LG&E Energy LLC
220 West Main Street (40202)
P.O. Box 32030
Louisville, Kentucky 40232

March 13, 2006

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

RE: ***Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Transmission Facilities In Jefferson, Bullitt, Meade, and Hardin Counties***
Case No. 2005-00467

Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Alternative Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky
Case No. 2005-00472

Dear Ms. O'Donnell:

Enclosed please find an original and eight (8) copies of the Response of Louisville Gas and Electric Company's ("LG&E) and Kentucky Utilities Company's ("KU") Response to the Commission Staff's Supplemental Data Request dated March 6, 2006.

Should you have any questions concerning the enclosed, please do not hesitate to contact me at (502) 627-4110.

Sincerely,

John Wolfram
Manager, Regulatory Affairs

cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY FOR THE CONSTRUCTION OF TRANSMISSION FACILITIES IN JEFFERSON, BULLITT, MEADE, AND HARDIN COUNTIES, KENTUCKY	)	**CASE NO. 2005-00467**
JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY FOR THE CONSTRUCTION OF ALTERNATIVE TRANSMISSION FACILITIES IN JEFFERSON, BULLITT, MEADE, AND HARDIN COUNTIES, KENTUCKY	)	**CASE NO. 2005-00472**

JOINT RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
AND KENTUCKY UTILITIES COMPANY
TO
COMMISSION STAFF'S SUPPLEMENTAL DATA REQUEST
IN THE ABOVE-CITED CASES
DATED MARCH 6, 2006

FILED: March 13, 2006

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 1

Witness: Brandon Grillon

Q-1. Describe the efforts, such as the use of post insulators or V-string insulators, that were made to reduce additional right-of-way requirements.

A-1. As set forth in the response to Question No. 19 below, the proposed right of way width of 200' is the typical width the Companies would request from property owners for a 345 kV line built with horizontal construction. Use of post insulators was considered but the Companies felt that the short span construction and height of structures required to maintain clearances would be detrimental to property owners and long span construction with shorter horizontal type structures would be better received by property owners. Use of V-string insulators may be contemplated by the Companies in the final design stage of the project to facilitate clearances for conductor blowout with other transmission lines.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 2

Witness: Brandon Grillon

Q-2. Were any mitigation efforts considered in addition to those mentioned in Item 1 above? If yes, describe them.

A-2. Single shaft structures with V-Strings are being used in the rebuilt sections so no extra right of way will be required for the double circuit lines.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 3

Witness: Michael G. Toll

Q-3. If Route #2 were constructed, would the increased length of line require any different system elements or element timing in the Transmission Expansion Plan for serving native load need during the study period? Has this been verified by analysis?

A-3. No. This has been verified via internal analysis. The original studies were performed with an impedance equivalent to 43 miles of line. A sensitivity study was performed as part of the review of the Applications. Line lengths of 41 and 45 miles were simulated in three scenarios: (1) a base case, (2) an outage of Brown North to Hardin Co 345 kV and (3) an outage of Ghent to West Lexington to Brown 345 kV. The maximum change in flow for each of the three scenarios was less than 1% of rating, which indicates that no different system elements or timing is required in the Transmission Expansion Plan.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 4

Witness: Brandon Grillon

Q-4. Roads are used as collocation possibilities. Is there a deduction given to these line segments because of visual considerations? If yes, describe in detail.

A-4. No.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 5

Witness: Brandon Grillon

Q-5. When using gas pipeline corridors as route segments, were the gas companies consulted about impacts of stray currents or right-of-way use perspective? If no, were transmission line costs increased because of these factors?

A-5. The transmission line will be located at the edge of the gas pipeline easement such that the structures will not be located on the easement but the line will make use of the gas line easement as an existing buffer. Transmission personnel did consult with gas pipeline personnel at LG&E and any mitigation efforts that may be required will be addressed in the final line design. Cost was not increased in these segments.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 6

Witness: Clay M. Doherty

Q-6. Refer to CMD-1. Are the weighting factors the same as those used in Case No. 2005-00207? If no, state the before and after weighting factors and document the reason for the change.

A-6. Yes.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 7

Witness: David S. Sinclair

Q-7. Provide the 15-year LG&E and KU annual system 50/50 peak load forecast used in the evaluation of need in Case No. 2005-001422 and the similar current system load forecasts.

A-7. Please see attached. The forecast used in Case No. 2005-0142 was based on the LG&E/KU 2004 Load Forecast. The LG&E/KU 2005 forecast is current and does not differ significantly from the 2004 Forecast.

2004 Forecast

Combined Company 2004 Forecast

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	34,468	6,696	5,647
2006	35,143	6,811	5,754
2007	35,954	6,951	5,896
2008	36,797	7,125	5,974
2009	37,462	7,272	6,142
2010	38,121	7,383	6,223
2011	38,931	7,556	6,388
2012	39,644	7,662	6,500
2013	40,493	7,859	6,574
2014	41,285	7,993	6,768
2015	42,033	8,159	6,890
2016	42,719	8,292	6,972
2017	43,524	8,430	7,134
2018	44,424	8,587	7,287
2019	45,306	8,794	7,355
2020	46,182	8,965	7,569

LG&E 2004 Forecast

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	12,657	2,629	1,805
2006	12,870	2,673	1,835
2007	13,024	2,705	1,857
2008	13,266	2,756	1,892
2009	13,478	2,800	1,922
2010	13,722	2,850	1,957
2011	14,011	2,910	1,998
2012	14,269	2,964	2,035
2013	14,584	3,029	2,079
2014	14,865	3,088	2,120
2015	15,151	3,147	2,160
2016	15,421	3,203	2,199
2017	15,713	3,264	2,241
2018	16,047	3,333	2,288
2019	16,374	3,401	2,335
2020	16,686	3,466	2,379

KU 2004 Forecast*

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	21,812	4,067	3,842
2006	22,273	4,153	3,923
2007	22,930	4,275	4,039
2008	23,530	4,387	4,145
2009	23,983	4,472	4,225
2010	24,399	4,549	4,297
2011	24,920	4,646	4,390
2012	25,376	4,731	4,470
2013	25,909	4,830	4,564
2014	26,420	4,925	4,654
2015	26,883	5,012	4,735
2016	27,298	5,089	4,808
2017	27,810	5,184	4,899
2018	28,377	5,290	4,999
2019	28,933	5,393	5,097
2020	29,496	5,499	5,196

* includes ODP

2005 Forecast

Combined Company 2005 Forecast

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	34,896	6,732	5,743
2006	35,706	6,874	5,873
2007	36,748	7,057	6,053
2008	37,625	7,238	6,199
2009	38,288	7,382	6,303
2010	38,873	7,480	6,373
2011	39,634	7,641	6,531
2012	40,267	7,730	6,631
2013	41,015	7,906	6,760
2014	41,674	8,015	6,864
2015	42,304	8,154	6,967
2016	42,837	8,257	7,025
2017	43,529	8,373	7,171
2018	44,226	8,488	7,291
2019	44,848	8,644	7,393
2020	45,439	8,758	7,485

LG&E 2005 Forecast

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	12,688	2,635	1,803
2006	12,945	2,688	1,840
2007	13,226	2,746	1,879
2008	13,504	2,804	1,919
2009	13,725	2,850	1,950
2010	13,928	2,892	1,979
2011	14,188	2,946	2,016
2012	14,397	2,990	2,046
2013	14,647	3,042	2,081
2014	14,861	3,086	2,112
2015	15,088	3,133	2,144
2016	15,271	3,171	2,170
2017	15,485	3,216	2,201
2018	15,733	3,267	2,236
2019	15,967	3,316	2,269
2020	16,169	3,358	2,298

KU 2005 Forecast*

	Energy Requirements (GWh)	Summer Peak (MW)	Winter Peak (MW)
2005	22,208	4,097	3,940
2006	22,761	4,199	4,039
2007	23,523	4,340	4,174
2008	24,120	4,450	4,280
2009	24,563	4,532	4,358
2010	24,945	4,602	4,426
2011	25,446	4,695	4,515
2012	25,870	4,773	4,590
2013	26,368	4,865	4,678
2014	26,813	4,947	4,757
2015	27,216	5,021	4,829
2016	27,566	5,086	4,891
2017	28,044	5,174	4,976
2018	28,492	5,257	5,055
2019	28,881	5,328	5,124
2020	29,271	5,400	5,194

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 8

Witness: Michael G. Toll

Q-8. Have LG&E/KU reliability criteria or system rating methods for the determination of system reinforcements to serve native load changed since that information was supplied in Case No. 2005-00142? If yes, specifically describe the changes.

A-8. No.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Dated March 6, 2006

Question No. 9

Witness: Clay M. Doherty

Q-9. Provide the logic that Linear Projects, Inc. ("LP") and Photo Science, Inc. ("PS") has used in other engagements when making its semi-final and final route selections using the Electric Power Research Institute ("EPRI") evaluation. If the EPRI evaluation process was not used, describe the logic that was used.

A-9. As a member of interdisciplinary project siting teams, I have previously worked on 56 transmission line siting projects. The EPRI methodology was not yet available at the time of those projects. For these projects, traditional transmission siting practices were exercised. These include (a) examining project study areas, inventorying land uses and built features, known environmental constraints, and engineering considerations, with the intent of understanding routing opportunities and constraints within the study area, (b) identifying several (normally three or four) routing alternatives which minimize impacts to the built and natural environment while addressing engineering considerations, and (c) selecting preferred routes which meet project requirements while avoiding/minimizing impacts to land uses and known environmental features. The decisions to identify routing alternatives and select preferred routing alignments were determined by consensus among the project team members.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 10

Witness: John Wolfram

Q-10. If a transmission project were to cost $10 million in capital investment, and assuming immediate rate base inclusion, provide the annual revenue requirements of that investment over its life including operations and maintenance ("O&M"), property taxes, and accelerated federal income tax. Provide the inputs used, including inflation and O&M.

A-10. The Companies ordinarily determine annual revenue requirements for major projects by utilizing a Fixed Charge Rate ("FCR") for levelizing the revenue requirements over the life of an asset. The Companies first determine the FCR, which considers the book life, tax life, construction period, capital escalation rate, weighted average cost of capital, depreciation, income tax and property tax. The FCR is 9.72%; see attached worksheet. Then the Companies apply the FCR to the amount of the capital investment, to determine the annual revenue requirement of that investment over the asset life.

In this instance, a capital investment of $10 million produces a revenue requirement of $972,000 per year for forty years, excluding O&M. The long-term annual O&M costs estimated in the Applications in these cases are approximately $160,000. Thus the total annual revenue requirement including O&M, subject to the given assumptions, is estimated to be $1,132,000.

IN-SERVICE COST 100.00 COST OF REMOVAL 0.00
BOOK LIFE (YRS) 40 TAX LIFE (YRS) 20
CONSTRUCTION YEARS (10 MAX) 2 CAPITAL ESC RATE (%) 2.43
ANNUAL EXPEND (%) 50 50 0 0 0 0 0 0 0 0
ELIGIBLE FOR CWIP 97.72 GENERATION PROJECT? (Y OR N) N

AFUDC DATA (%)	RATIO	COST
EQUITY	56.27	10.16
DEBT	43.73	3.55

FINANCIAL DATA (%)	RATIO	COST
PREFERRED STOCK	2.98	4.16
COMMON STOCK	53.29	10.50
DEBT	43.73	3.55
WEIGHTED AVERAGE COST OF CAPITAL		7.27

TAX RATES (%)

INCOME	38.90	GROSS RECEIPTS	00.00
AD-VALOREM	0.15	CAPITALIZED INT	3.55

INSURANCE RATE (%) 0.080

TAX DEPRECIATION METHOD -3- DEC BAL RATE -1.50-
1 = STRAIGHT LINE
2 = DECLINING BALANCE
3 = DECLINING SWITCH TO STRAIGHT LINE
4 = SUM OF YEARS DIGITS
5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
6 = ACCRELATED COST RECOVERY SYSTEM
7 = SINKING FUND

CONSTRUCTION PERIOD

YR	CONST BAL	AFUDC DEBT	AFUDC EQTY	ACCUM AFUDC	ACCUM CAP INT	CONST RATE BASE	TAX DEFR	ACCUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	REV REQ	DISC RATE	FV OF REV REQ	ACCUM FV OF REV REQ
1	49.40	0.01	0.03	0.04	0.88	48.60	-0.34	-0.34	2.78	0.75	2.13	5.33	1.073	5.72	5.72
2	100.00	0.01	0.05	0.11	2.22	98.55	-0.52	-0.85	2.82	0.76	2.35	5.42	1.000	5.42	11.13

