



RECEIVED

DEC 7 2016

PUBLIC SERVICE  
COMMISSION

Dr. Talina R. Mathews  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, Kentucky 40601

**Louisville Gas and  
Electric Company**  
State Regulation and Rates  
220 West Main Street  
PO Box 32010  
Louisville, Kentucky 40232  
www.lge-ku.com

December 7, 2016

Christopher M. Garrett  
Director Rates  
T 502-627-3328  
F 502-627-3213  
chris.garrett@lge-ku.com

**RE: *Application of Louisville Gas and Electric Company For An Order  
Approving the Establishment of a Regulatory Asset***  
**Case No. 2016-00393**

Dear Dr. Mathews:

On November 30, 2016 Louisville Gas and Electric Company ("LG&E") filed responses to Commission Staff's Requests for Information made at the Informal Conference held on November 22, 2016 in the above referenced matter. On December 1, 2016 as contemplated, LG&E terminated the interest rate swap with Bank of America Merrill Lynch ("Bank of America"). Enclosed please find and accept for filing LG&E's supplemental response to Question No. 3.

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

Sincerely,

Christopher M. Garrett

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**APPLICATION OF LOUISVILLE GAS AND ELECTRIC ) CASE NO.**  
**COMPANY FOR AN ORDER APPROVING THE ) 2016-00393**  
**ESTABLISHMENT OF A REGULATORY ASSET )**

**SUPPLEMENTAL RESPONSE OF**  
**LOUISVILLE GAS AND ELECTRIC COMPANY**  
**TO**  
**INFORMATION REQUESTED**  
**AT THE INFORMAL CONFERENCE**  
**HELD ON NOVEMBER 22, 2016**  
**AND**  
**ORIGINALLY FILED ON NOVEMBER 30, 2016**

**FILED: December 7, 2016**

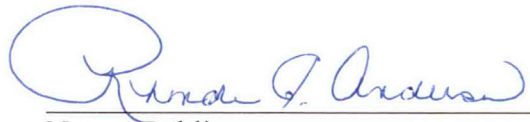
VERIFICATION

COMMONWEALTH OF KENTUCKY )  
 ) SS:  
COUNTY OF JEFFERSON )

The undersigned, **Daniel K. Arbough**, being duly sworn, deposes and says that he is Treasurer for Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and 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.

  
\_\_\_\_\_  
**Daniel K. Arbough**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 7<sup>th</sup> day of December 2016.

  
\_\_\_\_\_  
Notary Public (SEAL)

My Commission Expires:

August 31, 2019

**LOUISVILLE GAS AND ELECTRIC COMPANY**

**December 7, 2016 Supplemental Response to Information Requested at the Informal  
Conference  
Held on November 22, 2016**

**Case No. 2016-00393**

**Question No. 3**

**Responding Witness: Daniel K. Arbough**

Q-3. Provide in Excel spreadsheet format, the LG&E Bond Payoff compared to a Proposed Bank Direct Purchase for the \$25 million bond.

A-3. **Original Response**

See attachment being provided in Excel format on the enclosed CD.

**December 7, 2016 Supplemental Response**

As planned, the Company redeemed the \$25 million bond on December 1, 2016 and agreed to terminate the \$32 million interest rate swap on that same day. The actual amount due to terminate the swap was \$9.409 million which was due two business days later on December 5. The analysis of the bond payoff compared to the proposed bank direct purchase reflecting the actual termination amount is attached as Attachment 1. It also includes an updated tax rate. The analysis shows that the bond redemption and swap termination has an NPV cost that is \$3.6 million lower than the bank direct purchase alternative. The confirmation agreement with Bank of America showing the termination value is being provided as Attachment 2.

Attachment 1 is being provided in Excel format on the enclosed CD.

