell:

Enclosed please find an original and eight (8) copies of Louisville Gas and Electric Company's ("LG&E") responses to the Second Data Requests of Commission Staff dated February 23, 2005, in the above-referenced docket.

Should you have any questions concerning the enclosed, please do not hesitate to contact me.

Sincerely,

Kent W. Blake

cc: Hon. Elizabeth E. Blackford
Hon. Michael L. Kurtz

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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MAR 09 2005

PUBLIC SERVICE
COMMISSION

In the Matter of:

**THE APPLICATION OF LOUISVILLE GAS AND
ELECTRIC COMPANY FOR APPROVAL OF ITS
2004 COMPLIANCE PLAN FOR RECOVERY
BY ENVIRONMENTAL SURCHARGE**

)
) **CASE NO. 2004-00421**
(
)

**RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY
TO
SECOND DATA REQUESTS OF COMMISSION STAFF
DATED FEBRUARY 23, 2005**

FILED: MARCH 9, 2005

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 1

Responding Witnesses: Valerie L. Scott / Kent W. Blake

- Q-1. Refer to the response to the First Data Request of Commission Staff dated January 26, 2005 ("Staff's First Request"), Item 1. For LG&E's electric operations only, provide a calculation of the overall rate of return using the capital structure as of December 31, 2004, the weighted cost of debt and preferred stock as of December 31, 2004, and the effect of the new income tax law for 2005 as stated in the response to the First Data Request of the Kentucky Industrial Utility Customers, Inc., Item 22. Provide all supporting calculations, assumptions, and workpapers.
- A-1. Please see attached tables.

Louisville Gas and Electric Company
 Weighted Cost of Capital

1	2	3	4	5
	Percent of Total	Annual Cost Rate	Weighted Cost of Capital	Weighted Cost of Capital with Tax Gross-Up
1 Long-Term Debt	41.34%	3.92%	1.62%	1.62%
2 Short-Term Debt	5.44%	1.90%	0.10%	0.10%
3 Preferred Stock	3.54%	3.30%	0.12%	0.20%
4 Common Equity	49.67%	11.00%	5.46%	9.01%
5 Total	100.00%		7.30%	10.93%

4. Column 2 x Column 3.
5. Based on a composite tax rate of 39.3991%. Resulting total can also be computed using the formula established in Case No. 2000-386 of $(ROR + (ROR - DR) \times (TR / 1 - TR))$ where:
 - ROR = Return on Rate Base
 - DR = Debt Cost Rate
 - TR = Composite Tax Rate

LOUISVILLE GAS AND ELECTRIC COMPANY
ANALYSIS OF THE EMBEDDED COST OF CAPITAL AT
December 31, 2004

LONG-TERM DEBT										
	Due	Rate	Principal	Interest	Annualized Cost			Total	Embedded Cost	
					Amortized Debt Issuance Expense	Premium	Amortized Loss-Required Debt			
Pollution Control Bonds - SECURED:										
Series S	09/01/17	1.9283% *	31,000,000	597,773	12,552	-	11,472	621,797	2 010	
Series T	09/01/17	1.8141% *	60,000,000	1,088,460	16,608	-	102,972	1,208,040	2 010	
Series U	08/15/13	1.7493% *	35,200,000	615,754	11,700	-	21,912	649,366	1 840	
Series X	04/15/23	5.9000%	40,000,000	2,360,000	32,904	-	-	2,392,904	5 980	
Series Y - 2000 A JC	05/01/27	1.6790% *	25,000,000	419,750	23,808	-	81,024	524,582	2 100	
Series Z - 2000 A TC	08/01/30	1.8500% *	83,335,000	1,541,698	38,280	-	143,700	1,723,678	2 070	
Series AA - 2001 A JC	09/01/27	1.6150% *	10,104,000	163,180	9,876	-	77,424	183,016	1 810	
Series BB - 2001 A JC	09/01/26	1.8800% *	22,500,000	423,000	10,740	-	65,400	510,300	2 270	
Series CC - 2001 A TC	09/01/26	1.8800% *	27,500,000	517,000	10,944	-	49,044	593,140	2 160	
Series DD - 2001 B JC	11/01/27	1.9100% *	35,000,000	668,500	10,944	-	48,864	728,488	2 080	
Series EE - 2001 B TC	11/01/27	1.8402% *	35,000,000	644,056	10,944	-	55,812	703,864	2 010	
Series FF - 2002 A TC	10/01/32	1.8000% *	41,665,000	749,970	36,840	-	190,308	842,622	2 020	
Series GG - 2003 A JC	10/01/33	1.7400%	128,000,000	2,227,200	112,872	-	-	2,530,380	1 980	
					-	-	213,432	213,432	-	
Called Bonds										
Interest Rate Swaps:										
Morgan Stanley Capital Services	02/03/05	1		445,092	-	-	-	445,092		
JP Morgan Chase Bank	11/01/20	1		3,170,214	-	-	-	3,170,214		
Morgan Stanley Capital Services	10/01/33	1		724,986	-	-	-	724,986		
Bank of America	10/01/33	1		720,762	-	-	-	720,762		
Wachovia	10/01/33	1		738,362	-	-	-	738,362		
	10/01/33	1		605,082	-	-	-	605,082		
Notes Payable to Fidelia Corp	04/30/13	4.55%	100,000,000	4,550,000	-	-	-	4,550,000	4 550	
Notes Payable to Fidelia Corp	08/15/13	5.31%	100,000,000	5,310,000	-	-	-	5,310,000	5 310	
Notes Payable to Fidelia Corp.	01/16/12	4.33%	25,000,000	1,082,500	-	-	-	1,082,500	4 330	
Mandatorily Redeemable Preferred Stock: \$5.875 Series	07/15/08	5.8750%	22,500,000	1,395,313	56,844	-	-	1,452,157	6 454	
Total				821,804,000	30,758,650	404,748	-	1,061,364	32,224,762	3.921%