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.11	100.11	0.00	2	102.22	3.83	1.49	0.64	2.84	0.77	0.32	0.08	0.04	5.54	1.000	5.54	16.67	16.67
2	0.00	100.11	2.50	2	98.39	7.38	1.90	2.53	5.44	1.48	1.57	0.15	0.08	13.11	0.932	12.22	28.90	14.95
3	0.00	97.60	2.50	2	91.01	6.83	1.68	4.22	5.20	1.41	1.63	0.15	0.08	12.65	0.869	10.99	39.89	14.24
4	0.00	95.10	2.50	2	84.18	6.31	1.48	5.70	4.97	1.35	1.68	0.14	0.08	12.21	0.810	9.89	49.78	13.78
5	0.00	92.60	2.50	2	77.87	5.84	1.30	7.00	4.75	1.29	1.73	0.14	0.08	11.79	0.755	8.90	58.68	13.44
6	0.00	90.10	2.50	2	72.03	5.40	1.13	8.13	4.54	1.23	1.77	0.14	0.08	11.39	0.704	8.02	66.70	13.16
7	0.00	87.59	2.50	2	66.63	5.00	0.97	9.10	4.35	1.18	1.80	0.13	0.08	11.01	0.656	7.22	73.93	12.91
8	0.00	85.09	2.50	2	61.63	4.62	0.83	9.92	4.16	1.13	1.82	0.13	0.08	10.64	0.612	6.51	80.44	12.69
9	0.00	82.59	2.50	1	57.01	4.56	0.80	10.73	3.97	1.08	1.73	0.12	0.08	10.28	0.570	5.86	86.30	12.49
10	0.00	80.09	2.50	1	52.45	4.56	0.80	11.53	3.78	1.03	1.61	0.12	0.08	9.91	0.532	5.27	91.57	12.31
11	0.00	77.58	2.50	1	47.89	4.56	0.80	12.33	3.59	0.97	1.49	0.12	0.08	9.55	0.496	4.73	96.30	12.13
12	0.00	75.08	2.50	1	43.32	4.56	0.80	13.13	3.40	0.92	1.36	0.11	0.08	9.18	0.462	4.24	100.55	11.97
13	0.00	72.58	2.50	1	38.76	4.56	0.80	13.93	3.21	0.87	1.24	0.11	0.08	8.82	0.431	3.80	104.34	11.82
14	0.00	70.07	2.50	1	34.20	4.56	0.80	14.73	3.02	0.82	1.12	0.11	0.08	8.46	0.402	3.39	107.74	11.67
15	0.00	67.57	2.50	1	29.64	4.56	0.80	15.53	2.83	0.77	1.00	0.10	0.08	8.09	0.374	3.03	110.77	11.53
16	0.00	65.07	2.50	1	25.08	4.56	0.80	16.33	2.64	0.72	0.88	0.10	0.08	7.73	0.349	2.70	113.46	11.40
17	0.00	62.57	2.50	1	20.52	4.56	0.80	17.14	2.46	0.67	0.76	0.09	0.08	7.36	0.325	2.39	115.86	11.27
18	0.00	60.06	2.50	1	15.96	4.56	0.80	17.94	2.27	0.62	0.64	0.09	0.08	7.00	0.303	2.12	117.98	11.15
19	0.00	57.56	2.50	1	11.40	4.56	0.80	18.74	2.08	0.56	0.52	0.09	0.08	6.63	0.283	1.88	119.86	11.03
20	0.00	55.06	2.50	1	6.84	4.56	0.80	19.54	1.89	0.51	0.40	0.08	0.08	6.27	0.263	1.65	121.51	10.92
21	0.00	52.56	2.50	1	2.28	2.28	-0.09	19.45	1.75	0.48	1.20	0.08	0.08	6.00	0.246	1.47	122.98	10.81
22	0.00	50.05	2.50	0	0.00	0.00	-0.97	18.48	1.66	0.45	2.03	0.08	0.08	5.83	0.229	1.34	124.32	10.71
23	0.00	47.55	2.50	0	0.00	0.00	-0.97	17.51	1.58	0.43	1.98	0.07	0.08	5.66	0.213	1.21	125.53	10.62
24	0.00	45.05	2.50	0	0.00	0.00	-0.97	16.54	1.49	0.40	1.92	0.07	0.08	5.49	0.199	1.09	126.62	10.54
25	0.00	42.55	2.50	0	0.00	0.00	-0.97	15.56	1.40	0.38	1.87	0.06	0.08	5.32	0.185	0.99	127.60	10.46
26	0.00	40.04	2.50	0	0.00	0.00	-0.97	14.59	1.31	0.36	1.81	0.06	0.08	5.15	0.173	0.89	128.50	10.38
27	0.00	37.54	2.50	0	0.00	0.00	-0.97	13.62	1.23	0.33	1.75	0.06	0.08	4.98	0.161	0.80	129.30	10.32
28	0.00	35.04	2.50	0	0.00	0.00	-0.97	12.65	1.14	0.31	1.70	0.05	0.08	4.81	0.150	0.72	130.02	10.25
29	0.00	32.53	2.50	0	0.00	0.00	-0.97	11.67	1.05	0.29	1.64	0.05	0.08	4.64	0.140	0.65	130.67	10.19
30	0.00	30.03	2.50	0	0.00	0.00	-0.97	10.70	0.96	0.26	1.59	0.05	0.08	4.47	0.131	0.58	131.25	10.13
31	0.00	27.53	2.50	0	0.00	0.00	-0.97	9.73	0.88	0.24	1.53	0.04	0.08	4.30	0.122	0.52	131.78	10.08
32	0.00	25.03	2.50	0	0.00	0.00	-0.97	8.75	0.79	0.21	1.48	0.04	0.08	4.12	0.113	0.47	132.24	10.03
33	0.00	22.52	2.50	0	0.00	0.00	-0.97	7.78	0.70	0.19	1.42	0.03	0.08	3.95	0.106	0.42	132.66	9.98
34	0.00	20.02	2.50	0	0.00	0.00	-0.97	6.81	0.61	0.17	1.36	0.03	0.08	3.78	0.099	0.37	133.04	9.93
35	0.00	17.52	2.50	0	0.00	0.00	-0.97	5.84	0.53	0.14	1.31	0.03	0.08	3.61	0.092	0.33	133.37	9.89
36	0.00	15.02	2.50	0	0.00	0.00	-0.97	4.86	0.44	0.12	1.25	0.02	0.08	3.44	0.086	0.29	133.66	9.85
37	0.00	12.51	2.50	0	0.00	0.00	-0.97	3.89	0.35	0.10	1.20	0.02	0.08	3.27	0.080	0.26	133.92	9.81
38	0.00	10.01	2.50	0	0.00	0.00	-0.97	2.92	0.26	0.07	1.14	0.02	0.08	3.10	0.074	0.23	134.15	9.77
39	0.00	7.51	2.50	0	0.00	0.00	-0.97	1.95	0.18	0.05	1.09	0.01	0.08	2.93	0.069	0.20	134.36	9.74
40	0.00	5.01	2.50	0	0.00	0.00	-0.97	0.97	0.09	0.02	1.03	0.01	0.08	2.76	0.065	0.18	134.54	9.71
41	0.00	2.50	2.50	0	0.00	0.00	-0.97	0.00	0.00	0.00	0.97	0.00	0.04	2.55	0.060	0.15	134.69	9.67
																40 Yr Fcr =		**9.72**

Attachment to Question No. 10
Page 2 of 2
Wolfram

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 11

Witness: John Wolfram

Q-11. Considering the results of Item 10 above and the current load forecast for average annual customer kWh usage and growth, and the current forecast for total customer count and energy growth per average customer, provide the average customer cost by year for the life of the project assuming immediate rate base inclusion.

A-11. Please see the table below. The revenue requirement is estimated at $1,132,000 per year for forty years, as explained in the response to Question No. 10. The forecast is provided in response to Question No. 7. The book life of the asset is forty years but the load forecast period is only fifteen years; thus the customer cost impact by year is provided only for the first fifteen years of the asset life (assuming construction started at the first year of the forecast, in 2005).

It is important to note that at this time the true "impact on customer rates" cannot be determined absent a rate case. In a rate case, rates are determined not based on any single project but on adjusted utility revenues and expenses in their entirety for the given test period. Thus it is not accurate to assert that any transmission project has an actual impact on customer rates without consideration of a rate case, including its timing, content, and outcome.

Additionally, the calculation provided depends on numerous significant assumptions. One assumption is that perfect rate treatment occurs. Others include (i) forecast accuracy, (ii) fixed tax rates, cost of capital, and project life, and (iii) commencement of construction in 2005. Finally, the calculation does not account for specific rate design, i.e. differences in customer class (residential, commercial, industrial) and the corresponding differences in rate design for different customer classes served under different tariffs.

Although the validity of the assumptions may be questionable, the calculation is sufficient to reasonably support the general conclusion that, while the Companies strive to use the least-cost alternative feasible for the project, for an expenditure of

this magnitude, for a utility of the size and scale of LG&E and KU, the rate impact on any individual customer is negligible.

Year	Customers	Annual Cost ($)	Annual Cost ($/customer)
2005	893,989	1,132,000	1.27
2006	905,667	1,132,000	1.25
2007	917,545	1,132,000	1.23
2008	929,509	1,132,000	1.22
2009	941,562	1,132,000	1.20
2010	953,578	1,132,000	1.19
2011	964,960	1,132,000	1.17
2012	976,330	1,132,000	1.16
2013	987,791	1,132,000	1.15
2014	999,342	1,132,000	1.13
2015	1,010,645	1,132,000	1.12
2016	1,020,281	1,132,000	1.11
2017	1,029,731	1,132,000	1.10
2018	1,039,235	1,132,000	1.09
2019	1,048,794	1,132,000	1.08
2020	1,058,246	1,132,000	1.07

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Question No. 12

Witness: Clay M. Doherty

Q-12. Which routes would LP/PS recommend to the Commission as reasonable routes in addition to Route #1 and Route #2?

A-12. Although differences exist among them, six semi-finalist routes screened well against the three perspectives and could be considered to be reasonable routes. In addition to Routes AJU and AJW, reasonable routes include Route AQL, Route KY, Route KZ, and Route YB.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Question No. 13

Witness: Clay M. Doherty

Q-13. State the instructions given to either LP or PS by LG&E/KU and the instructions given to PS by LP for the conduct of the independent route analysis.

A-13. LG&E/KU initially requested Photo Science to document the data underlying the route selection more completely after the initial application in Case No. 2005-00142 was denied and Photo Science engaged Linear Projects to help with this task. After the informal conference with the Kentucky Public Service Commission staff and further study, Linear Projects was subsequently tasked with conducting an independent analysis and review of the data to prepare an independent evaluation of the reasonableness of the Companies' route selection, based on an expanded universe of routes that attempted to take into consideration the various collocation opportunities within the study area.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Question No. 14

Witness: Brandon Grillon

Q-14. Describe any consideration given to road crossings to reduce visual impacts.

A-14. If a low growth of vegetation is available to screen structures at road crossings it will be left in place where feasible. Structures will be located to conceal the view of the structures if possible. The horizontal construction proposed by the Companies also gives a lower structure profile.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Dated March 6, 2006

Question No. 15

Witness: John Wolfram

Q-15. Provide a copy of the presentation by J. Wolfram dated January 11, 2006 describing LGE/KU's efforts in siting the proposed facilities.

A-15. Please see attached.

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Louisville Gas and Electric Company and Kentucky Utilities Company
Mill Creek – Hardin County 345 kV Line
Case Nos. 2005-00467 and 2005-00472

January 11, 2006

John Wolfram
Manager, Regulatory Affairs

Companies' Objective

- *Construct facilities needed to accommodate the addition of the Trimble County Unit 2 in a reliable manner by target in-service date*
  - *Transmit power to KU and LG&E native load customers;*
  - *Meet transmission operating and planning criteria*
- *Design and construct the necessary transmission line:*
  - *Conduct thorough analysis;*
  - *Balance all appropriate factors, including cost and impacts;*
  - *Utilize existing facilities, including substations, lines, and rights of way;*
  - *Solicit and consider comments of affected property owners;*
  - *Meet regulatory, legal, and environmental obligations*

Overview of the Companies' Route Selection Process

- *Examine PSC orders in Case Nos. 2005-00142, 00154 and 00155 and in other utility cases (Case Nos. 2004-00365, 2005-00089 and 2005-00207);*
- *Assemble and review material developed for Case No. 2005-00142.*
- *Informal Staff Conference on October 4, 2005; Staff recommended process:*

1. *Establish need;*
2. *Identify a universe of routes that will work electrically, including corridors that utilize existing facilities, such as substations, lines and rights-of-way;*
3. *Identify a least cost alternative;*
4. *Consider rate impact of routes that are not least cost;*
5. *Analyze the types of considerations in the analysis and evaluation portion of the EPRI methodology or the like;*

Overview of the Companies' Route Selection Process (cont.)

- *Consult with PhotoScience and Clay Doherty throughout the process;*
- *Define area of inquiry with 100% co-location boundary routes;*
- *Identified 1,203 routes within the area of inquiry;*
- *Did not utilize EPRI macro-corridor analysis (pursuant to Commission guidance provided in the Staff Conference and Case No. 2005-00207);*
- *Estimate percent of co-location on each of the 1,203 routes;*
- *Estimate the cost to construct each of the 1,203 routes;*

Overview of the Companies' Route Selection Process (cont.)

- *Apply the analysis and evaluation portion of the EPRI methodology to each route;*
- *Consult with Fort Knox and eliminate the routes rejected by Fort Knox;*
- *Eliminate the routes that cost 125% or more than the cost of the least cost route;*
- *Conduct sensitivity analyses;*
- *Select preferred and alternative routes using aforementioned data and expert judgment.*

Purpose of Doherty's Analysis

- *Support and advise the Companies throughout the route selection process;*
- *Produce a report using independent analytical methodology for the identification of reasonable routes for the line;*
- *Provide expert testimony in these proceedings.*

Description of Doherty's Analysis

- *Used the same data the Companies used in their analysis;*
- *Determined that the analysis and evaluation portion of the EPRI methodology did not work well with 1,203 routes:*

  —Normalization produced irrational results;

  —Cost differences are not appropriately emphasized in the evaluation;
- *Used an alternative route analysis and evaluation:*

  —Identification of five "baskets" of routes and one basket of cross-over routes;

  —Application of the analysis and evaluation portion of the EPRI methodology within the baskets;

Description of Doherty's Analysis (cont.)

—Develop list of "top fives" routes within the baskets;

—Screen "top fives" routes against the three EPRI perspectives (built, natural and engineering);

—Develop list of semi-finalist and finalist routes;

—Recommend preferred and alternative routes using aforementioned data and expert judgment.

Outline of the EPRI Methodology Used in Other Cases

- *Five-step process:*

  1. *Data collection and digitization*
  2. *Identify macro-corridors (top 3% of routes);*
  3. *Identify routing alternatives*
  4. *Apply the analysis and evaluation portion of the EPRI methodology to the routing alternatives in the macro-corridors;*
  5. *Apply expert judgment to make final selection.*

Extent of EPRI Methodology Used in These Cases

- *Doherty analysis used instead of standard EPRI Methodology*
- *Did not use the macro-corridor portion of EPRI methodology (pursuant to Commission guidance in the Staff Conference and Case No. 2005-00207);*
- *Data collection and digitization;*
- *Applied the analysis and evaluation portion of the EPRI methodology to all 1,203 routes;*
- *Applied the expert judgment portion of the EPRI methodology to the routes remaining after eliminations due to Fort Knox and 125% cost.*

Limitations of Methodology Using Numerous Routes

- *Modified EPRI method is not designed to compare large numbers of routes; this is the reason that EPRI includes the macro-corridor identification as the first step of the EPRI methodology;*
- *Eliminating the macro-corridor analysis introduces challenges:*

  —The normalization process does not have enough granularity to depict accurately the difference between "no constraints", "few constraints" and "many constraints" on a route -- resulting in misleading scoring for some routes;

  —Cost differences are not emphasized properly when comparing large numbers of routes as in this case; i.e. routes that cost far more than others causes those others (for which the costs do not differ very much from one another) to appear to be cost equivalent when in fact they are not.