## LG&E \$25MM Bond Payoff Compared to Proposed Bank Direct Purchase

### Net Income Impact

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
LG&E Payoff	\$ (552,138)	\$ (583,534)	\$ (619,136)	\$ (658,582)	\$ (696,065)
Direct Purchase	\$ <u>(907,847)</u>	\$ <u>(902,919)</u>	\$ <u>(897,198)</u>	\$ <u>(890,695)</u>	\$ <u>(884,266)</u>
Variance	\$ 355,709	\$ 319,385	\$ 278,062	\$ 232,113	\$ 188,201

### NPV Cash Flow Impact

LG&E Payoff	\$ (7,731,566)
Direct Purchase	\$ <u>(11,348,181)</u>
Variance	\$ 3,616,614

LG&E  
Debt Analysis

LG&E - Proposed Bank Direct Purchase

Impact on Cash Flow

DIRECT PURCHASE

Date	Borrowing	Swap Interest	Swap Termination	Interest on Borrowing	Interest on Swap Termination	Unamortized Expense on Bond	Debt Expense Amortization (1)	Swap Termination Amortization	Issue Expenses	Taxes	Total Cash Outlay	Present Value
01-Dec-16	\$ 25,000,000								\$247,675		\$ 247,675	247,675
31-May-17	\$ 25,000,000	\$ 529,507		135,698		52,947	24,767			(288,996)	376,209	375,463
01-Dec-17	\$ 25,000,000	\$ 529,507		135,698		52,947	24,767			(288,996)	376,209	374,719
31-May-18	\$ 25,000,000	\$ 511,073		150,099		52,947	24,767			(287,427)	373,745	371,527
01-Dec-18	\$ 25,000,000	\$ 511,073		150,099		52,947	24,767			(287,427)	373,745	370,791
31-May-19	\$ 25,000,000	\$ 489,668		166,822		52,947	24,767			(285,605)	370,884	367,223
01-Dec-19	\$ 25,000,000	\$ 489,668		166,822		52,947	24,767			(285,605)	370,884	366,495
31-May-20	\$ 25,000,000	\$ 465,341		185,828		52,947	24,767			(283,535)	367,633	362,562
01-Dec-20	\$ 25,000,000	\$ 465,341		185,828		52,947	24,767			(283,535)	367,633	361,843
31-May-21	\$ 25,000,000	\$ 441,290		204,617		52,947	24,767			(281,489)	364,418	357,968
01-Dec-21	\$ 25,000,000	\$ 441,290		204,617		52,947	24,767		247,675	(281,489)	612,093	600,067
31-May-22	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	357,275
01-Dec-22	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	356,567
31-May-23	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	355,860
01-Dec-23	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	355,155
31-May-24	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	354,451
01-Dec-24	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	353,748
31-May-25	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	353,047
01-Dec-25	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	352,347
31-May-26	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	351,648
01-Dec-26	\$ 25,000,000	\$ 441,290		204,617		52,947	22,862			(280,748)	365,160	350,951
01-May-27	\$ 25,000,000	\$ 441,290		170,514		44,122	19,052			(262,567)	349,238	334,984
01-Dec-27		\$ 441,290								(171,662)	269,628	258,111
31-May-28		\$ 441,290								(171,662)	269,628	257,599
01-Dec-28		\$ 441,290								(171,662)	269,628	257,088
31-May-29		\$ 441,290								(171,662)	269,628	256,579
01-Dec-29		\$ 441,290								(171,662)	269,628	256,070
31-May-30		\$ 441,290								(171,662)	269,628	255,562
01-Dec-30		\$ 441,290								(171,662)	269,628	255,056
31-May-31		\$ 441,290								(171,662)	269,628	254,550
01-Dec-31		\$ 441,290								(171,662)	269,628	254,046
31-May-32		\$ 441,290								(171,662)	269,628	253,542
01-Dec-32		\$ 441,290								(171,662)	269,628	253,039
31-May-33		\$ 441,290								(171,662)	269,628	252,538
01-Oct-33		\$ 441,290								(171,662)	269,628	252,037
	TOTAL	\$15,464,716		\$3,902,814	\$0	\$1,103,061		\$0	\$495,350	(\$8,155,751)	\$11,707,129	
	NPV		11,240,728									11,348,181

(1) Debt Amortization Expense includes issuing costs of new series .