PREFERRED STOCK								
	Rate	Principal	Expense	Annualized Cost			Dividends	Embedded Cost
				Premium/Discount	Gain	Adjusted Principal		
5% Series	5.0000%	21,507,175	-	-	5,699	21,512,874	1,075,359	4 999
Auction Rate	2.5000%	50,000,000	(1,088,280)	-	-	48,911,720	1,250,000	2 556
Total		71,507,175	(1,088,280)	-	5,699	70,424,594	2,325,359	3.302%

SHORT TERM DEBT									
	Maturity	Rate	Principal	Interest	Annualized Cost			Total	Embedded Cost
					Expense	Premium	Loss		
Notes Payable to Associated Company	NA	2.220% *	58,220,000	1,292,484	-	-	-	1,292,484	2 220
Notes Payable to Fidelia Corp	01/06/05	1.53%	50,000,000	765,000	-	-	-	765,000	1 530
Commercial Paper									
Total				108,220,000	2,057,484	-	-	2,057,484	1.901%

* Composite rate at end of current month.

1 Additional Interest due to Swap Agreements:

Underlying Debt Being Hedged	Notional Amount	Expiration of Swap Agreement	Fixed LG&E Swap Position	Variable Counterparty Swap Position
Series U - PCB	17,000,000	02/03/05	To Pay: 4 309%	BMA Index
Series Z - PCB	83,335,000	11/01/20	To Pay: 5 495%	BMA Index
Series GG - PCB	32,000,000	10/01/33	To Pay: 3 657%	68% of 1 mo LIBOR
Series GG - PCB	32,000,000	10/01/33	To Pay: 3 645%	68% of 1 mo LIBOR
Series GG - PCB	32,000,000	10/01/33	To Pay: 3 695%	68% of 1 mo LIBOR
Series GG - PCB	32,000,000	10/01/33	To Pay: 3 648%	68% of 1 mo LIBOR
Series GG - PCB	228,335,000			

2 Call premium and debt expense is being amortized over the remaining life of called FMB Series due 3/1/05 and 10/1/09.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 2

Responding Witness: Sharon L. Dodson

- Q-2. Refer to the response to the Staff's First Request, Item 4. Provide the status of the permit application submitted to the Metropolitan Sewer District on January 20, 2005. If the permit approval is received before the date of the public hearing, provide a copy of the approval.
- A-2. A meeting was held between LG&E, MSD and USCOE representatives on February 14, 2005 to discuss various issues with the permit application. LG&E believes that it has satisfactorily answered the questions of MSD and USCOE. LG&E anticipates final review and approval of the permit in the near future and will provide a copy of the permit to the Commission Staff upon receipt.



LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 3

Responding Witness: Sharon L. Dodson

- Q-3. Refer to the response to the Staff's First Request, Item 5. Provide the status of the permit application submitted to the Kentucky Division of Waste Management on December 22, 2004. If the permit approval is received before the date of the public hearing, provide a copy of the approval.
- A-3. Kentucky Division of Waste Management on February 3, 2005 notified LG&E that the Company's application was administratively complete. A copy of the permit will be provided to the Commission Staff upon receipt.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 4

Responding Witness: Kent W. Blake

- Q-4. Refer to the response to the Staff's First Request, Item 6.
- a. Would LG&E agree that in previous decisions the Commission has not allowed a return on a deferred debit? Explain the response.
 - b. Explain the circumstances that support LG&E's request to include a return on any unamortized balance related to the ash transfer expense.
- A-4. a. Yes, but the Commission has also allowed a return on a deferred debit in previous decisions. *See In the Matter of: Application of Kentucky-American Water Company to Increase Its Rates*, Case No. 2000-120, Order dated November 27, 2000, pp. 13-14; *In the Matter of: Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on December 27, 1990*, Case No. 90-321, Order dated May 30, 1991, pp. 12-13; *In the Matter of: Notice of Adjustment of the Rates of Kentucky-American Water Company*, Case No. 10069, Order dated June 3, 1988, p. 3 & Appx. B, p. 6; *In the Matter of: Notice of Adjustment of the Rates of Kentucky-American Water Company*, Case No. 92-452, Order dated November 19, 1993, pp. 21-22; *In the Matter of: Application of Kentucky-American Water Company to Increase Its Rates*, Case No. 95-554, Order dated September 29, 1997, pp. 2-3; *In the Matter of: Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on January 28, 1990*, Case No. 89-348, Order dated June 28, 1990, p. 9. *In the Matter of: Application of Kentucky-American Water Company to Increase Its Rates*, Case No. 97-034, Order dated September 30, 1997, p. 21; *In the Matter of: Adjustment of the Rates of Kentucky-American Water Company*, Case No. 2000-120, Order dated December 12, 2000, Appx. A, Tbl.1; *In the Matter of: Notice of Adjustment of the Rates of Kentucky-American Water Company Effective February 2, 1989*, Case No. 10481, Order dated August 22, 1989, p. 9.18, 25-27; *In the Matter of: Adjustment of the Rates of Kentucky-American Water Company*, Case No. 2004-00103, Order dated February 28, 2005, pp. 21-26; *In the Matter of: Application of Kentucky-American Water Company to Increase Its Rates*, Case No. 95-554, Order dated September 11, 1996, pp. 12-15, 25.
- b. LG&E believes that the expense should be recovered in the same periods as it is incurred. In Case No. 2002-147, LG&E also proposed to include a one-

time, non-recurring maintenance expense of approximately \$6 million for the removal of ash from the existing pond at the Mill Creek Generation Station.

LG&E's position, as stated in its post-hearing brief in Case No. 2002-147, was an alternative to then KIUC's unreasonable recommendation.

Including a return on any unamortized balance related to the ash transfer expense is reasonable because it ensures that LG&E would recover the carrying cost associated with the deferral. The dredging of the ash pond will restore and maintain the useful life of the ash pond for the benefit of customers. Since customers benefit from the four-year amortization of the ash pond expense, it is appropriate that customers bear the burden of the four-year amortization period so that the burden and benefit of the four-year period are equitably matched.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 5

Responding Witnesses: Kent W. Blake / John P. Malloy

- Q-5. Refer to the response to the Staff's First Request, Item 8. Is it LG&E's position that the guarantee of cost recovery is determining the timing of the required refurbishments instead of the condition of the plant? Explain the response.
- A-5. No. but approval of this project in LG&E's ECR compliance plan will allow recovery of the project's costs in the event that refurbishments are necessary sooner than planned.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 6

Responding Witness: John P. Malloy

- Q-6. Refer to the response to the Staff's First Request, Item 10. Explain how LG&E determined that Project 16 is the most cost-effective alternative if it is still evaluating the alternatives.
- A-6. The testimony of Mr. Malloy referenced by the Staff's First Request, Item 10 and LG&E's response to the same request state that the projected costs associated with Project 16 are significantly less than the market cost of SO₂ allowances; therefore, it is a cost effective means for complying with environmental regulations. The Company's reference to the continual evaluation of alternatives was in reference to the other units on the LG&E system and not to the alternatives at Trimble County.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 7

Responding Witnesses: Kent W. Blake / John P. Malloy

Q-7. Refer to the response to the Staff's First Request, Items 11(a) and 11(b). In Case No. 1997-00300, the Commission approved the merger of the holding companies for LG&E and Kentucky Utilities Company ("KU"). In that case, LG&E and KU requested approval of their Corporate Policies and Guidelines for Intercompany Transactions ("Guidelines") that would govern their merged activities. The Guidelines provided that transfers or sales of assets between LG&E and KU would be priced at cost. It was noted in the Guidelines that through this policy, the utilities would receive the full benefit from intercompany transfers or sales. The Commission ordered LG&E and KU to comply with the Guidelines after the merger. In subsequent cases, LG&E has committed to continue following the Guidelines to the extent those conditions were not superseded by KRS 278.2201 through 278.2219 or the jurisdiction of the Securities and Exchange Commission or the Federal Energy Regulatory Commission.