Commission Staff's 5-Step Route Selection Process

1. *Establish need;*
2. *Identify a universe of routes that will work electrically, including corridors that utilize existing facilities, such as substations, lines and rights-of-way;*
3. *Identify a least cost alternative;*
4. *Consider rate impact, overall and per customer, of routes that are not least cost;*
5. *Analyze the types of considerations in the analysis and evaluation portion of the EPRI methodology.*

How the Companies Followed Commission Staff's 5-Step Route Selection Process

1. *Need identified in Case No. 2005-00142*
2. *Identified 1,203 routes that will work electrically, within an area of inquiry bounded to the east and to the west by routes that utilize 100% existing corridors;*
3. *Identified a least cost alternative;*
4. *Considered rate impact, overall and per customer, of routes that are not least cost;*
5. *Analyzed the types of considerations in the analysis and evaluation portion of the EPRI methodology via Doherty's analysis.*

Challenges Encountered Utilizing the Staff's 5-Step Process

- *Co-location is not always the best way to proceed*

  —Built up areas that encroach on existing right-of-way present challenges to co-location;

  —Outage issues due to multiple circuits in the same area (poor redundancy);

  —Cost issues arising from the need to rebuild;

  —Concern that existing corridors will become "transmission line farms;"

- *Difficulty in balancing cost vs. co-location;*

- *The large universe of routes to be evaluated can be unmanageable.*

Addressing the Issue of Need

- *Confirm that the need for the line has been established:*

  —Commission Order dated September 8, 2005, in Case No. 2005-00142.

  —No changed circumstances since the Commission's finding establishing need.

Physical Inspections of the Area of Inquiry

- *The Companies have inspected the vast majority of the study area, including the proposed routes and the area at large, via walking, driving and/or helicopter inspection;*
- *Made observations to confirm topography and buildings shown on maps, etc.;*
- *Inspections of particular areas, including but not limited to:*

  —Pond on the Cunningham's property;

  —Salt River bridge on Fort Knox;

  —Fort Duffield;

  —Knob Creek Gun Range;

  —Field inspections in response to comments provided by affected property owners

Discussions with Fort Knox

- *The Companies must place facilities in locations to which Fort Knox agrees and that are supported by Fort Knox's environmental review.*
- *Discussions were held with Fort Knox staff for the purpose of identifying alternative routes acceptable to Fort Knox and consistent with environmental and cultural resource laws;*
- *Fort Knox identified its acceptable route across the reservation and sent the Companies a letter describing it.*

Discussions with Other Agencies / Required Permits

- Discussed and Considered Comments from Agencies:
  - Discussions with State Historical Preservation Officer ("SHPO") about NHPA Section 106 compliance for the portion of the line on Fort Knox;
  - Discussions with U.S. Army Corp of Engineers about protection of wetlands – as designed, no permit required;
  - Discussions with U.S. and Kentucky Departments of Fish & Wildlife on endangered or threatened species, and mitigation options to protect the whooping crane at the Cunningham's pond;
- NEPA & NHPA compliance required only for Fort Knox portion of line;
- Kentucky Division of Water requires the submission of a notification form for structures in the flood plain;
- The Companies will obtain the required construction permits from the Jefferson County Metropolitan Sewer District;
- Railroad and highway crossing permits will be needed.

Cost Estimation for the Alternative Routes

- *The Companies used historical labor costs along with recently quoted construction and material costs;*
- *Easements were valued at 100% of PVA per acre valuations;*
- *The Companies used information normally used in making early estimates of construction costs, not final costs;*
- *The early estimates are used uniformly for each cost element so that they are suitable for purposes of comparing the costs.*

Communications with Affected Property Owners

- *Use of property owner input for final proposed route selection*

  —Utilized information obtained from property owners in Case No. 2005-00142 (via public information sessions, public hearings, individual contact, or other);

  —Attempted to communicate with all affected property owners on each route on an individual basis; Company representatives:

  - *Sent letters and maps to all identified affected property owners, advising them of the projects and seeking information about each property that otherwise might not be considered by the Companies in the route selection process;*
  - *Sent comment forms to property owners with existing ROW;*
  - *Telephoned property owners with new ROW to attempt to arrange in-person meetings;*

Communications with Affected Property Owners (cont.)

- *Met in-person with willing property owners to review and discuss issues (e.g. general line placement, right of way clearing, easement acquisition and/or property valuation);*
- *Left a comment form at the property, along with a self-addressed stamped envelope and a business card, in a weather-protected bag, for those property owners with new right of way for whom Company efforts at personal contact did not succeed;*
- *Received written comments from numerous property owners;*

—Evaluated information provided by specific property owners and addressed it accordingly;

—Provided and continue to provide a written response to each property owner from whom the Companies receive comment (written or verbal).

Timetable for the Construction of the Line

- *Environmental and cultural studies are underway and will continue once permissions from property owners have been obtained;*
- *After the CCN has been issued, easement acquisition, right-of-way vegetation removal, final design, material acquisition and construction phases of the project will begin;*
- *Cutting and removal of vegetation will begin in the fall of 2006 where the highest percentage of easements have been obtained (Fort Knox);*
- *Material and labor will be competitively bid;*
- *Construction will begin in the spring of 2007;*
- *The line must be available for testing by 2009 Q3;*
- *Line must be in service by 2010 Q2 when TC2 comes on-line.*

Need for Slight Modifications to the Route Post-CCN

- *The need to make slight changes to transmission line route after construction begins may arise because of:*

  —Constraints not known when the line was designed;

  —Additional requests of landowners;

  —Measures taken to avoid, minimize or mitigate potential impacts that may be identified as a result of environmental or cultural resource reviews and the NHPA, NEPA consultation process for the Fort Knox portion of the line;

- *Making those adjustments without further Commission approval advances administrative efficiency;*

- *Methodology in Case No. 2005-00207 (Centerline may be moved 500 feet within the same property and if landowner agrees in writing) is acceptable with one exception: if landowner does not consent, LG&E/KU would prefer to file a motion in this case rather than filing an entirely new CCN.*

Summary

- *Companies have a Commission-recognized need for the line*
- *Companies followed Commission Staff guidance on the line routing process*
- *Companies undertook extensive analysis of 1,203 possible routes*
- *Companies retained PhotoScience/Linear Projects to assist in data processing and to conduct an independent analysis for identifying reasonable routes*
- *Companies conducted sensitivity studies to compare routes under numerous sets of different modeling assumptions*
- *Companies selected two routes that are reasonable in base case analysis and under sensitivity study scenarios by relying on data and expert judgment*
- *Companies communicated with affected landowners to identify route issues*
- *Companies addressed the challenges of (i) timing of need and (ii) balancing cost with co-location by filing two CCN Applications for two reasonable, mutually-exclusive routes, the preferred of which is $4.2 million lower cost and 56 % co-located (vs. 66 % for Route 2)*

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Question No. 16

Witness: Brandon Grillon

Q-16. Provide the cost-per-mile for the various transmission structure configurations (double circuit steel, single circuit H-frame, etc.) used to generate route costs. Also provide various angle structure costs.

A-16. Please see attached spreadsheet.

345 KV Single Circuit		
Description	**Line Angle**	**Total**
Angle	8 - 26 degrees	$130,904.81
Tangent and Light Angle	0 - 8 degrees	$77,425.18
Angle and DE	26 - 60 degrees	$239,603.31
DE	60 - 90 degrees	$540,281.86

	Total
Cost Per Mile Single Circuit Tower	$720,110.80
Single CKT 0 - 8 degree PI's adder	$0.00
Single CKT 8-26 degree PI's adder	$53,479.63
Single Circuit 26-60 degree PI's adder	$162,178.13
Single Circuit 60-90 degree PI's adder	$462,856.67

Single Circuit 345 KV Single Shaft Steel Poles		
Description	**Line Angle**	**Total**
TANG	0 degrees	$103,284.80
ANG	0 - 45 degrees	$129,892.74
DE	45 - 90 degrees	$180,677.79

	Total
Cost Per Mile Single Circuit SS Steel Pole	$998,959.90
ANG 0 - 45 degree PI's adder	$26,607.94
DE 45 - 90 degree PI's adder	$77,392.99

345 KV Double Circuit		
Description	**Line Angle**	**Total**
Tangent and Light Angle	0 - 3 degrees	$128,848.96
Light Angle	3 - 10 degrees	$164,360.95
Heavy Angle	10 - 30 degrees	$207,320.26
Angle Deadend	30 - 60 degrees	$389,350.84
Deadend	60 - 90 degrees	$552,612.76

	Total
Cost Per Mile Double Circuit	$1,080,077.24
Double Circuit 3 - 10 degree PI's adder	$35,511.99
Double Circuit 10 - 30 degree PI's adder	$78,471.30
Double Circuit 30 - 60 degree PI's adder	$260,501.88
Double Circuit 60 - 90 degree PI's adder	$423,763.80

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
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Question No. 17

Witness: Mark S. Johnson

Q-17. Provide the LGE/KU route decision sheet discussed at the January 11, 2006 interview after adding total new acres and number of parcels.

A-17. The decision sheet as discussed at the January 11, 2006 interview, with total new acres and number of parcels added, is attached.

A revised version of that decision sheet, making corrections to the cost data for Segment 28 and correcting other minor calculation errors on acreage and easement totals is also attached.

Built	Number of Parcels	Total Acres New Easement	Residences within ROW	Proximity to Residences (within 300')	Proposed Developments	Proximity Commercial Buildings(within 300')	Proximity Industrial Buildings(within 300')	School, Church, Cemetery, and Park Parcels Crossed	NRHP Listed Structures and Districts (3000' from edge of R/W)	Natural Forests (Acres)	Stream/River Crossings	Wetland Areas (Acres)	Floodplain Areas (Acres)	Length (Miles)	Percent of Route Rebuilt with Existing T/L*	Percent of Route of Co-located with Existing Utilities*	Percent of Route Co-located with Roads*	Total Project Costs
ROUTE AJU	106	841.94	0	12	1	0	6	0	4	429.8243	43	14.1536	108.7304	41.87	17.05%	38.81%	1.43%	$56,742,835.56
ROUTE AJW	100	752.48	0	13	1	0	6	0	2	402.8789	40	11.9336	104.6107	43.88	29.26%	37.03%	1.37%	$60,973,719.01
ROUTE AI	253	924.36	19	103	0	1	2	1	8	393.4751	29	17.0788	150.0714	48.33	21.10%	53.90%	7.32%	$67,620,413.78
ROUTE AO	275	901.82	17	103	0	1	1	1	8	398.5936	31	19.1998	154.8995	47.4	21.52%	50.51%	1.58%	$67,670,249.65
ROUTE AQ	252	896.24	16	98	0	1	2	1	8	394.3145	30	17.0788	149.1511	47.17	21.62%	49.35%	2.99%	$66,460,150.35
ROUTE AU	156	877.09	2	48	0	1	2	1	8	382.2441	34	12.6188	147.4744	49.02	26.19%	45.57%	4.10%	$67,951,795.62
ROUTE AV	212	966.06	4	85	0	1	2	1	10	391.9934	39	12.6188	149.651	49.49	19.48%	45.14%	4.06%	$67,659,519.77
ROUTE BO	258	926.30	21	108	0	1	2	1	8	393.8845	27	17.0788	150.0714	48.41	21.07%	49.64%	7.31%	$68,381,719.35
ROUTE BU	280	903.76	19	108	0	1	1	1	8	399.003	29	19.1998	154.8995	47.48	21.48%	46.17%	1.58%	$68,432,837.03
ROUTE BW	257	898.18	18	103	0	1	2	1	8	394.7239	28	17.0788	149.1511	47.25	21.59%	44.99%	2.98%	$67,221,671.75
ROUTE CB	217	968.00	6	90	0	1	2	1	10	392.4028	37	12.6188	149.651	49.57	19.45%	40.99%	4.05%	$68,431,420.28
ROUTE HI	262	879.76	17	100	0	1	1	0	9	395.0566	28	20.0906	154.8995	46.49	21.94%	47.15%	0.00%	$66,740,958.63
ROUTE HK	239	874.18	16	95	0	1	2	0	9	390.7775	27	17.9696	149.1511	46.26	22.05%	45.96%	1.43%	$65,530,933.81
ROUTE HM	166	860.61	3	50	0	1	1	0	9	382.9862	32	15.6306	153.2228	48.34	26.56%	43.40%	1.24%	$68,268,199.24
ROUTE HO	143	855.03	2	45	0	1	2	0	9	378.7071	31	13.5096	147.4744	48.11	26.69%	42.24%	2.62%	$66,997,118.55
ROUTE HP	199	944.00	4	82	0	1	2	0	11	388.4564	36	13.5096	149.651	48.58	19.84%	41.83%	2.59%	$66,713,745.26
ROUTE HW	151	844.61	8	54	0	1	2	1	8	320.316	30	12.6188	148.3947	47.68	26.93%	36.91%	10.49%	$67,444,234.85
ROUTE HX	207	933.58	10	91	0	1	2	1	10	330.0653	35	12.6188	150.5713	48.15	20.02%	36.55%	10.38%	$67,158,427.16
ROUTE HY	173	822.06	6	54	0	1	1	1	8	325.4345	32	14.7398	153.2228	46.75	27.47%	33.13%	4.73%	$67,589,568.74
ROUTE IA	150	816.48	5	49	0	1	2	1	8	321.1554	31	12.6188	147.4744	46.52	27.60%	31.88%	6.17%	$66,303,709.82
ROUTE IB	206	905.45	7	86	0	1	2	1	10	330.9047	36	12.6188	149.651	46.99	20.52%	31.56%	6.11%	$66,019,809.78
ROUTE KQ	138	881.94	3	40	0	1	2	0	11	344.1544	33	15.7296	151.5941	43.52	16.41%	34.08%	4.87%	$60,351,127.79
ROUTE KS	155	798.06	4	46	0	1	1	0	9	321.4881	31	15.6306	153.2228	45.76	28.06%	33.85%	3.19%	$65,855,714.43
ROUTE KT	211	887.03	6	83	0	1	1	0	11	331.2374	36	15.6306	155.3994	46.23	20.85%	33.51%	3.16%	$65,579,777.28
ROUTE KU	132	792.48	3	41	0	1	2	0	9	317.209	30	13.5096	147.4744	45.53	28.20%	32.57%	4.66%	$64,568,932.31
ROUTE KV	188	881.45	5	78	0	1	2	0	11	326.9583	35	13.5096	149.651	46	20.96%	32.24%	4.61%	$64,298,997.71
ROUTE KW	145	711.27	3	44	1	1	3	0	9	321.6357	28	14.7398	153.2228	42.18	30.44%	33.52%	1.42%	$62,443,198.76
ROUTE KX	201	800.24	5	81	1	1	3	0	11	331.385	33	14.7398	155.3994	42.65	22.60%	33.15%	1.41%	$62,177,675.02
ROUTE KY	122	705.70	2	39	1	1	4	0	9	317.3566	27	12.6188	147.4744	41.95	30.61%	32.13%	3.00%	$61,124,054.20
ROUTE KZ	178	794.67	4	76	1	1	4	0	11	327.1059	32	12.6188	149.651	42.42	22.73%	31.78%	2.97%	$60,870,261.95
ROUTE LC	128	795.15	2	38	1	1	4	0	11	344.302	30	14.8388	151.5941	39.94	17.88%	33.75%	3.15%	$56,885,427.67
ROUTE YB	191	808.73	7	101	1	1	5	0	9	241.0266	40	12.7354	149.9293	36.56	8.75%	50.44%	5.33%	$59,138,791.31
ROUTE ADE	231	971.15	17	77	0	0	4	1	1	478.9974	42	16.3936	107.2077	50.26	20.29%	57.34%	5.73%	$67,626,968.10
ROUTE ADI	230	943.03	14	72	0	0	4	1	1	479.8368	43	16.3936	106.2874	49.1	20.77%	53.05%	1.53%	$66,471,804.49
ROUTE ADK	134	923.88	0	22	0	0	4	1	1	467.7664	47	11.9336	104.6107	50.95	25.20%	49.28%	2.65%	$67,838,885.05
ROUTE ADL	190	1012.85	2	59	0	0	4	1	3	477.5157	52	11.9336	106.7873	51.42	18.75%	48.83%	2.63%	$67,593,908.51
ROUTE ADU	236	973.09	19	82	0	0	4	1	1	479.4068	40	16.3936	107.2077	50.34	20.26%	53.24%	5.72%	$68,391,779.14
ROUTE ADY	235	944.97	16	77	0	0	4	1	1	480.2462	41	16.3936	106.2874	49.18	20.74%	48.86%	1.53%	$67,236,941.88
ROUTE AGS	217	920.97	14	69	0	0	4	0	2	476.2998	40	17.2844	106.2874	48.19	21.17%	49.87%	0.00%	$65,536,269.28
ROUTE AGU	121	901.82	0	19	0	0	4	0	2	464.2294	44	12.8244	104.6107	50.04	25.66%	46.14%	1.20%	$66,872,240.52
ROUTE AGV	177	990.79	2	56	0	0	4	0	4	473.9787	49	12.8244	106.7873	50.51	19.09%	45.71%	1.19%	$66,639,056.39
ROUTE AGY	129	891.39	6	28	0	0	4	1	1	405.8383	43	11.9336	105.531	49.61	25.88%	41.06%	8.75%	$67,325,163.03
ROUTE AGZ	185	980.36	8	65	0	0	4	1	3	415.5876	48	11.9336	107.7076	50.08	19.25%	40.67%	8.67%	$67,089,556.19
ROUTE AHA	128	863.27	3	23	0	0	4	1	1	406.6777	44	11.9336	104.6107	48.45	26.50%	36.33%	4.56%	$66,185,518.01
ROUTE AIK	110	839.27	1	15	0	0	4	0	2	402.7313	43	12.8244	104.6107	47.46	27.05%	37.08%	3.08%	$64,431,826.31
ROUTE AIL	166	928.24	3	52	0	0	4	0	4	412.4806	48	12.8244	106.7873	47.93	20.11%	36.72%	3.05%	$64,218,425.20
ROUTE AJX	156	841.45	2	50	1	0	6	0	4	412.6282	45	11.9336	106.7873	44.35	21.74%	36.64%	1.35%	$60,786,966.00