(2) Tax calculation based on interest expense and the amortization of new issue debt expense.

**Assumptions**

**LG&E - Proposed Bank Direct Purchase**

Interest	Year	Year	Year	Year	Year
	2017	2018	2019	2020	2021
CP Rates	0.65%	0.82%	1.01%	1.22%	1.44%
LIBOR Per Plan	0.55%	0.72%	0.91%	1.12%	1.34%
70% LIBOR	0.39%	0.50%	0.63%	0.79%	0.94%
Spread	0.70%	0.70%	0.70%	0.70%	0.70%
All-In Rate	1.09%	1.20%	1.33%	1.49%	1.64%

Maturity Date	01-Oct-33
# of Months	202
8/31/2016 MTM	(11,712,535)
Monthly Amort.	(57,983)
6 Months	(347,897)

**Income Statement Impact**

	2017	2018	2019	2020	2021
Fees	0	0	0	0	0
Interest	(271,395)	(300,199)	(333,644)	(371,655)	(409,234)
Swap Interest	(1,059,014)	(1,022,146)	(979,335)	(930,681)	(882,580)
Amortization	(155,429)	(155,429)	(155,429)	(155,429)	(155,429)
Taxes @ 40.363%	577,981	574,854	571,211	567,071	562,978
Net Income	(907,847)	(902,919)	(897,198)	(890,695)	(884,266)

Notional Amount	32,000,000			
	Receive		Pay	
	SIFMA (70% LIBOR)	Floating Rate	Fixed Rate (3.695%)	LG&E Pays
01-Dec-16				
31-May-17	0.39%	(61,693)	591,200	529,507
01-Dec-17	0.39%	(61,693)	591,200	529,507
31-May-18	0.50%	(80,127)	591,200	511,073
01-Dec-18	0.50%	(80,127)	591,200	511,073
31-May-19	0.63%	(101,532)	591,200	489,668
01-Dec-19	0.63%	(101,532)	591,200	489,668
31-May-20	0.79%	(125,859)	591,200	465,341
01-Dec-20	0.79%	(125,859)	591,200	465,341
31-May-21	0.94%	(149,910)	591,200	441,290
01-Dec-21	0.94%	(149,910)	591,200	441,290

\$ 25,000,000

Bond Issue Costs		0.99%	\$247,675
Underwriting	0.200%		
Bond Counsel	\$ 45,514.63	0.18%	
Company Counsel	\$ 58,555.22	0.23%	
Underwriters Counsel	\$ 45,105.00	0.18%	
Ratings	\$ 40,000.00	0.16%	
Printing	\$ -	0.00%	
Trustee Counsel	\$ 2,500.00	0.01%	
Accountants	\$ -	0.00%	
Trustee	\$ 6,000.00	0.02%	
FMB Trustee	\$ -	0.00%	
AMT		0.00%	