- a. Would LG&E agree that the Guidelines' requirements concerning the transfer or sale of assets between LG&E and KU apply to emission allowances? Explain the response.
- b. In the response to Item 11(b), LG&E states, "transferring allowances between companies as needed, priced at market, results in the lowest net present value to all customers." Explain the basis for this statement.

A-7. a. The Company does not believe the referenced sections of its Corporate Policies and Guidelines for Intercompany Transactions ("Guidelines") prevented it from proposing transfers of emission allowances between LG&E and KU be made at market prices nor do the Guidelines restrict the Commission from approving the proposed transfer of emission allowances in this proceeding prior to such transfers occurring. The primary purpose of the Guidelines is to ensure that there is no subsidization of one LG&E Energy subsidiary to the detriment of the other, particularly if that involves a utility subsidiary subsidizing a non-utility subsidiary.

The reference in these Guidelines to asset transfers clearly applies to capital assets included in rate base. For such assets, the utility is allowed the opportunity to earn a fair, just and reasonable return on the cost of such assets. The policy of transferring assets at cost between LG&E and KU in the

Guidelines reflects that as between two full rate-of-return regulated utilities, the cost of the asset essentially represents the fair market price of the asset because each Company earns a regulated return (i.e. regulation's substitute for the fair market rate of return) on its rate base assets. Thus, transferring the assets at cost is the functional equivalent of transferring the assets at their fair market value as between the two utility companies.

The application of the Guidelines to emission allowances, however, is less clear because of the nature of emission allowances. Emission allowance transfers are more akin to operating expenses when they are purchased or transferred on an as needed basis. In the current case, KU has a need for emission allowances which it can either purchase from the market at prevailing rates or purchase from LG&E. If such purchases from LG&E are made at prevailing market rates, KU should be indifferent as to the source. However, LG&E currently holds allowances which allows it to meet environmental requirements at a cost well below current market rates. If LG&E was to sell allowances to KU at a price below market, its customers would be adversely impacted as LG&E would be transferring this emission right to KU without being fairly compensated.

Please note that to the extent one utility maintains inventory balances resulting from the transfer of allowances by the other utility at market, the receiving utility has the opportunity to increase its return through the ECR mechanism. Of course, that utility would be in the same position if it purchased those allowances from the market rather than from the other utility. The Company receiving the transferred allowances could lower its return by either making transfers only on an as needed basis without maintaining an inventory or by removing the "step up to market" when calculating its inventory value for purposes of the ECR. The former alternative would not be a prudent operating decision. The latter carries the adverse incentive for the utility to acquire such allowances from the market which would result in a higher revenue requirement for the customers of the combined utilities. Moreover, the latter alternative also results in a lack of symmetry in accounting between the two utilities if customers of the transferring utility receive an ECR credit based on market prices.

The Company requests that the Commission make a determination as to whether the Guidelines apply to the proposed transfer of emission allowances between LG&E and KU at market prices, and, if the Commission determines the Guidelines apply, grant the Companies a deviation from the Guidelines to permit the transfer of the allowances as proposed.

- b. See the attached table for the projected present value differences on both KU and LG&E's systems transferring SO₂ allowances at market prices or at cost.

Net Present Value Allowance Expense

Present Value Rate= 7.14%

Projections for Kentucky Utilities Company

	<u>Transfer @ Market</u>		<u>Transfer @ Cost</u>	
	<u>Emissions</u>	<u>ECR Credit</u>	<u>Emissions</u>	<u>ECR Credit</u>
2004	\$5,107,773	\$0	\$5,107,773	\$0
2005	\$10,743,610	\$0	\$2,475,982	\$0
2006	\$22,111,052	\$0	\$6,120,542	\$0
2007	\$19,329,790	\$0	\$12,084,626	\$0
2008	\$9,294,418	\$0	\$5,637,444	\$0
2009	\$688,252	\$16,931	\$475,386	\$291
2010	\$163,430	\$8,314,807	\$112,884	\$41,633
Present Value=	\$57,763,956	\$5,509,203	\$27,266,452	\$27,731
Net Present Value=	\$52,254,753		\$27,238,721	