	Number of Parcels	Total Acres New Easement	Residences within ROW	Proximity to Residences (within 300')	Proposed Developments	Proximity Commercial Buildings (within 300')	Proximity Industrial Buildings (within 300')	School, Church, Cemetery, and Park Parcels Crossed	NRHP Listed Structures and Districts (3000' from edge of R/W)	Natural Forests (Acres)	Stream/River Crossings	Wetland Areas (Acres)	Floodplain Areas (Acres)	Length (Miles)	Percent of Route Rebuilt with Existing T/L*	Percent of Route of Co-located with Existing Utilities*	Percent of Route Co-located with Roads*	Total Project Costs
ROUTE ADE	237	971.2	17	77	0	0	4	1	1	478.9974	42	16.3936	107.2077	50.26	20.29%	57.34%	5.73%	$67,626,968.10
ROUTE ADI	236	943	14	72	0	0	4	1	1	479.8368	43	16.3936	106.2874	49.1	20.77%	53.05%	1.53%	$66,471,804.49
ROUTE ADK	140	923.9	0	22	0	0	4	1	1	467.7664	47	11.9336	104.6107	50.95	25.20%	49.28%	2.65%	$67,838,885.05
ROUTE ADL	197	1012.8	2	59	0	0	4	1	3	477.5157	52	11.9336	106.7873	51.42	18.75%	48.83%	2.63%	$67,593,908.51
ROUTE ADU	241	973.1	19	82	0	0	4	1	1	479.4068	40	16.3936	107.2077	50.34	20.26%	53.24%	5.72%	$68,391,779.14
ROUTE ADY	241	945	16	77	0	0	4	1	1	480.2462	41	16.3936	106.2874	49.18	20.74%	48.86%	1.53%	$67,236,941.88
ROUTE AGS	224	921	14	69	0	0	4	0	2	476.2998	40	17.2844	106.2874	48.19	21.17%	49.87%	0.00%	$65,536,269.28
ROUTE AGU	128	901.8	0	19	0	0	4	0	2	464.2294	44	12.8244	104.6107	50.04	25.66%	46.14%	1.20%	$66,872,240.52
ROUTE AGV	185	990.8	2	56	0	0	4	0	4	473.9787	49	12.8244	106.7873	50.51	19.09%	45.71%	1.19%	$66,639,056.39
ROUTE AGY	133	891.4	6	28	0	0	4	1	1	405.8383	43	11.9336	105.531	49.61	25.88%	41.06%	8.75%	$67,325,163.03
ROUTE AGZ	190	980.4	8	65	0	0	4	1	3	415.5876	48	11.9336	107.7076	50.08	19.25%	40.67%	8.67%	$67,089,556.19
ROUTE AHA	132	863.3	3	23	0	0	4	1	1	406.6777	44	11.9336	104.6107	48.45	26.50%	36.33%	4.56%	$66,185,518.01
ROUTE AHB	189	952.2	5	60	0	0	4	1	3	416.427	49	11.9336	106.7873	48.92	19.71%	35.98%	4.52%	$65,953,752.86
ROUTE AI	259	924.4	19	103	0	1	2	1	8	393.4751	29	17.0788	150.0714	48.33	21.10%	53.90%	7.32%	$67,620,413.78
ROUTE AIK	115	839.3	1	15	0	0	4	0	2	402.7313	43	12.8244	104.6107	47.46	27.05%	37.08%	3.08%	$64,431,826.31
ROUTE AIL	172	928.2	3	52	0	0	4	0	4	412.4806	48	12.8244	106.7873	47.93	20.11%	36.72%	3.05%	$64,218,425.20
ROUTE AJU	111	844.9	0	12	1	0	6	0	4	429.8243	43	14.1536	108.7304	42.03	17.05%	38.81%	1.43%	$57,744,737.74
ROUTE AJW	104	752.5	0	13	1	0	6	0	2	402.8789	40	11.9336	104.6107	43.88	29.26%	37.03%	1.37%	$60,973,719.01
ROUTE AJX	161	841.5	2	50	1	0	6	0	4	412.6282	45	11.9336	106.7873	44.35	21.74%	36.64%	1.35%	$60,786,966.00
ROUTE AO	280	901.8	17	103	0	1	1	1	8	398.5936	31	19.1998	154.8995	47.4	21.52%	50.51%	1.58%	$67,670,249.65
ROUTE AU	162	877.1	2	48	0	1	2	1	8	382.2441	34	12.6188	147.4744	49.02	26.19%	45.57%	4.10%	$67,951,795.62
ROUTE AV	219	966.1	4	85	0	1	2	1	10	391.9934	39	12.6188	149.651	49.49	19.48%	45.14%	4.06%	$67,659,519.77
ROUTE BO	263	926.3	21	108	0	1	2	1	8	393.8845	27	17.0788	150.0714	48.41	21.07%	49.64%	7.31%	$68,381,719.35
ROUTE BU	285	903.8	19	108	0	1	1	1	8	399.003	29	19.1998	154.8995	47.48	21.48%	46.17%	1.58%	$68,432,837.03
ROUTE BW	263	898.2	18	103	0	1	2	1	8	394.7239	28	17.0788	149.1511	47.25	21.59%	44.99%	2.98%	$67,221,671.75
ROUTE CB	225	971	6	90	0	1	2	1	10	392.4028	37	12.6188	149.651	49.57	19.45%	40.99%	4.05%	$68,431,420.28
ROUTE HI	268	879.8	17	100	0	1	1	0	9	395.0566	28	20.0906	154.8995	46.49	21.94%	47.15%	0.00%	$66,740,958.63
ROUTE HK	246	874.2	16	95	0	1	2	0	9	390.7775	27	17.9696	149.1511	46.26	22.05%	45.96%	1.43%	$65,530,933.81
ROUTE HM	172	860.6	3	50	0	1	1	0	9	382.9862	32	15.6306	153.2228	48.34	26.56%	43.40%	1.24%	$68,268,199.24
ROUTE HO	150	855	2	45	0	1	2	0	9	378.7071	31	13.5096	147.4744	48.11	26.69%	42.24%	2.62%	$66,997,118.55
ROUTE HP	207	944	4	82	0	1	2	0	11	388.4564	36	13.5096	149.651	48.58	19.84%	41.83%	2.59%	$66,713,745.26
ROUTE HW	155	844.6	8	54	0	1	2	1	8	320.316	30	12.6188	148.3947	47.68	26.93%	36.91%	10.49%	$67,444,234.85
ROUTE HX	212	933.6	10	91	0	1	2	1	10	330.0653	35	12.6188	150.5713	48.15	20.02%	36.55%	10.38%	$67,158,427.16
ROUTE HY	176	822.1	6	54	0	1	1	1	8	325.4345	32	14.7398	153.2228	46.75	27.47%	33.13%	4.73%	$67,589,568.74
ROUTE IA	154	816.5	5	49	0	1	2	1	8	321.1554	31	12.6188	147.4744	46.52	27.60%	31.88%	6.17%	$66,303,709.82
ROUTE IB	211	905.5	7	86	0	1	2	1	10	330.9047	36	12.6188	149.651	46.99	20.52%	31.56%	6.11%	$66,019,809.78
ROUTE KQ	144	884.9	3	40	0	1	2	0	11	344.1544	33	15.7296	151.5941	43.68	16.41%	34.08%	4.87%	$61,353,029.57
ROUTE KS	159	798.1	4	46	0	1	1	0	9	321.4881	31	15.6306	153.2228	45.76	28.06%	33.85%	3.19%	$65,855,714.43
ROUTE KT	216	887	6	83	0	1	1	0	11	331.2374	36	15.6306	155.3994	46.23	20.85%	33.51%	3.16%	$65,579,777.28
ROUTE KU	137	792.5	3	41	0	1	2	0	9	317.209	30	13.5096	147.4744	45.53	28.20%	32.57%	4.66%	$64,568,932.31
ROUTE KV	194	881.5	5	78	0	1	2	0	11	326.9583	35	13.5096	149.651	46	20.96%	32.24%	4.61%	$64,298,997.71
ROUTE KW	148	711.3	3	44	1	1	3	0	9	321.6357	28	14.7398	153.2228	42.18	30.44%	33.52%	1.42%	$62,443,198.76
ROUTE KX	205	800.2	5	81	1	1	3	0	11	331.385	33	14.7398	155.3994	42.65	22.60%	33.15%	1.41%	$62,177,675.02
ROUTE KY	126	705.7	2	39	1	1	4	0	9	317.3566	27	12.6188	147.4744	41.95	30.61%	32.13%	3.00%	$61,124,054.20
ROUTE KZ	183	794.7	4	76	1	1	4	0	11	327.1059	32	12.6188	149.651	42.42	22.73%	31.78%	2.97%	$60,870,261.95
ROUTE LC	133	798.2	2	38	1	1	4	0	11	344.302	30	14.8388	151.5941	40.1	17.88%	33.75%	3.15%	$57,887,329.45
ROUTE YB	197	808.7	7	101	1	1	5	0	9	241.0266	40	12.7354	149.9293	36.56	8.75%	50.44%	5.33%	$59,138,791.31

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 18

Witness: Mark S. Johnson

Q-18. Refer to MSJ-2. Explain why Route AJU is the preferred route when other routes, such as AJW, KY, KU, etc., appear to score better on a composite basis in most of the emphasis categories.

A-18. Route AJU was selected as the preferred route from an evaluation of 1,203 electrically feasible route alternatives. Cost estimates, percent collocation and scoring using the EPRI evaluation and analysis (natural, built, engineering and simple composite) tool was determined for each of the 1,203 routes. The 1,203 routes were pared down to 700 routes by eliminating routes which present land use limitations on the Fort Knox reservation and routes whose cost equal or exceed 125% of the least cost route alternative. The EPRI evaluation and analysis tool used to score all routes was then used to determine the fifty best scoring routes. When evaluating these fifty best scoring routes, factors such as residences in right of way, proximity to residences/commercial/industrial buildings, NRHP listed structures and districts; percent collocation, line length, parcels impacted and total project cost were considered to choose a preferred route. Each of the criteria was considered in the context of the overall constructability of the route. Reasonable mitigation measures against the criteria were also considered.

