



Mr. Jeff DeRouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40602

RECEIVED  
SEP 02 2009  
PUBLIC SERVICE  
COMMISSION

**Kentucky Utilities Company**  
State Regulation and Rates  
220 West Main Street  
PO Box 32010  
Louisville, Kentucky 40232  
www.eon-us.com

Robert M. Conroy  
Director - Rates  
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September 2, 2009

**RE: THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR  
CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY  
AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR  
RECOVERY BY ENVIRONMENTAL SURCHARGE  
CASE NO. 2009-00197**

Dear Mr. DeRouen:

Please find enclosed and accept for filing the original and eight (8) copies of the Response of Kentucky Utilities Company to the First Set of Data Requests of Kentucky Industrial Utility Customers, Inc. dated August 18, 2009, in the above-referenced matter.

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

Sincerely,

Robert M. Conroy

Enclosures

cc: Parties of Record

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

**In the Matter of:**

<b>APPLICATION OF KENTUCKY UTILITIES</b>	)	
<b>COMPANY FOR CERTIFICATES OF PUBLIC</b>	)	
<b>CONVENIENCE AND NECESSITY AND</b>	)	<b>CASE NO.</b>
<b>APPROVAL OF ITS 2009 COMPLIANCE PLAN</b>	)	<b>2009-00197</b>
<b>FOR RECOVERY BY ENVIRONMENTAL</b>	)	
<b>SURCHARGE</b>	)	

**RESPONSE OF**  
**KENTUCKY UTILITIES COMPANY**  
**TO**  
**KIUC FIRST SET OF DATA REQUESTS**  
**DATED AUGUST 18, 2009**

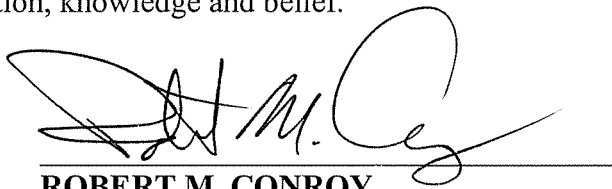
**FILED: September 2, 2009**



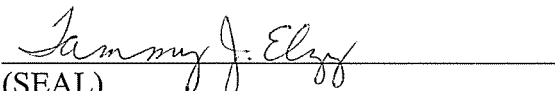
VERIFICATION

COMMONWEALTH OF KENTUCKY )  
 ) SS:  
COUNTY OF JEFFERSON )

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

  
\_\_\_\_\_  
**ROBERT M. CONROY**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 2<sup>nd</sup> day of September 2009.

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

My Commission Expires:

November 9, 2010



**KENTUCKY UTILITIES COMPANY**

**Response to KIUC First Set of Data Requests  
Dated August 18, 2009**

**Case No. 2009-00197**

**Question No. 1-1**

**Witness: Robert M. Conroy**

Q-1-1. Refer to page 2 of Exhibit RMC-3. Please provide the Company's computations of terms ROR, DR, and TR for the most recent monthly environmental surcharge filing. Provide these computations in electronic spreadsheet format with formulas intact. In addition, please provide copies of source documents relied on for the assumptions and data inputs used for these computations.

A-1-1. The Rate of Return (ROR) is calculated in accordance with Commission precedence, utilizing a 10.63% return on equity as approved in Case No. 2008-00251 (KU's most recent rate case).

Attached to this response is ES Form 1.10 of KU's most recent monthly environmental surcharge filing (Attachment 1). The composite federal and state income tax rate (TR) and the debt rate (DR) for the July 2009 expense month filing were approved by the KPSC in Case No. 2008-00550, the most recent six-month review of KU's ECR. The final Order is attached for reference (Attachment 2). The computations as provided in Case No. 2008-00550 in response to the Commission Staff's data request No. 6 and attached to this response (Attachment 3) are provided on the attached compact disk in electronic format with the formulas intact.