Issuance costs 0.79%

**MISCELLANEOUS**

Tax rate 38.900% 0

Discount rate 0.40%

LG&E  
Debt Analysis

LG&E - Payoff LG&E \$25MM Bond

**Impact on Cash Flow**

Date	Borrowing	Swap Termination	Interest on Borrowing	Interest on Swap Termination	Loss on Reacquired Debt	Unamortized Expense on Bond	Swap Termination Amortization	Taxes	Total Cash Outlay	Present Value
01-Dec-16	\$25,000,000	\$ 9,409,000			1,286,421			(4,160,519)	\$ 5,248,481	5,248,481
31-May-17	\$25,000,000	\$ 9,129,525	81,354	29,709		61,748	279,475	(43,203)	67,859	67,725
01-Dec-17	\$25,000,000	\$ 8,850,050	81,354	28,799		61,748	279,475	(42,850)	67,304	67,037
31-May-18	\$25,000,000	\$ 8,570,574	101,927	34,943		61,748	279,475	(53,243)	83,628	83,131
01-Dec-18	\$25,000,000	\$ 8,291,099	101,927	33,804		61,748	279,475	(52,799)	82,932	82,276
31-May-19	\$25,000,000	\$ 8,011,624	125,817	40,320		61,748	279,475	(64,627)	101,510	100,508
01-Dec-19	\$25,000,000	\$ 7,732,149	125,817	38,914		61,748	279,475	(64,080)	100,651	99,459
31-May-20	\$25,000,000	\$ 7,452,673	152,968	45,601		61,748	279,475	(77,243)	121,326	119,652
01-Dec-20	\$25,000,000	\$ 7,173,198	152,968	43,891		61,748	279,475	(76,578)	120,281	118,386
31-May-21	\$25,000,000	\$ 6,893,723	179,810	49,582		61,748	279,475	(89,234)	140,159	137,678
01-Dec-21	\$25,000,000	\$ 6,614,248	179,810	47,572		61,748	279,475	(88,452)	138,931	136,201
31-May-22	\$25,000,000	\$ 6,334,772	179,810	45,562		61,748	279,475	(87,670)	137,703	134,729
01-Dec-22	\$25,000,000	\$ 6,055,297	179,810	43,552		61,748	279,475	(86,888)	136,474	133,263
31-May-23	\$25,000,000	\$ 5,775,822	179,810	41,542		61,748	279,475	(86,106)	135,246	131,802
01-Dec-23	\$25,000,000	\$ 5,496,347	179,810	39,532		61,748	279,475	(85,324)	134,018	130,346
31-May-24	\$25,000,000	\$ 5,216,871	179,810	37,522		61,748	279,475	(84,542)	132,790	128,896
01-Dec-24	\$25,000,000	\$ 4,937,396	179,810	35,512		61,748	279,475	(83,760)	131,562	127,450
31-May-25	\$25,000,000	\$ 4,657,921	179,810	33,502		61,748	279,475	(82,978)	130,334	126,010
01-Dec-25	\$25,000,000	\$ 4,378,446	179,810	31,492		61,748	279,475	(82,196)	129,105	124,575
31-May-26	\$25,000,000	\$ 4,098,970	179,810	29,481		61,748	279,475	(81,415)	127,877	123,146
01-Dec-26	\$25,000,000	\$ 3,819,495	179,810	27,471		61,748	279,475	(80,633)	126,649	121,721
01-May-27	\$25,000,000	\$ 3,586,599	149,842	21,497		51,457	232,896	(66,651)	104,688	100,415
01-Dec-27		\$ 3,260,545		27,360			326,054	(10,643)	16,717	16,003
31-May-28		\$ 2,981,069		21,441			279,475	(8,341)	13,100	12,516
01-Dec-28		\$ 2,701,594		19,431			279,475	(7,559)	11,872	11,320
31-May-29		\$ 2,422,119		17,421			279,475	(6,777)	10,644	10,129
01-Dec-29		\$ 2,142,644		15,411			279,475	(5,995)	9,416	8,943
31-May-30		\$ 1,863,168		13,401			279,475	(5,213)	8,188	7,761
01-Dec-30		\$ 1,583,693		11,391			279,475	(4,431)	6,960	6,583
31-May-31		\$ 1,304,218		9,380			279,475	(3,649)	5,731	5,411
01-Dec-31		\$ 1,024,743		7,370			279,475	(2,867)	4,503	4,243
31-May-32		\$ 745,267		5,360			279,475	(2,085)	3,275	3,080
01-Dec-32		\$ 465,792		3,350			279,475	(1,303)	2,047	1,921
31-May-33		\$ 186,317		1,340			279,475	(521)	819	767
01-Oct-33		\$ 0		0			186,317	(0)	0	0
<b>TOTAL</b>			<b>\$3,231,699</b>	<b>\$932,456</b>		<b>\$1,286,421</b>	<b>\$9,409,000</b>	<b>(\$5,780,375)</b>	<b>\$7,792,780</b>	
<b>NPV</b>										<b>7,731,566</b>

(0)

(1) Debt Amortization Expense includes issuing costs of new series .  
(2) Tax calculation based on interest expense and the amortization of new issue debt expense.