Upon a closer examination and using expert judgment, it became apparent that routes scoring better than Route AJU produced less than desirable results compared to Route AJU in one or more of the following criteria: higher number of residences within right of way, total project cost, NRHP listed structures and districts impacts, line length and/or collocation. Specifically, Route AJW, which is substantially similar to Route AJU since it follows the same path for most of the route, is less desirable primarily due to line length (2 miles longer) and cost ($4.2M more for an additional 11% collocation with existing facilities that will require a rebuild with larger, more intrusive structures). Route KY is less desirable due to parcels impacted (16 additional), residences in right of way (2, where AJU impacts zero residences), NRHP listed structures and districts (5 additional, including historic West Point and Fort

Duffield (sp?)), and cost ($4.3M more for an additional 6% collocation). Route KU is less desirable due to parcels impacted (26 additional), residences in the right of way (3, compared with AJU's zero impact), NRHP listed structures and districts (5 additional), line length (4 miles longer), and cost ($7.8M more for an additional 4% collocation). While the EPRI evaluation and analysis tool did not identify AJU as the best scoring of the fifty routes, it is clear that AJU is in fact consistently among the very best scoring routes using a variety of perspectives. Further, upon application of expert engineering judgment and balancing the wide array of diverse considerations, AJU stands out as an excellent balance of cost, impact on built and natural environments and collocation.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 19

Witness: Brandon Grillon

Q-19. Provide a list of the right-of-way widths that LGE/KU would desire for various voltage and transmission tower configurations (i.e., 200 feet for 345 kV H-frame construction).

A-19. Below is a list of typical right of way widths that would be requested from property owners for various voltages.

69 KV – 100'
138 KV – 150'
161 KV – 150'
345 KV – 200'
500 KV – 250'

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 20

Witness: Clay M. Doherty

Q-20. When did LP/PS become aware of the LGE/KU preferred and alternate routes?

A-20. Linear Projects became aware of the LG&E/KU proposed routes on or about November 18, 2005. Linear Projects was contacted prior to LGE/KU's decision and asked whether anything in the data might lead one to conclude that Routes AJU and AJW were not reasonable routes. Linear Projects had examined the Analysis and Evaluation results at this point, and had not seen anything to suggest that Routes AJU and AJW were not reasonable routes.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 21

Witness: Clay M. Doherty

Q-21. Provide a list of the "top five" routes selected and discussed by LP/PS on January 13, 2006. Apply to this list the methodology that LP/PS used to flag undesirable routes in the semi-final and final stages of its analysis as a whole with the calculation of thresholds modified by adding/subtracting the standard deviation to the mean, including percent collocation with roads.

A-21. Please see attached spreadsheet "Response to Liberty Consulting Group's Request for Information Dated January 13, 2006, Question No. 23."

Please note that the requested modification could not be performed on the first three columns in the spreadsheet (namely Residences within ROW, Proximity to Residences, and School Church Cemetery and Park Parcels Crossed), because subtracting the standard deviation from the mean yields a negative number in the row labeled "Threshold 1". For these columns, the average is still used.

Original First Cut Screening Against All Three Criteria				
	Built	Natural	Engineering	Composite
ROUTE ACQ			X	1
ROUTE ACU		X	X	2
ROUTE ADC			X	1
ROUTE ADS			X	1
ROUTE AGW			X	1
ROUTE AJU				0
ROUTE AJW				0
ROUTE AJX		X		1
ROUTE ALE			X	1
ROUTE AME			X	1
ROUTE ANE		X	X	2
ROUTE AQL				0
ROUTE ATZ	X	X	X	3
ROUTE AUD	X	X	X	3
ROUTE AUL	X	X	X	3
ROUTE AUP	X	X	X	3
ROUTE AUT	X	X	X	3
ROUTE AUX	X	X	X	3
ROUTE AVC	X	X	X	3
ROUTE AVD	X	X	X	3
ROUTE AVE		X	X	2
ROUTE AVF	X	X	X	3
ROUTE BK		X	X	2
ROUTE E		X	X	2
ROUTE G		X	X	2
ROUTE HS			X	1
ROUTE KW				0
ROUTE KY				0
ROUTE KZ				0
ROUTE QA	X		X	2
ROUTE QE	X		X	2
ROUTE QG		X		1
ROUTE QI		X		1
ROUTE SE	X		X	2
ROUTE SI		X		1
ROUTE YB				0
ROUTE ADG		X	X	2
ROUTE ADK		X	X	2
ROUTE AGU		X	X	2
ROUTE AGY			X	1
ROUTE AHA		X	X	2
ROUTE AIK			X	1
ROUTE AM	X	X	X	3
ROUTE BS	X	X	X	3
ROUTE HO		X	X	2
ROUTE HW	X		X	2
ROUTE IA	X		X	2
ROUTE KS			X	1
ROUTE KU			X	1

X = poor rating
Best Routes

11	threes
16	twos
16	ones
6	nulls
49	

Cattana 01122006 Screening Against All Three Criteria				
	Built	Natural	Engineering	Composite
ROUTE ACQ		X	X	2
ROUTE ACU		X	X	2
ROUTE ADC		X	X	2
ROUTE ADS		X	X	2
ROUTE AGW		X	X	2
ROUTE AJU		X	X	2
ROUTE AJW		X		1
ROUTE AJX		X	X	2
ROUTE ALE		X	X	2
ROUTE AME		X	X	2
ROUTE ANE		X	X	2
ROUTE AQL		X		1
ROUTE ATZ	X		X	2
ROUTE AUD	X		X	2
ROUTE AUL	X		X	2
ROUTE AUP	X		X	2
ROUTE AUT	X		X	2
ROUTE AUX	X		X	2
ROUTE AVC	X		X	2
ROUTE AVD	X		X	2
ROUTE AVE	X		X	2
ROUTE AVF	X		X	2
ROUTE BK			X	1
ROUTE E			X	1
ROUTE G			X	1
ROUTE HS			X	1
ROUTE KW			X	1
ROUTE KY				**0**
ROUTE KZ		X	X	2
ROUTE QA	X		X	2
ROUTE QE	X		X	2
ROUTE QG			X	1
ROUTE QI			X	1
ROUTE SE	X		X	2
ROUTE SI			X	1
ROUTE YB				**0**
ROUTE ADG		X	X	2
ROUTE ADK		X	X	2
ROUTE AGU		X	X	2
ROUTE AGY		X	X	2
ROUTE AHA		X	X	2
ROUTE AIK		X	X	2
ROUTE AM	X	X	X	3
ROUTE BS	X	X	X	3
ROUTE HO		X	X	2
ROUTE HW	X	X	X	3
ROUTE IA	X	X	X	3
ROUTE KS		X	X	2
ROUTE KU		X	X	2

4	threes
33	twos
10	ones
2	nulls
49	

Attachment to Question No. 21
Page 1 of 2
Doherty

	Residences within ROW	Proximity to Residences (within 300')	School, Church, Cemetery, and Park Parcels Crossed	NRHP Listed Structures and Districts (3000' from edge of R/W)	Natural	Natural Forests (Acres)	Stream/River Crossings	Wetland Areas (Acres)	Floodplain Areas (Acres)	Engineering	Length (Miles)	Percent of Route Rebuilt with Existing T/L	Percent of Route of Co-located with Existing Utilities	Percent Rebuild/Collocate with utilities	Percent of Route of Co-located with Roads	Total Project Costs	Percent Over Least Cost Route (AJW)	Estimated No. of Parcels	Approx. Acres of New Easement
ROUTE ACQ	2	23	0	1	**ROUTE ACQ**	**445.50**	**40**	**12.15**	**103.14**	**ROUTE ACQ**	**56.52**	40.69%	57.09%	97.79%	1.06%	**$74,588,719**	**36.2%**	**116**	**812.61**
ROUTE ACU	2	21	0	1	**ROUTE ACU**	**523.07**	**46**	**12.15**	**103.14**	**ROUTE ACU**	**55.53**	35.15%	51.85%	87.00%	1.08%	**$73,144,888**	**33.6%**	**126**	**872.97**
ROUTE ADC	0	17	0	1	**ROUTE ADC**	**458.70**	**42**	**11.93**	**103.14**	**ROUTE ADC**	**54.05**	36.11%	46.46%	82.57%	1.11%	**$71,488,948**	**30.5%**	**116**	**837.09**
ROUTE ADS	2	22	0	1	**ROUTE ADS**	**459.11**	**40**	**11.93**	**103.14**	**ROUTE ADS**	**54.13**	36.06%	42.66%	78.72%	1.11%	**$72,272,345**	**32.0%**	**121**	**839.03**
ROUTE AGW	3	18	0	1	**ROUTE AGW**	**397.61**	**39**	**11.93**	**103.14**	**ROUTE AGW**	**51.55**	37.87%	34.14%	72.01%	2.83%	**$69,836,908**	**27.5%**	**108**	**776.48**
ROUTE AJU	0	12	0	**4**	**ROUTE AJU**	**429.82**	**43**	**14.15**	**108.73**	**ROUTE AJU**	**42.03**	17.05%	38.81%	55.86%	1.43%	$57,744,737	5.4%	**110**	**841.94**
ROUTE AJW	0	13	0	**2**	**ROUTE AJW**	**402.88**	**40**	**11.93**	**104.61**	ROUTE AJW	**43.88**	29.26%	37.03%	66.29%	1.37%	$60,973,719	11.3%	**104**	752.48
ROUTE AJX	2	50	0	**4**	**ROUTE AJX**	**412.63**	**45**	**11.93**	**106.79**	**ROUTE AJX**	**44.35**	21.74%	36.64%	58.38%	1.35%	$60,786,966	11.0%	**161**	**841.45**
ROUTE ALE	10	75	0	**3**	**ROUTE ALE**	**327.92**	**57**	**12.44**	**106.79**	**ROUTE ALE**	40.34	10.29%	44.92%	55.21%	3.92%	**$63,018,945**	15.1%	**198**	**877.33**
ROUTE AME	9	71	0	**3**	**ROUTE AME**	**328.06**	**57**	**12.81**	**106.79**	**ROUTE AME**	**40.87**	10.15%	44.73%	54.88%	3.87%	**$66,172,832**	20.8%	**200**	**890.18**
ROUTE ANE	7	64	0	**3**	**ROUTE ANE**	**333.70**	**57**	**12.75**	**106.79**	**ROUTE ANE**	40.41	7.92%	44.32%	52.24%	5.62%	**$64,056,129**	17.0%	**180**	**902.06**
ROUTE AQL	5	75	0	**2**	**ROUTE AQL**	**326.55**	**53**	**12.05**	**107.07**	ROUTE AQL	38.49	8.31%	55.11%	63.42%	3.35%	$59,063,247	7.8%	**175**	**855.52**
ROUTE ATZ	**98**	**531**	**4**	0	ROUTE ATZ	**476.42**	**65**	2.94	**289.89**	**ROUTE ATZ**	**44.01**	0.00%	76.98%	76.98%	9.75%	**$78,488,555**	**43.3%**	**739**	**1066.91**
ROUTE AUD	**98**	**538**	**4**	0	ROUTE AUD	**492.83**	**61**	2.79	**246.37**	**ROUTE AUD**	**44.60**	0.00%	83.50%	83.50%	9.62%	**$80,545,031**	**47.1%**	**751**	**1081.21**
ROUTE AUL	**155**	**676**	**2**	0	ROUTE AUL	**452.51**	**60**	3.14	**246.00**	**ROUTE AUL**	40.72	0.00%	93.39%	93.39%	1.13%	**$75,661,706**	**38.2%**	**681**	**987.15**
ROUTE AUP	**34**	**144**	**1**	**8**	ROUTE AUP	**540.36**	**74**	2.97	**162.70**	**ROUTE AUP**	**45.70**	0.00%	50.11%	50.11%	33.79%	**$65,275,814**	19.2%	**398**	**1107.88**
ROUTE AUT	**32**	**147**	**1**	**8**	ROUTE AUT	**561.06**	**72**	2.86	**155.58**	**ROUTE AUT**	**46.07**	0.00%	42.74%	42.74%	33.51%	**$68,433,328**	24.96%	**406**	**1116.85**
ROUTE AUX	**82**	**284**	**1**	**7**	ROUTE AUX	**507.52**	**75**	3.25	**149.76**	**ROUTE AUX**	**46.78**	0.00%	73.22%	73.22%	11.05%	**$67,137,000**	22.6%	**510**	**1134.06**
ROUTE AVC	**36**	**199**	0	1	ROUTE AVC	**515.55**	**80**	3.25	**151.80**	**ROUTE AVC**	**46.58**	0.00%	81.67%	81.67%	0.00%	$60,685,362	10.8%	**398**	**1129.21**
ROUTE AVD	11	**165**	0	1	ROUTE AVD	**563.22**	**83**	3.15	**148.90**	**ROUTE AVD**	**48.06**	0.00%	56.26%	56.26%	1.08%	**$69,636,782**	**27.2%**	**368**	**1165.09**
ROUTE AVE	18	**135**	0	**4**	ROUTE AVE	**562.59**	**93**	6.07	**159.12**	**ROUTE AVE**	**54.39**	0.00%	74.54%	74.54%	0.96%	**$73,856,378**	**34.9%**	**397**	**1318.55**
ROUTE AVF	**35**	**152**	0	**4**	ROUTE AVF	**512.19**	**88**	6.17	**162.02**	**ROUTE AVF**	**53.43**	0.00%	91.13%	91.13%	0.00%	**$66,271,710**	21.0%	**405**	**1295.27**
ROUTE BK	4	48	0	**8**	ROUTE BK	**373.59**	27	**12.62**	**146.00**	**ROUTE BK**	**52.20**	37.39%	38.93%	76.32%	2.41%	**$72,402,291**	**32.2%**	**143**	**792.24**
ROUTE E	5	54	0	**8**	ROUTE E	**364.26**	28	**14.95**	**151.75**	**ROUTE E**	**54.82**	41.96%	55.02%	96.97%	1.09%	**$76,022,034**	**38.8%**	**160**	**771.39**
ROUTE G	4	49	0	**8**	ROUTE G	**359.98**	27	**12.83**	**146.00**	**ROUTE G**	**54.59**	42.13%	54.04%	96.17%	2.31%	**$74,724,438**	**36.4%**	**138**	**765.82**
ROUTE HS	5	44	0	**8**	ROUTE HS	**312.09**	26	**12.62**	**146.00**	**ROUTE HS**	**49.62**	39.34%	29.89%	69.23%	4.27%	**$69,981,206**	**27.8%**	**131**	729.70
ROUTE KW	3	44	0	**9**	ROUTE KW	**321.64**	28	**14.74**	**153.22**	**ROUTE KW**	**42.18**	30.44%	33.52%	63.96%	1.42%	**$62,443,199**	14.0%	**148**	711.27
ROUTE KY	2	39	0	**9**	**ROUTE KY**	**317.36**	27	**12.62**	**147.47**	**ROUTE KY**	**41.95**	30.61%	32.13%	62.74%	3.00%	$61,124,054	11.6%	**126**	705.70
ROUTE KZ	4	76	0	**11**	**ROUTE KZ**	**327.11**	32	**12.62**	**149.65**	**ROUTE KZ**	**42.42**	22.73%	31.78%	54.50%	2.97%	$60,870,262	11.1%	**183**	**794.67**
ROUTE QA	**41**	**156**	**2**	**10**	ROUTE QA	240.94	**39**	**12.78**	**150.03**	**ROUTE QA**	38.39	10.81%	36.08%	46.89%	10.99%	**$66,522,120**	21.5%	**279**	**830.06**
ROUTE QE	**49**	**207**	**2**	**10**	ROUTE QE	237.45	**37**	**12.62**	**148.59**	**ROUTE QE**	37.83	10.97%	36.61%	47.58%	16.18%	**$66,515,994**	21.5%	**346**	**816.48**
ROUTE QG	13	106	0	**10**	ROUTE QG	246.68	**45**	**15.24**	**155.41**	**ROUTE QG**	38.64	10.74%	41.43%	52.17%	4.09%	**$64,376,228**	17.6%	**242**	**836.12**
ROUTE QI	12	101	0	**10**	ROUTE QI	242.40	**44**	**13.12**	**149.66**	**ROUTE QI**	38.41	10.80%	39.96%	50.77%	5.83%	**$63,067,687**	15.2%	**220**	**830.55**
ROUTE SE	**48**	**203**	**2**	**10**	ROUTE SE	237.58	**37**	**12.99**	**148.59**	**ROUTE SE**	38.36	10.82%	36.52%	47.34%	15.95%	**$69,649,272**	**27.2%**	**348**	**829.33**
ROUTE SI	11	97	0	**10**	ROUTE SI	242.53	**44**	**13.49**	**149.66**	ROUTE SI	38.94	10.66%	39.83%	50.49%	5.75%	**$66,219,303**	20.9%	**222**	**843.39**
ROUTE YB	7	101	0	**9**	**ROUTE YB**	241.03	**40**	**12.74**	**149.93**	**ROUTE YB**	36.56	8.75%	50.44%	59.19%	5.33%	$59,138,791	8.0%	**197**	**808.73**
ROUTE ADG	3	27	**1**	1	**ROUTE ADG**	**466.93**	**46**	**11.93**	**105.53**	**ROUTE ADG**	**52.11**	24.64%	53.50%	78.14%	6.68%	**$68,983,012**	**26.0%**	**141**	**952.0**
ROUTE ADK	0	22	**1**	1	**ROUTE ADK**	**467.77**	**47**	**11.93**	**104.61**	**ROUTE ADK**	**50.95**	25.20%	49.28%	74.48%	2.65%	**$67,838,885**	23.9%	**140**	**923.9**
ROUTE AGU	0	19	0	**2**	**ROUTE AGU**	**464.23**	**44**	**12.82**	**104.61**	**ROUTE AGU**	**50.04**	25.66%	46.14%	71.80%	1.20%	**$66,872,241**	22.1%	**128**	**901.8**
ROUTE AGY	6	28	**1**	1	**ROUTE AGY**	**405.84**	**43**	**11.93**	**105.53**	**ROUTE AGY**	**49.61**	25.88%	41.06%	66.94%	8.75%	**$67,325,163**	22.9%	**133**	**891.4**
ROUTE AHA	3	23	**1**	1	**ROUTE AHA**	**406.68**	**44**	**11.93**	**104.61**	**ROUTE AHA**	**48.45**	26.50%	36.33%	62.83%	4.56%	**$66,185,518**	20.9%	**132**	**863.3**
ROUTE AIK	1	15	0	**2**	**ROUTE AIK**	**402.73**	**43**	**12.82**	**104.61**	**ROUTE AIK**	**47.46**	27.05%	37.08%	64.14%	3.08%	**$64,431,826**	17.7%	**115**	**839.3**
ROUTE AM	5	53	**1**	**8**	**ROUTE AM**	**381.40**	**33**	**12.62**	**148.39**	**ROUTE AM**	**50.18**	25.59%	50.04%	75.63%	8.25%	**$69,096,945**	**26.2%**	**163**	**905.2**
ROUTE BS	7	58	**1**	**8**	**ROUTE BS**	**381.81**	**31**	**12.62**	**148.39**	**ROUTE BS**	**50.26**	25.55%	45.94%	71.49%	8.24%	**$69,870,924**	**27.6%**	**167**	**907.2**
ROUTE HO	2	45	0	**9**	**ROUTE HO**	**378.71**	**31**	**13.51**	**147.47**	**ROUTE HO**	**48.11**	26.69%	42.24%	68.93%	2.62%	**$66,997,119**	22.3%	**150**	**855.0**
ROUTE HW	8	54	**1**	**8**	**ROUTE HW**	**320.32**	**30**	**12.62**	**148.39**	**ROUTE HW**	**47.68**	26.93%	36.91%	63.84%	10.49%	**$67,444,235**	23.2%	**155**	**844.6**
ROUTE IA	5	49	**1**	**8**	**ROUTE IA**	**321.16**	**31**	**12.62**	**147.47**	**ROUTE IA**	**46.52**	27.60%	31.88%	59.48%	6.17%	**$66,303,710**	21.1%	**154**	**816.5**
ROUTE KS	4	46	0	**9**	**ROUTE KS**	**321.49**	**31**	**15.63**	**153.22**	**ROUTE KS**	**45.76**	28.06%	33.85%	61.91%	3.19%	**$65,855,714**	20.3%	**159**	**798.1**
ROUTE KU	3	41	0	**9**	**ROUTE KU**	**317.21**	**30**	**13.51**	**147.47**	**ROUTE KU**	**45.53**	28.20%	32.57%	60.77%	4.66%	**$64,568,932**	17.9%	**137**	**792.5**
AVERAGE	18.3	106.9	0.6	5.2	AVERAGE	390.4	46.4	11.0	140.8	AVERAGE	46.3	19.44%	47.97%	67.40%	5.74%	$67,427,983		235.2	895.1
MINIMUM	0	12	0	0	MINIMUM	237	26	3	103	MINIMUM	37	0.00%	29.89%	42.74%	0.00%	$57,744,737		104	706
MAXIMUM	155	676	4	11	MAXIMUM	563	93	16	290	MAXIMUM	57	42.13%	93.39%	97.79%	33.79%	$80,545,031		751	1319
STD DEV	30.7	136.6	0.9	3.7	STD DEV	94.81	17.1	3.83	37.99	STD DEV	5.6	13.64%	15.87%	14.20%	6.91%	$5,106,674		160.5	140.6
Threshhold 1	-12.4	-29.7	-0.4	**1.5**	Threshhold 1	**295.62**	**29.3**	**7.13**	**102.78**	Threshhold 1	**40.77**	**33.07%**	**63.83%**	**81.60%**	-1.17%	**$62,321,308**	25%	**74.7**	**754.5**
Threshhold 2	**18.3**	**106.9**	**0.6**	---	Threshhold 2	---	---	---	---	Threshhold 2	---	---	---	---	**5.74%**	---		---	---
	^	^											(1) over 25% cost of least cost practicable route						
	either		or both schools & hist			all natural have either 3 or 4 marks - the threes pass							(2) cost plus length, parcels, or acres						
													(3) length, parcels, and acres						