ES FORM 1.10

**KENTUCKY UTILITIES COMPANY  
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Total E(m) and  
Jurisdictional Surcharge Billing Factor**

**For the Expense Month of July 2009**

**Calculation of Total E(m)**

$E(m) = [(RB / 12) (ROR + (ROR - DR)(TR / (1 - TR)))] + OE - BAS$ , where

RB = Environmental Compliance Rate Base  
ROR = Rate of Return on the Environmental Compliance Rate Base  
DR = Debt Rate (both short-term and long-term debt)  
TR = Composite Federal & State Income Tax Rate  
OE = Pollution Control Operating Expenses  
BAS = Total Proceeds from By-Product and Allowance Sales

		Environmental Compliance Plans
RB	= \$	1,265,464,875
RB / 12	=	105,455,406
$(ROR + (ROR - DR) (TR / (1 - TR)))$	=	11.12%
OE	=	3,773,914
BAS	=	-
E(m)	= \$	15,500,555

**Calculation of Jurisdictional Environmental Surcharge Billing Factor**

Jurisdictional Allocation Ratio for Expense Month	=	85.22%
Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio	= \$	13,209,573
Adjustment for Monthly True-up (from Form 2.00)	=	1,675,235
Adjustment for Under-collection pursuant to Case No. 2008-00550	=	658,217
Prior Period Adjustment (if necessary)	=	-
Net Jurisdictional E(m) = Jurisdictional E(m) minus Adjustment for Monthly True-up plus/minus Prior Period Adjustment	= \$	15,543,025
Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month	= \$	90,921,476
Jurisdictional Environmental Surcharge Billing Factor: Net Jurisdictional E(m) / Jurisdictional R(m) ; as a % of Revenue	=	<b>17.09%</b>

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION BY THE PUBLIC SERVICE )  
COMMISSION OF THE ENVIRONMENTAL )  
SURCHARGE MECHANISM OF KENTUCKY ) CASE NO. 2008-00550  
UTILITIES COMPANY FOR THE SIX-MONTH )  
BILLING PERIOD ENDING OCTOBER 31, 2008 )

O R D E R

On January 28, 2009, the Commission initiated a six-month review of Kentucky Utilities Company's ("KU") environmental surcharge as billed to customers for the six-month period May 1, 2008 to October 31, 2008.<sup>1</sup> Pursuant to KRS 278.183(3), the Commission must review, at six-month intervals, the past operations of a utility's environmental surcharge. After hearing, the Commission may, by temporary adjustment of the surcharge, disallow any surcharge amounts that are not just and reasonable and reconcile past surcharge collections with actual costs recoverable pursuant to KRS 278.183(1). There are no intervenors in this case.

The Commission issued a procedural schedule that provided for discovery, the filing of prepared testimony, an informal conference, and a public hearing. KU filed prepared direct testimony and responded to requests for information. On March 6, 2009, KU and Commission Staff ("Staff") participated in an informal conference to discuss the issues in the case. During the conference, Staff requested further

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<sup>1</sup> KU's surcharge is billed on a two-month lag. Thus, surcharge billings for May 2008 through October 2008 are based on costs incurred from March 2008 through August 2008.



information, which KU submitted on March 10, 2009. In its response to the Commission's May 14, 2009 Order, KU requested that this case be submitted for a decision based on the existing record without a public hearing. Based on the absence of intervenors and finding good cause, the Commission will grant KU's request and decide this case based on the evidence of record without a hearing.

SURCHARGE ADJUSTMENT

The January 28, 2009 Order initiating this case indicated that the Commission would entertain proposals to adopt one adjustment factor to net all over- or under-recoveries that may have occurred during the period under review in this proceeding. KU determined that it had a net under-recovery of environmental costs for the billing period ending October 31, 2008 of \$3,949,299.<sup>2</sup> It proposed that the net under-recovery be collected from customers in the six months following the Commission's Order in this proceeding.<sup>3</sup>

The Commission has reviewed and finds reasonable KU's calculation of a net under-recovery of \$3,949,299 for the billing period covered in this proceeding. The Commission also finds reasonable KU's proposal to increase the total jurisdictional environmental surcharge revenue requirement by \$658,217 in the first three months following the date of this Order and by \$658,216 in the next three months. The Commission estimates that a customer with a monthly electric bill of \$100 will see an

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<sup>2</sup> Conroy Direct Testimony at 3.