**Assumptions**

**LG&E - Payoff LG&E \$25MM Bond**

**Interest**

	Year	Year	Year	Year	Year
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
CP RATES	0.65%	0.82%	1.01%	1.22%	1.44%

Maturity Date	01-Oct-33
# of Months	202
Swap Termination 12/16	(9,409,000)
Monthly Amort.	(46,579)
6 Months	(279,475)

**Income Statement Impact**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Fees	0	0	0	0	0
Interest	(162,708)	(203,855)	(251,635)	(305,936)	(359,621)
Swap	(58,508)	(68,747)	(79,234)	(89,492)	(97,155)
Amortization	(682,447)	(682,447)	(682,447)	(682,447)	(682,447)
Taxes @ 40.363%	351,525	371,514	394,180	419,293	443,158
Net Income	(552,138)	(583,534)	(619,136)	(658,582)	(696,065)

**MISCELLANEOUS**

Tax rate	<input type="text" value="38.900%"/>	0
Discount rate	<input type="text" value="0.40%"/>	

**Bank of America**   
**Merrill Lynch**

To: Louisville Gas and Electric Company  
220 West Main Street  
Louisville, KY 21111  
Louisville  
KY 402021395  
United States

Attn: Daniel Arbough  
Telephone: 502-627-4956  
Fax: 502-627-4742  
cc: John Wiedmar  
cc: Frank Mazza  
cc: Clark Elliot

From: Bank of America, N.A.  
Department: Swaps Operations  
Telephone: (+1) 980 683 2797  
Fax: (+1) 866 255 1444

Date: 1st December 2016

Our Reference No: 13074460  
Internal Tracking 13074460  
No:  
USI: 1030282338VII13074460

Dear Sir/Madam,

**Re: Termination of the Transaction between Louisville Gas and Electric Company and Bank of America, N.A. (our ref.: 13074460) with an Effective Date of 12th December 2003, Termination Date of 1st October 2033 and Notional Amount of USD 32,000,000.00 (the "Transaction").**

The purpose of this letter agreement (this "Confirmation") is to confirm the terms and conditions on which the Transaction (the terms of which are set out in the Confirmation with our ref.: 13074460 (the "Transaction Confirmation")) will be terminated. Capitalised terms used but not defined herein will have the meanings ascribed to them in the Transaction Confirmation.

This Confirmation supplements, forms part of and is subject to, the ISDA Master Agreement between you and us referred to in the Transaction Confirmation (the "Agreement"). This letter agreement constitutes a "Confirmation" as referred to in the Agreement. All provisions contained in the Agreement govern this Confirmation except as expressly modified below.

Notwithstanding the Termination Date for the Transaction specified in the Transaction Confirmation, the Transaction will terminate on 1st December, 2016 (the "Early Termination Date") and all future obligations of Bank of America, N.A. and Louisville Gas and Electric Company under the Transaction, other than the payment of the Termination Amount (as defined below), with effect from and including the Early Termination Date will be terminated.

In consideration of the early termination of the Transaction, USD 9,409,000.00 (the "Termination Amount") will be payable by you to us on or before 5th December, 2016 in respect of such termination.

This Confirmation shall be governed by, and construed in accordance with, the Governing Law stated in the Agreement or the Transaction Confirmation, as the case may be.

Please confirm that the foregoing correctly sets forth the terms and conditions of our agreement by returning via telecopier an executed copy of this Confirmation in its entirety to the attention of Global FX and Derivative Operations (fax no. (+1) 866 255 1444).

Bank of America, N.A.



**Lisa Palmieri**  
**Director**

Authorised Signatory

Our Reference Number: 13074460

Accepted and confirmed as of the date first written:

Louisville Gas and Electric Company

By: 

Name: Daniel K. Arbough

Title: Treasurer