Corrected for Segment 28
February 13, 2006

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 22

Witness: Michael G. Toll

Q-22. Do any major transmission projects in the LGE/KU 10-year expansion plan present opportunities for collocation of the routes considered in this application? If yes, describe in detail.

A-22. No.

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

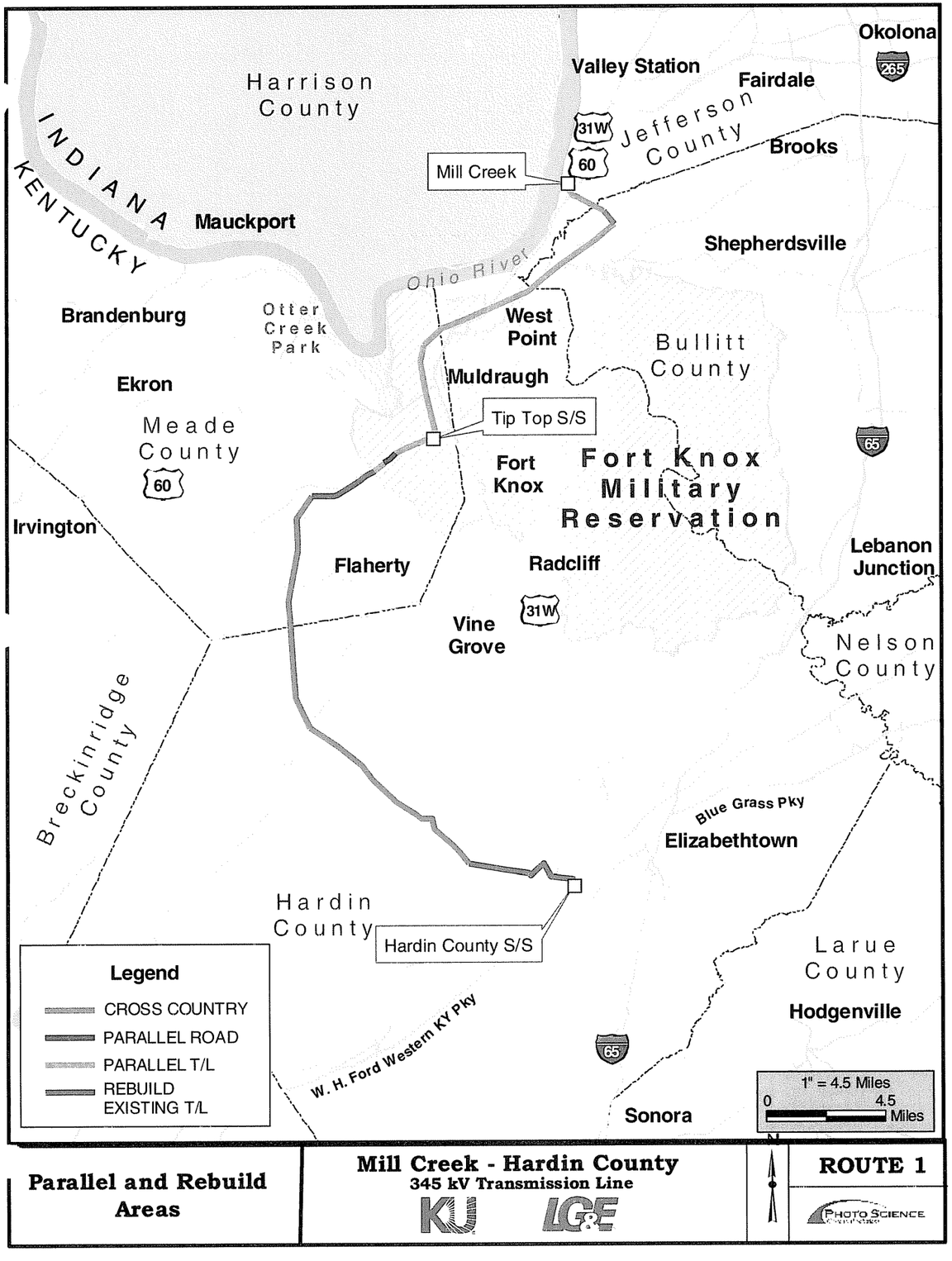
Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

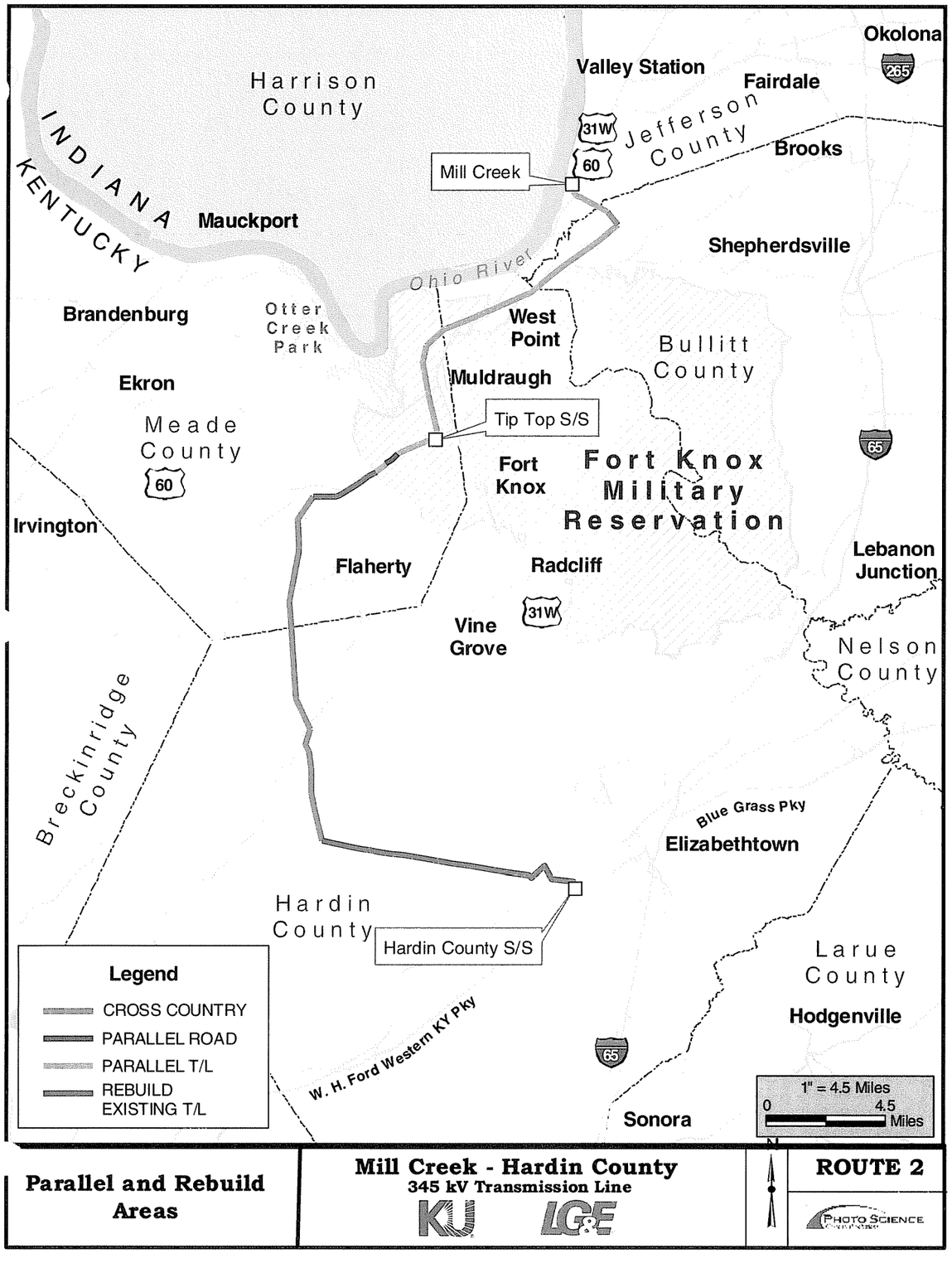
Question No. 23

Witness: Brandon Grillon

Q-23. State which sections of Route #1 and Route #2 represent collocation.