<sup>3</sup> Id. at 6.

increase of approximately \$0.75 per month due to the recovery of the net under-recovery over the six-month period.

#### RATE OF RETURN

KU provided the outstanding balances for its long-term debt, short-term debt, and common equity as of August 31, 2008, the last expense month of the review period. It also provided the blended interest rates for its long-term and short-term debt as of August 31, 2008.<sup>4</sup> Using this information, along with the currently approved 10.63 percent return on equity,<sup>5</sup> KU calculated an overall rate of return on capital, before income tax gross-up, of 7.94 percent.<sup>6</sup> KU also provided the overall rate of return on capital reflecting the tax gross-up approach approved in Case No. 2004-00426.<sup>7</sup>

The Commission has reviewed KU's determination of the overall rate of return on capital and finds 7.94 percent to be reasonable. The Commission has also reviewed the determination of the tax gross-up factor and finds that it is consistent with the approach approved in Case No. 2004-00426. Therefore, the Commission finds that the

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<sup>4</sup> Response to Commission Staff's Data Request, Item 6.

<sup>5</sup> Case No. 2008-00251, Application of Kentucky Utilities Company for an Adjustment of Electric Base Rates (Ky. PSC Feb. 5, 2009).

<sup>6</sup> Response to Commission Staff's Data Request, Item 6.

<sup>7</sup> Case No. 2004-00426, The Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity to Construct Flue Gas Desulfurization Systems and Approval of Its 2004 Compliance Plan and Recovery by Environmental Surcharge (Ky. PSC June 20, 2005) and Response to the Commission Staff's Data Request in this proceeding dated January 28, 2009, Item 6. In the response, KU determined that the income tax gross-up factor was 0.580, which would produce a tax grossed-up weighted average cost of capital of 11.12 percent.

weighted average cost of capital of 7.94 percent and the income tax gross-up factor of 0.580 should be used in all KU monthly environmental surcharge filings subsequent to the date of this Order.

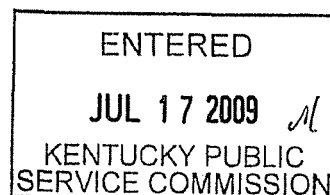
IT IS THEREFORE ORDERED that:

1. KU's request to submit this case for a decision on the existing evidence of record without a hearing is granted.

2. KU shall add \$658,217 to its jurisdictional environmental revenue requirement determined in each of the first three billing months following the date of this Order and \$658,216 in the next three months following the date of this Order, as discussed herein.

3. KU shall use an overall rate of return on capital of 7.94 percent and a tax gross-up factor of 0.580 in all monthly environmental surcharge filings subsequent to the date of this Order.

By the Commission



ATTEST:

  
\_\_\_\_\_  
Executive Director

Lonnie E Bellar  
Vice President - State Regulation  
Kentucky Utilities Company  
220 West Main Street  
P. O. Box 32010  
Louisville, KY 40202

**Attachment 2 to Response to KIUC Question No. 1-1**  
**Page 5 of 5**  
**Conroy**

**KENTUCKY UTILITIES COMPANY**

**Response to Information Requested in Appendix B of  
Commission's Order Dated January 28, 2009**

**Case No. 2008-00550**

**Question No. 6**

**Witness: Shannon L. Charnas**

- Q-6. The Commission previously ordered that KU's cost of debt and preferred stock would be reviewed and re-established during the 6-month review case. Provide the following information as of August 31, 2008:
- a. The outstanding balances for long-term debt, short-term debt, preferred stock, and common equity. Provide this information on total company and Kentucky jurisdictional bases.
  - b. The blended interest rates for long-term debt, short-term debt, and preferred stock. Include all supporting calculations showing how these blended interest rates were determined. If applicable, provide the blended interest rates on total company and Kentucky jurisdictional bases.
  - c. KU's calculation of its weighted average cost of capital for environmental surcharge purposes.
- A-6.
- a. Please see the attachment. There was no preferred stock as of August 31, 2008, therefore it is not listed in the attached schedule.
  - b. Please see the attachment. There was no preferred stock as of August 31, 2008, therefore it is not listed in the attached schedule.
  - c. Please see the attachment. KU is utilizing a return on equity of 10.63% as agreed to and approved by the Commission in its February 5, 2009 Order in Case No. 2008-00251.