Projections for Louisville Gas and Electric Company

	<u>Transfer @ Market</u>		<u>Transfer @ Cost</u>	
	<u>Emissions</u>	<u>ECR Credit</u>	<u>Emissions</u>	<u>ECR Credit</u>
2004	\$12,936	\$0	\$12,936	\$0
2005	\$7,174	\$11,739,602	\$7,174	\$3,877
2006	\$3,041	\$18,971,855	\$3,041	\$2,587
2007	\$309	\$2,841,358	\$309	\$38
2008	\$31	\$1,908,168	\$31	\$3
2009	\$12,264	\$0	\$215	\$0
2010	\$7,522,921	\$0	\$1,584,102	\$0
Present Value=	\$5,004,908	\$31,243,181	\$1,070,012	\$5,905
Net Present Value=	(\$26,238,273)		\$1,064,107	

Projections for KU + LGE

KU+LGE NPV with Allowances Transferred @ Cost =	\$28,302,828
KU+LGE NPV with Allowances Transferred @ Market =	\$26,016,480
Savings with SO₂ Allowances Being Priced at Market =	\$2,286,348

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 8

Responding Witnesses: Kent W. Blake / John P. Malloy

- Q-8. Refer to the response to the Staff's First Request, Item 11(e).
- a. Does LG&E agree that any inventory of SO₂ emission allowances and the expense of any allowances associated with gas-fired generation cannot be recovered through the environmental surcharge? Explain the response.
 - b. Do the SO₂ emission allowance bank projections shown in the response to Item 11(e) include allowances allocated to combustion turbines? If yes, indicate the amount included for each year shown.
 - c. Explain in detail how LG&E determined the "Desired Bank Level" as shown in the response to Item 11(e).
- A-8. a. LG&E does not currently recover any costs associated with SO₂ emission allowances; nor does LG&E currently earn a return on its emission allowance inventory. Nonetheless, LG&E agrees that the ECR recovery is limited to the current recovery of LG&E's cost of complying with the Federal Clean Air Act as amended and those federal, state or local environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal in accordance with the utility's compliance plan. In that regard, LG&E does not propose to include in its monthly ECR filings, following approval of the recovery of its 2004 Compliance Plan, any emission allowance expense associated with combustion turbine emissions.

In accordance with FERC General Instruction 21, Allowances, Part A in 18 CFR Chapter 1, LG&E's allowance inventory balance will not be associated with specific allowances. FERC requires only that the cost of allowance purchases be matched with allowances by vintage; current vintage allowances and their associated acquisition costs are included in FERC Account 158.1; future vintage allowances and their associated acquisition costs are included in FERC Account 158.2. (The only non-current allowances LG&E owns are the future year allowances allocated by EPA at zero cost.) The dollar value of LG&E's inventory balance will not be assigned to specific generating units and LG&E's monthly environmental rate base will include total allowance inventory balance.

When determining the expense associated with monthly SO₂ allowances, LG&E will follow the FERC General Instruction 21, Allowances, Part D, which mandates a monthly weighted-average method of cost determination rather than a specific assignment method. The average cost of allowances will be applied to all allowances committed for surrender, regardless of the source of the emissions. That is, steam units and combustion turbines will incur the same average cost of allowances used, but only allowances used by the steam units will be included in LG&E's monthly ECR filings following Commission approval of the recovery of its 2004 Compliance Plan, if granted.

- b. No. There are no SO₂ emissions from combustion turbines or allowances allocated to combustion turbines included in LG&E response the Staff's First Request, Item 11(e).

- c. The minimum desired bank level represents LG&E's next year's EPA allowance allocation less LG&E's next year's projected emissions, rounded to the closest 1,000 tons. This minimum bank level would allow the Company to maintain compliance through all of the next year and much of the following year since the EPA allocated allowances would be available again in January of the following year. Anything less than that amount would result in the available allowances providing for less than one year of compliance. The desired bank level had a floor of 7,000 tons. This inventory level allows for unexpected outages of scrubbed units, periods of lower scrubber removal efficiencies, and higher than planned generation levels.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2004-00421

Response to Second Data Requests of Commission Staff Dated February 23, 2005

Question No. 9

Responding Witness: Valerie L. Scott

- Q-9. Will LG&E's weighted average cost per ton of eligible vintage SO₂ allowances in inventory include the estimated cost of allowances expected to be purchased or only allowances actually purchased? Explain the response.
- A-9. LG&E has recorded and will record in FERC Account No. 158.1, the actual purchases for emission allowances. LG&E will not record allowances into inventory until an actual purchase transaction has taken place.