A-23. Please see attached.


Harrison County
INDIANA
KENTUCKY
Mauckport
Valley Station
Fairdale
Okolona
265
Jefferson County
31W
60
Mill Creek
Brooks
Shepherdsville
Ohio River
Brandenburg
Otter Creek Park
West Point
Bullitt County
Muldraugh
Ekron
Tip Top S/S
Meade County
60
65
Fort Knox
Fort Knox Military Reservation
Irvington
Flaherty
Radcliff
Lebanon Junction
31W
Vine Grove
Nelson County
Breckinridge County
Blue Grass Pky
Elizabethtown
Hardin County
Hardin County S/S
Larue County
Hodgenville
W. H. Ford Western KY Pky
65
Sonora
1" = 4.5 Miles
0
4.5
Miles
N
Legend
CROSS COUNTRY
PARALLEL ROAD
PARALLEL T/L
REBUILD EXISTING T/L
Parallel and Rebuild Areas
Mill Creek - Hardin County
345 kV Transmission Line
KU
LG&E
ROUTE 1
Photo Science


Harrison County
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Brooks
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Muldraugh
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Fort Knox Military Reservation
Irvington
Flaherty
Radcliff
Lebanon Junction
Vine Grove
Nelson County
Breckinridge County
Blue Grass Pky
Elizabethtown
Hardin County
Hardin County S/S
Larue County
Hodgenville
W. H. Ford Western KY Pky
Sonora
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CROSS COUNTRY
PARALLEL ROAD
PARALLEL T/L
REBUILD EXISTING T/L
1" = 4.5 Miles
0 4.5 Miles
Parallel and Rebuild Areas
Mill Creek - Hardin County
345 kV Transmission Line
ROUTE 2
PHOTO SCIENCE

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 24

Witness: Brandon Grillon

Q-24. Provide a map that shows representative routes along both east and west corridors that are 100 percent collocated, 90 percent collocated, 80 percent collocated, and 70 percent collocated, and state the associated costs.

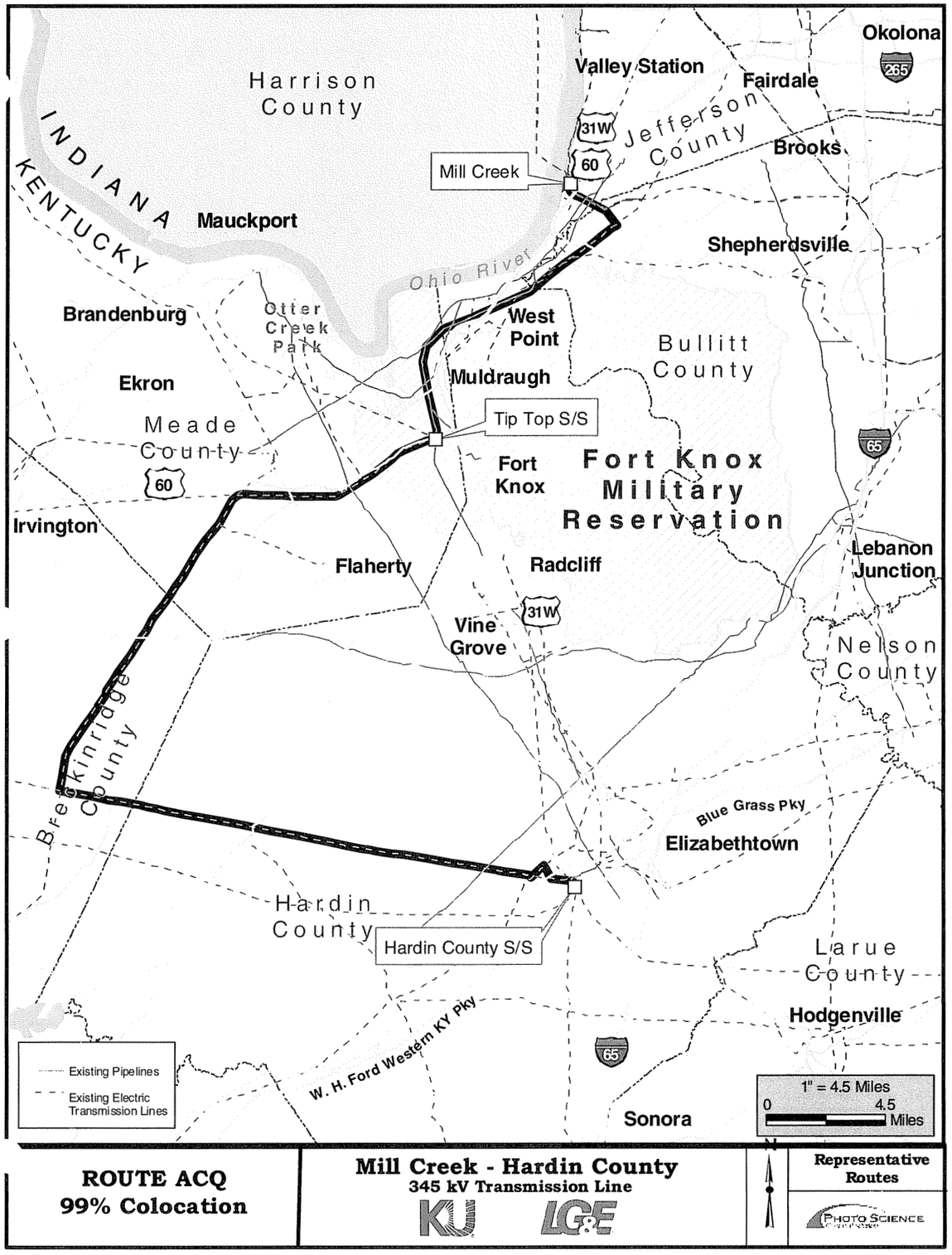
A-24. Please see the attached maps for the requested representative routes. Associated costs follow:

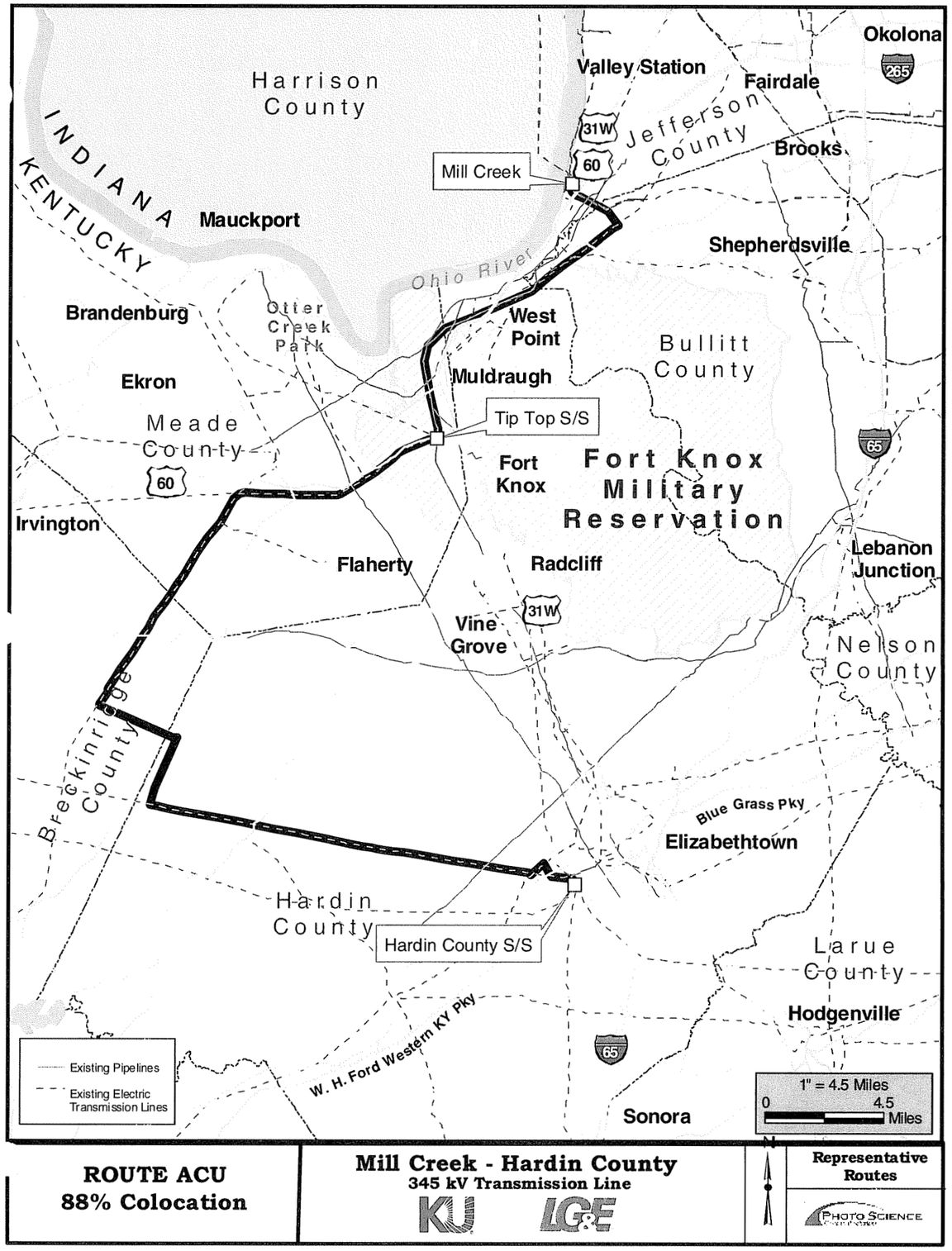
Corridors to the West:

Route ACQ = 99% at $74,588,719.27
Route ACU = 88% at $73,144,887.95
Route ADS = 80% at $72,272,345.32
Route HS = 73% at $69,981,205.68

Corridors to the East:

Route AUL = 95% at $75,661,706.44
Route AUO = 88% at $72,052,369.75
Route AUT = 76% at $68,433,327.59
Route AVB = 67% at $74,721,667.48


Harrison County
INDIANA
KENTUCKY
Mauckport
Ohio River
Mill Creek
Valley Station
Fairdale
Okolona
265
31W
60
Jefferson County
Brooks
Shepherdsville
Brandenburg
Otter Creek Park
West Point
Muldraugh
Bullitt County
Ekron
Meade County
Tip Top S/S
Fort Knox
Fort Knox Military Reservation
65
Irvington
Flaherty
Radcliff
Lebanon Junction
Vine Grove
Nelson County
Breckinridge County
Blue Grass Pky
Elizabethtown
Hardin County
Hardin County S/S
Larue County
Hodgenville
W. H. Ford Western KY Pky
Sonora
Existing Pipelines
Existing Electric Transmission Lines
1" = 4.5 Miles
0
4.5
Miles
ROUTE ACQ
99% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
KU
LG&E
N
Representative Routes
Photo Science