Kentucky Utilities Company  
Outstanding Balances - Capitalization  
As of August 31, 2008

1	2	3
	Outstanding Balance Total Company	Outstanding Balance KY Jurisdictional 87.94%
1 Long-Term Debt	\$1,359,159,520	\$1,195,244,882
2 Short-Term Debt	\$129,285,454	\$113,693,628
3 Common Equity	\$1,611,419,322	\$1,417,082,152

Kentucky Utilities Company  
Blended Interest Rates  
As of August 31, 2008

	1
	Blended Interest Rate Total Company
1 Long-Term Debt	5.32%
2 Short-Term Debt	2.44%

**KENTUCKY UTILITIES COMPANY**  
**ANALYSIS OF THE EMBEDDED COST OF CAPITAL AT**  
**August 31, 2008**

	Due	Rate	Principal	Interest(income)	Annualized Cost			Total	Embedded Cost
					Amortized Debt Issuance Expense	Premium	Amortized Loss-Required Debt		
<b>LONG-TERM DEBT</b>									
Pollution Control Bonds -									
Series 11 - Series A	05/01/23	1.90000% *	12,900,000 <sup>2</sup>	245,100	-	-	34,599	279,699	2.17
Series 11 - Series A	05/01/23	1.90000% *	(12,900,000) <sup>2</sup>	(245,100)	-	-	-	(245,100)	1.90
Series 12	02/01/32	1.75000% *	20,930,000	366,275	4,104	-	36,300	406,679	1.94
Series 13	02/01/32	1.75000% *	2,400,000	42,000	2,856	-	4,164	49,020	2.04
Series 14	02/01/32	1.75000% *	7,400,000	129,500	3,180	-	15,660	148,340	2.00
Series 15	02/01/32	1.75000% *	2,400,000	42,000	1,140	-	12,744	55,884	2.33
Series 16	10/01/32	3.62300% *	96,000,000	3,478,080	72,837	-	186,036	3,736,953	3.89
Series 17	10/01/34	4.00000% *	50,000,000 <sup>2</sup>	2,000,000	-	-	94,212	2,094,212	4.19
Series 17	10/01/34	4.00000% *	(50,000,000) <sup>2</sup>	(2,000,000)	-	-	-	(2,000,000)	4.00
Series 18	06/01/35	3.55000% *	13,266,950	470,977	17,813	-	-	488,790	3.68
Series 19	06/01/35	3.55000% *	13,266,950	470,977	18,102	-	-	489,079	3.69
Series 20	06/01/36	6.15800% *	16,693,620	1,027,993	20,806	-	-	1,048,799	6.28
Series 21	06/01/36	1.66000% *	16,693,620 <sup>2</sup>	277,114	-	-	20,839	297,953	1.78
Series 21	06/01/36	1.66000% *	(16,693,620) <sup>2</sup>	(277,114)	-	-	-	(277,114)	1.66
Series 22	10/01/34	6.21000% *	54,000,000	3,353,400	37,464	-	-	3,390,864	6.28
CC 2007A \$17.8M	02/01/26	5.75000% *	17,875,000	1,027,813	31,205	-	-	1,059,018	5.92
TC 2007A \$8.9M	03/01/37	6.00000% *	8,927,000	535,620	14,287	-	-	549,907	6.16
Called Bonds			-	-	-	-	110,904 <sup>1</sup>	110,904	-
<b>Total External Debt</b>			<b>253,159,520</b>	<b>10,944,635</b>	<b>223,794</b>	<b>-</b>	<b>515,458</b>	<b>11,683,887</b>	<b>0.86%</b>
Notes Payable to Fidelity Corp.	04/30/13	4.550%	100,000,000	4,550,000	-	-	-	4,550,000	4.55
Notes Payable to Fidelity Corp.	08/15/13	5.310%	75,000,000	3,982,500	-	-	-	3,982,500	5.31
Notes Payable to Fidelity Corp.	11/24/10	4.240%	33,000,000	1,399,200	-	-	-	1,399,200	4.24
Notes Payable to Fidelity Corp.	01/16/12	4.390%	50,000,000	2,195,000	-	-	-	2,195,000	4.39
Notes Payable to Fidelity Corp.	07/08/15	4.735%	50,000,000	2,367,500	-	-	-	2,367,500	4.74
Notes Payable to Fidelity Corp.	12/21/15	5.360%	75,000,000	4,020,000	-	-	-	4,020,000	5.36
Notes Payable to Fidelity Corp.	06/23/36	6.330%	50,000,000	3,165,000	-	-	-	3,165,000	6.33
Notes Payable to Fidelity Corp.	10/25/16	5.675%	50,000,000	2,837,500	-	-	-	2,837,500	5.68
Notes Payable to Fidelity Corp.	02/07/22	5.690%	53,000,000	3,015,700	-	-	-	3,015,700	5.69
Notes Payable to Fidelity Corp.	03/30/37	5.860%	75,000,000	4,395,000	-	-	-	4,395,000	5.86
Notes Payable to Fidelity Corp.	06/20/17	5.980%	50,000,000	2,990,000	-	-	-	2,990,000	5.98
Notes Payable to Fidelity Corp.	09/14/28	5.960%	100,000,000	5,960,000	-	-	-	5,960,000	5.96
Notes Payable to Fidelity Corp.	10/25/19	5.710%	70,000,000	3,997,000	-	-	-	3,997,000	5.71
Notes Payable to Fidelity Corp.	12/19/14	5.450%	100,000,000	5,450,000	-	-	-	5,450,000	5.45
Notes Payable to Fidelity Corp.	05/22/23	5.850%	75,000,000	4,387,500	-	-	-	4,387,500	5.85
Notes Payable to Fidelity Corp.	07/25/18	6.160%	50,000,000	3,080,000	-	-	-	3,080,000	6.16
Notes Payable to Fidelity Corp.	08/27/18	5.645%	50,000,000	2,822,500	-	-	-	2,822,500	5.65
<b>Total Internal Debt</b>			<b>1,106,000,000</b>	<b>60,614,400</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>60,614,400</b>	<b>4.46%</b>
<b>Total</b>			<b>1,359,159,520</b>	<b>71,559,035</b>	<b>223,794</b>	<b>0</b>	<b>515,458</b>	<b>72,298,287</b>	<b>5.32%</b>

	Rate	Principal	Interest	Annualized Cost			Total	Embedded Cost
				Expense	Premium	Loss		
<b>SHORT TERM DEBT</b>								
Notes Payable to Associated Company	2.440% *	129,285,454	3,154,565	-	-	-	3,154,565	2.44
<b>Total</b>		<b>129,285,454</b>	<b>3,154,565</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,154,565</b>	<b>2.44%</b>

Embedded Cost of Total Debt 75,452,852 **5.07%**

\* Composite rate at end of current month.

1 Series P and R bonds were redeemed in 2003, and 2005, respectively. They were not replaced with other bond series. The remaining unamortized expense is being amortized over the remainder of the original lives (due 5/15/07 and 6/1/25 respectively) of the bonds as loss on required debt.

2 Reacquired bonds, which net to zero as they are also included in Short Term Debt Notes Payable to Associated Company



Kentucky Utilities Company  
 Outstanding Balances - Adjusted Jurisdictional Capitalization  
 August 31, 2008

1	2	3	4	5	6	7
	Electric Only	Capital Structure	Cost Rate	Weighted Average Cost of Capital	Tax Gross-up Factor	Weighted Average Cost of Capital with Equity Gross-up
1	Long-Term Debt	781,961,523	44.20%	5.32%	2.35%	2.35%
2	Short-Term Debt	74,381,446	4.20%	2.44%	0.10%	0.10%
3	Common Equity	912,829,361	51.60%	10.63%	5.49%	8.67%
4	Total	1,769,172,330			7.94%	11.12%
						Rate of Return (ROR) Grossed Up: 11.12%

Weighted Cost of Capital Grossed up for Income Tax Effect  $\{ROR + (ROR - Debt\ rate) \times [TR/(1-TR)]\}$

See tax rate (TR) calculation on 6(c) page (2)

**ECR - Gross-up Revenue Factor &  
Composite Income Tax Calculation  
2008**

		2008 Federal & State Production Credit W/ 6% 2008 State <u>Tax Rate Included</u>
(1)	1. Assume pre-tax income of	\$ 100.0000
(2)		
(3)	2. State income tax (see below)	5.6604 (37)
(4)		
(5)	3. Taxable income for Federal income tax	
(6)	before production credit	94.3396 (1)-(3)
(7)		6%
(8)	4. Less: Production tax credit (6% of Line 3)	5.6604 (6)*(7)
(9)		
(10)	5. Taxable income for Federal income tax	88.6792 (6)-(8)
(11)		
(12)	6. Federal income tax (35% of Line 5)	31.0377 (10)*35%
(13)		
(14)	7. Total State and Federal income taxes	
(15)	(Line 2 + Line 6)	\$ 36.6981 (3)+(12)
(16)		
(17)	8. Gross-up Revenue Factor	63.3019 100-(15)
(18)		
(19)	9. Therefore, the composite rate is:	
(20)	10. Federal	31.0377% (12)/100
(21)	11. State	5.6604% (3)/100
(22)	12. Total	36.6981% (20)+(21)
(23)		
(24)		
(25)		
(26)		
(27)		
(28)	<u>State Income Tax Calculation</u>	
(29)	1. Assume pre-tax income of	\$ 100.0000
(30)		
(31)	2. Less: Production tax credit	5.6604 (8)
(32)		
(33)	3. Taxable income for State income tax	94.3396 (29)-(31)
(34)		
(35)	4. State Tax Rate	6.0000%
(36)		
(37)	5. State Income Tax	5.6604 (33)*(35)



**KENTUCKY UTILITIES COMPANY**

**Response to KIUC First Set of Data Requests  
Dated August 18, 2009**

**Case No. 2009-00197**

**Question No. 1-2**

**Witness: Robert M. Conroy**

Q-1-2. Refer to page 2 of Exhibit RMC-3. Please provide the Company's computations of terms ROR, DR, and TR for the most recent monthly environmental surcharge filing adjusted for known and measurable changes that will occur in 2010, such as any changes in the Section 199 percentage deduction, if any. Provide these computations in electronic spreadsheet format with formulas intact. In addition, please provide copies of source documents relied on for the assumptions and data inputs used for these computations.

A-1-2. Please see the attached spreadsheet, provided on compact disk in electronic format with the formulas intact, which calculates the tax gross-up factor and assumed rate of return for KU's ECR filings, assuming 1) the cost of debt, capital structure and return on equity are unchanged from Case No. 2008-00550 (See Response to KIUC Question No. 1-1) and 2) the Kentucky Production Tax Credit increases to the maximum rate of 9% in 2010 and all other tax rates remain unchanged from current levels.



**KENTUCKY UTILITIES COMPANY**

**Response to KIUC First Set of Data Requests  
Dated August 18, 2009**

**Case No. 2009-00197**

**Question No. 1-3**

**Witness: John N. Voyles / Robert M. Conroy**

Q-1-3. Refer to project 33 on page 2 of Exhibit JNV-1 providing estimates of the O&M expenses for beneficial reuse projects.

- a. Please provide the computational support for these estimates.
- b. Please provide all support that demonstrates that these estimates reflect only incremental O&M expense and reflect no re-allocation or diversion of existing resources and O&M expense.
- c. Please provide an estimate of revenues from the beneficial reuse projects. If the Company projects no revenues, please explain why not.
- d. Does the Company agree that it will reflect any revenues from beneficial reuse projects in the environmental surcharge?
- e. Please provide a copy of all documentation that references, describes, and/or quantifies savings that may or will be achieved as a result of the beneficial reuse projects.

A-1-3. The requested information is being provided for each of the referenced beneficial reuse projects.

1. Holcim is the opportunity to transport Trimble County fly ash to a cement manufacturing facility in Missouri. Please see pages 41-42 of Mr. Voyles's testimony for more details on the Holcim project.
  - a. The cash flow below is the O&M associated with the beneficial reuse of fly ash by Holcim in cement production. It is based on a total of \$750,000 annual cost (2009 \$), however the contract is assumed to start in mid 2010 so \$375,000 is incurred in 2010. KU's cost is determined by first adjusting the total to reflect E.ON U.S.'s 75% ownership of Trimble County; KU's cost is then calculated as 48% of the adjusted total (LG&E's share is 52%), as



- b. Trimble County is currently contracting with SYNMAT for gypsum beneficial reuse. Costs associated with this contract do not begin until SYNMAT completes construction of a barge loading facility on-site exclusively for the gypsum loading. Because these costs are tied to the new construction by SYNMAT, these costs are incremental for the plant. These costs are not expected to begin until spring 2010 (currently April).
- c. The Company does not anticipate revenues as a result of the SYNMAT project.
- d. The Company will reflect in the environmental surcharge revenues from beneficial reuse associated with projects included in the monthly environmental surcharge filing. As stated in Mr. Conroy's testimony, page 6 lines 1 through 3, KU is proposing to modify ES Forms 1.10 and 2.00 to separately identify the operation and maintenance costs, and/or revenues if applicable, associated with beneficial reuse opportunities. As shown on Exhibit RMC-1, KU is proposing to revise its tariff to include the operation and maintenance costs, and/or revenues if applicable, associated with beneficial reuse opportunities in the calculation of the revenue requirement.
- e. O&M expenses incurred as a result of the SYNMAT project are entirely incremental in nature. Additionally, KU does not anticipate that the level of expenses currently in base rates will be impacted by the operation of the Trimble County landfill or the Holcim fly ash operations.
3. Trans Ash Inc is the opportunity to reuse gypsum and ash from the Ghent station as structural fill. Please see page 41 of Mr. Voyles's testimony for additional details about the Trans Ash project.
- a. The Trans Ash cash flow is O&M and is based on a 2009 cost per ton, as provided on page 10 of Exhibit CRS-3, footnote 13, to excavate, load, transport, and place the CCP, subject to annual adjustments to the base price and fuel cost adjustments. Annual reuse is expected to be 0.65 million tons of CCP in both 2010 and 2011 and 0.2 million tons in 2012.

Ghent Station	2010	2011	2012
Beneficial Reuse O&M (\$)	3,786,868	3,867,651	1,215,311

- b. Ghent is contracting with Trans Ash for the gypsum supply associated with this beneficial reuse opportunity. The contract is expected to begin in late 2009 and run through the end of 2012. This is a new contract and the costs associated are incremental to the plant. Since this is a new contract, all costs



associated with it will be tracked in a unique manner by project and task to a specific FERC account for ECR gypsum disposal for beneficial reuse.

- c. The Company does not anticipate revenues as a result of the Trans Ash project.
- d. The Company will reflect in the environmental surcharge revenues from beneficial reuse associated with projects included in the monthly environmental surcharge filing. As stated in Mr. Conroy's testimony, page 6 lines 1 through 3, KU is proposing to modify ES Forms 1.10 and 2.00 to separately identify the operation and maintenance costs, and/or revenues if applicable, associated with beneficial reuse opportunities. As shown on Exhibit RMC-1, KU is proposing to revise its tariff to include the operation and maintenance costs, and/or revenues if applicable, associated with beneficial reuse opportunities in the calculation of the revenue requirement.
- e. Exhibit JNV-2 (pg 11) makes a general statement in regard to savings associated with beneficial reuse and explains that savings are primarily realized in the form of avoided CCP disposal costs such as delaying the construction of new, or expansion of existing, impoundments or landfills.



**KENTUCKY UTILITIES COMPANY**

**Response to KIUC First Set of Data Requests  
Dated August 18, 2009**

**Case No. 2009-00197**

**Question No. 1-4**

**Witness: John N. Voyles / Robert M. Conroy**

Q-1-4. Refer to project 30 of Exhibit JNV-1.

- a. Please provide the computational support for these estimates.
- b. Please provide all support that demonstrates that these estimates reflect only incremental O&M expense and reflect no re-allocation or diversion of existing resources and O&M expense, particularly given that the reason for the new landfill is that "Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012." [Voyles at 26].
- c. Please provide the O&M expense for the most recent 12 months associated with the operation of the existing landfill. In addition, please indicate which activities and which portion of the expense will continue to be incurred for the existing landfill once it is at capacity and the Company commences use of the new landfill.
- d. Please provide a copy of all documentation that references savings that may or will be achieved as a result of this project.

A-1-4. a. Please see the attached spreadsheet for the requested information.

- b. Currently, the CCP materials are stored in an impoundment. The materials are transported to the impoundment by means of sluicing. For the new CCP storage, a landfill will be developed and will require different systems to transport the CCP than what is currently used to sluice the material to the existing impoundment
- c. KU incurred \$2.4 million in the twelve month period ending July 31, 2009. KU anticipates that there will be some reduction in the level of these expenses after the landfill goes in service and ATB #2 reaches its maximum desired capacity, however, the level of reduction is unknown at this time. KU

commits that incremental O&M associated with the landfill will be netted against the level of ash handling O&M included in KU's base rates.

- d. Exhibit JNV-2 (pg 11) makes a general statement in regard to savings associated with beneficial reuse and explains that savings are primarily realized in the form of avoided CCP disposal costs such as delaying the construction of new, or expansion of existing, impoundments or landfills. Other than the possible reduction discussed in part (c) above, the project will not result in savings.

## GHENT LANDFILL (PHASE I)

Capital Expenditures (\$ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
<b>Property Acquisition</b>											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	4.66
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	0.03
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	2.37
<b>Higher End House Acquisition</b>											
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	1.40
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	2.46
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	4.14
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	0.27
<b>CCWD Relocation</b>											
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	0.82
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	0.12
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	0.72
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	82.31
<b>Initial Site Preparation</b>											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	1.96
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	1.58
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	0.59
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	0.18
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	0.33
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	1.15
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	0.35
<b>Liner Subgrade Preparation</b>											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	1.01
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	0.49
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	0.99
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	1.57
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	0.76
<b>Gypsum Dewatering Facility Earthwork</b>											
Excavating	-	-	-	0.73	-	-	-	-	-	-	0.73
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	1.53
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	1.21
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	0.24

## GHENT LANDFILL (PHASE I)

Capital Expenditures (\$ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
<b>Haul Roads</b>											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	0.87
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	1.33
<b>Liner</b>											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	22.30
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	3.90
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	0.60
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	0.25
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	0.07
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	0.29
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	0.09
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	0.08
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	0.54
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	0.35
<b>Cap</b>											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	1.24
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	0.96
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	0.12
<b>Total</b>	<b>0.46</b>	<b>3.72</b>	<b>40.73</b>	<b>57.01</b>	<b>69.65</b>	<b>13.10</b>	<b>10.44</b>	<b>0.62</b>	<b>0.65</b>	<b>0.69</b>	<b>197.07</b>
<b>E.ON-US Overheads</b>	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	6.90
<b>Total with Overheads</b>	<b>0.47</b>	<b>3.85</b>	<b>42.16</b>	<b>59.01</b>	<b>72.09</b>	<b>13.56</b>	<b>10.81</b>	<b>0.64</b>	<b>0.68</b>	<b>0.72</b>	<b>203.97</b>

## GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs (\$)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill	-	-	-	-	-	-	-	-
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill	-	-	-	-	-	-	-	-
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
<b>Maintenance</b>								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
<b>TOTAL</b>	<b>121,349</b>	<b>128,630</b>	<b>136,348</b>	<b>19,003,308</b>	<b>20,143,507</b>	<b>21,352,117</b>	<b>22,633,244</b>	<b>23,991,239</b>