Harrison County
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Mill Creek
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Okolona
Jefferson County
Brooks
Shepherdsville
Brandenburg
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Meade County
Tip Top S/S
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Fort Knox Military Reservation
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Radcliff
Lebanon Junction
Vine Grove
Nelson County
Breckinridge County
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Elizabethtown
Hardin County
Hardin County S/S
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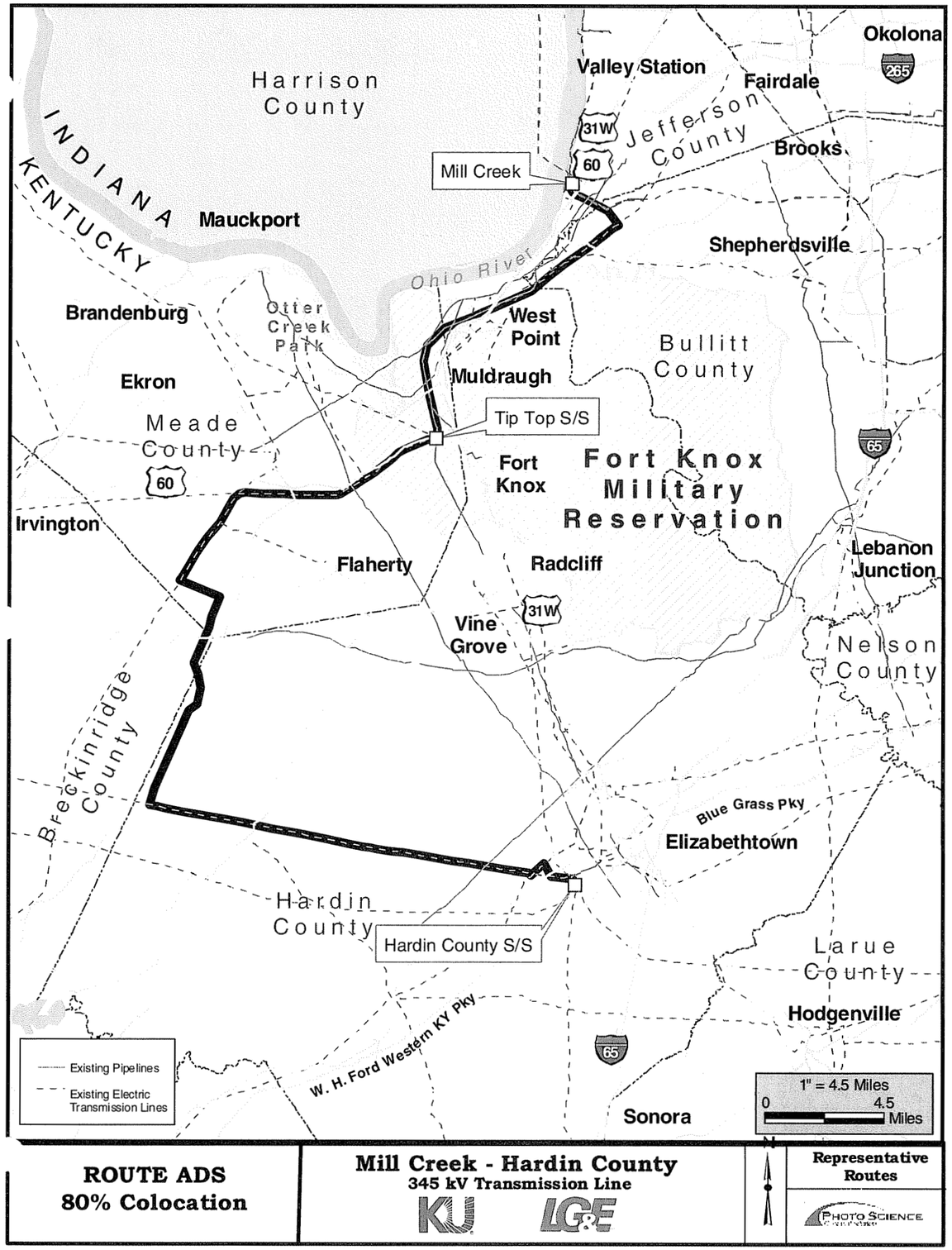
Existing Pipelines
Existing Electric Transmission Lines
1" = 4.5 Miles
0 4.5 Miles
ROUTE ACU
88% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
KU LG&E
Representative Routes
Photo Science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N
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80% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
KU
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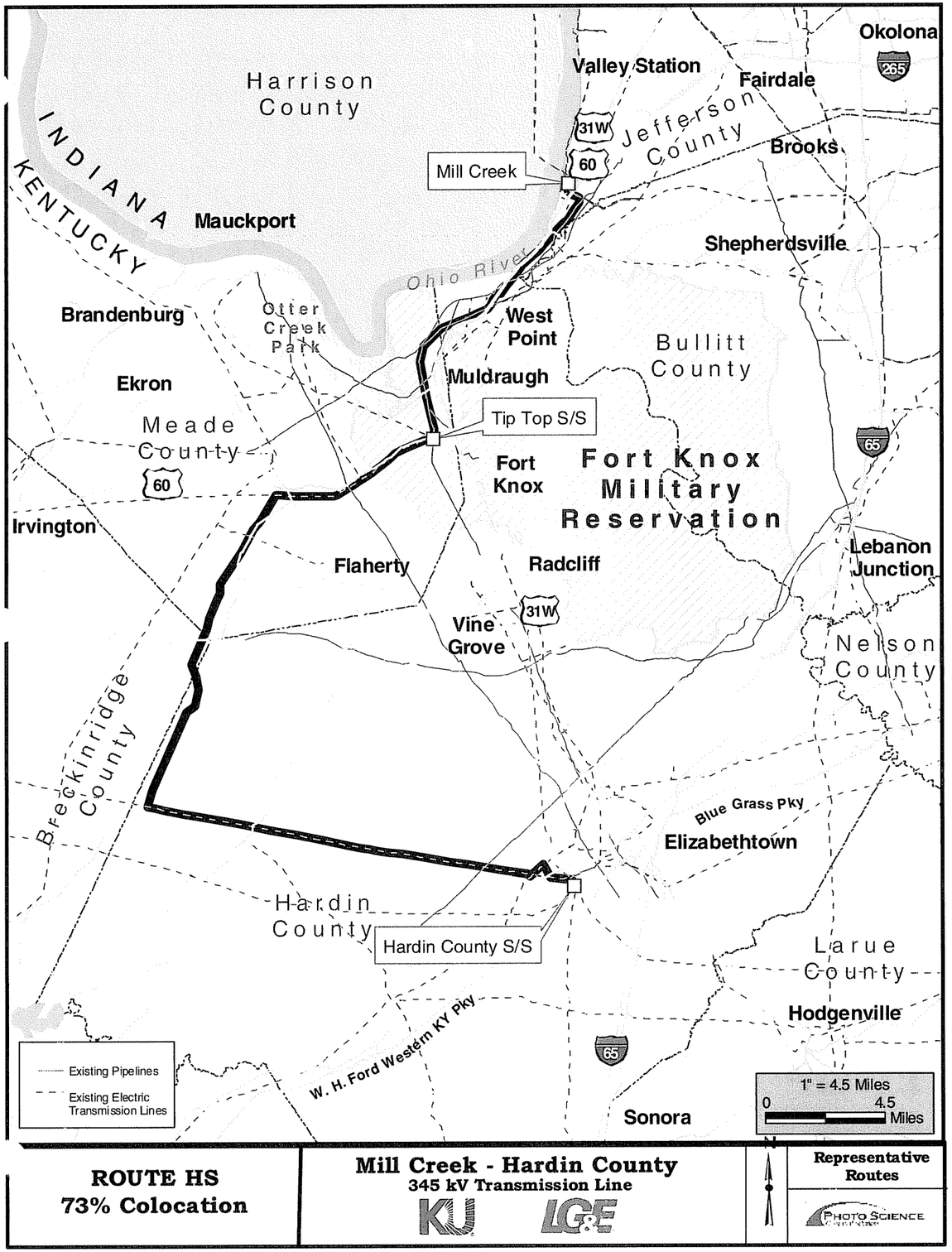
Representative Routes
Photo Science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Brandenburg
Otter Creek Park
West Point
Muldraugh
Bullitt County
Ekron
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Tip Top S/S
Fort Knox
Fort Knox Military Reservation
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Irvington
Flaherty
Radcliff
Lebanon Junction
Vine Grove
Nelson County
Breckinridge County
Blue Grass Pky
Elizabethtown
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Larue County
Hodgenville
W. H. Ford Western KY Pky
Sonora
Existing Pipelines
Existing Electric Transmission Lines
1" = 4.5 Miles
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Mill Creek - Hardin County
345 kV Transmission Line
KU
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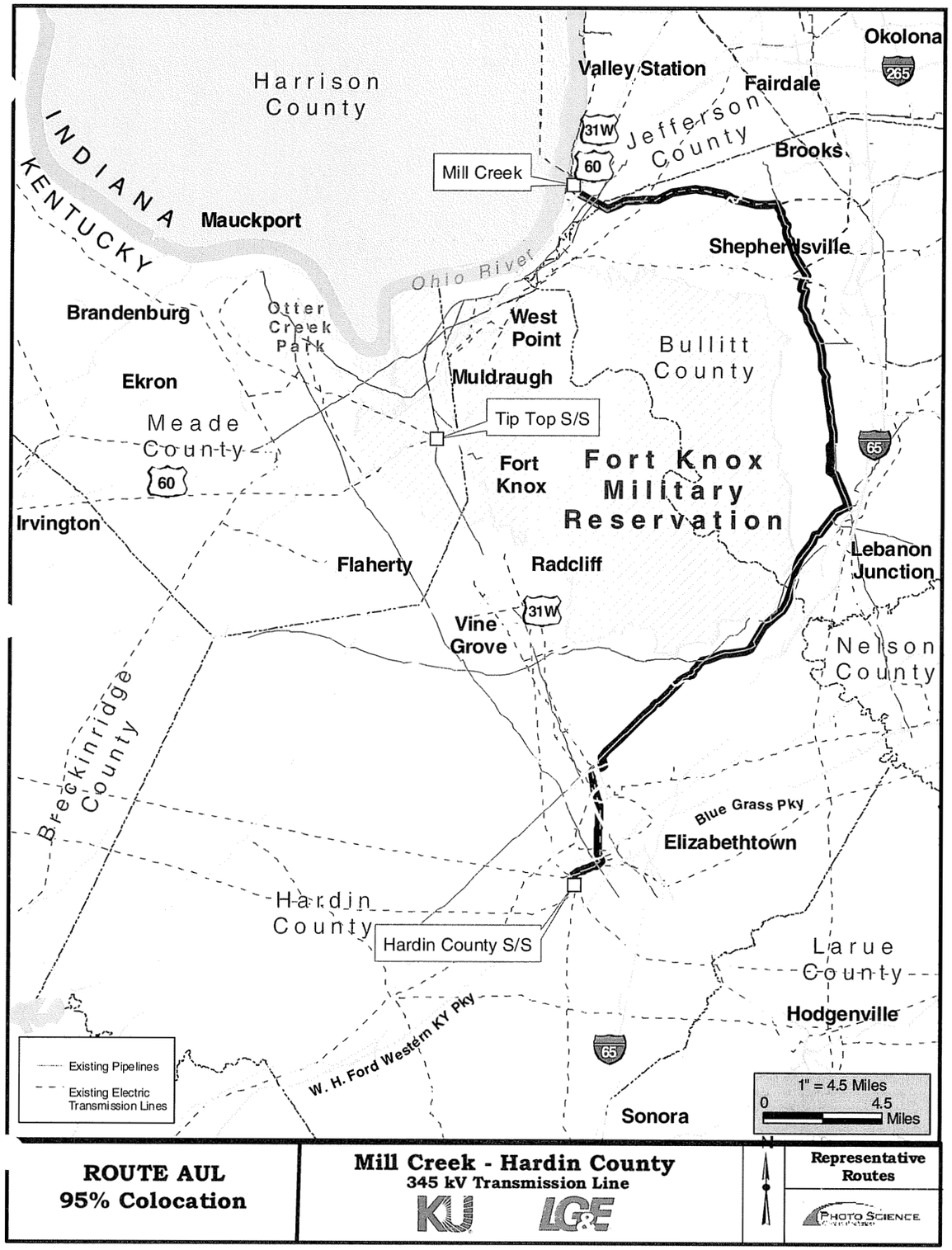
Representative Routes
Photo Science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Sonora
Existing Pipelines
Existing Electric Transmission Lines
1" = 4.5 Miles
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Mill Creek - Hardin County
345 kV Transmission Line
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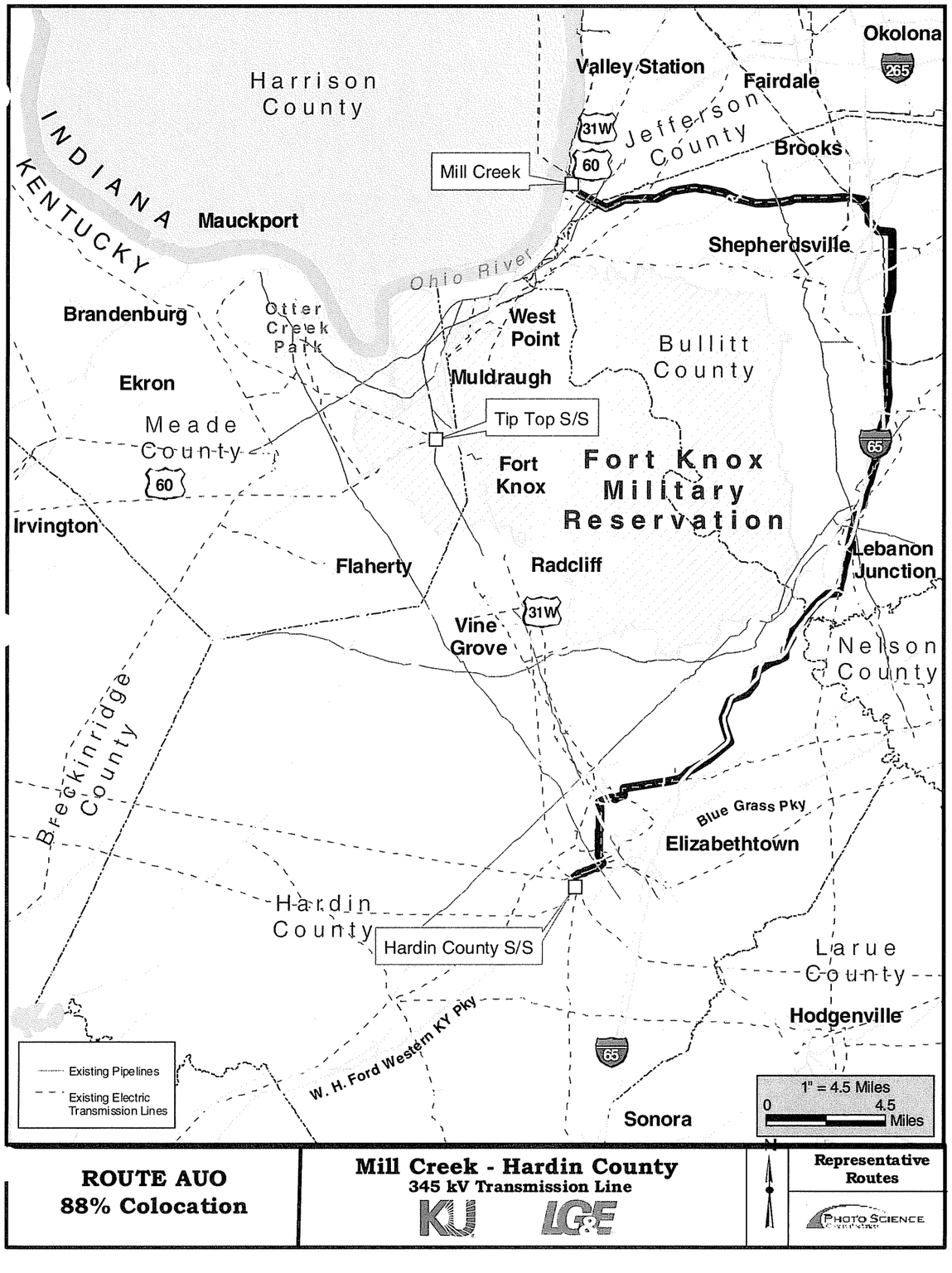
LG&E
Representative Routes
PHOTO SCIENCE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Larue County
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W. H. Ford Western KY Pky
Sonora
Existing Pipelines
Existing Electric Transmission Lines
1" = 4.5 Miles
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88% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
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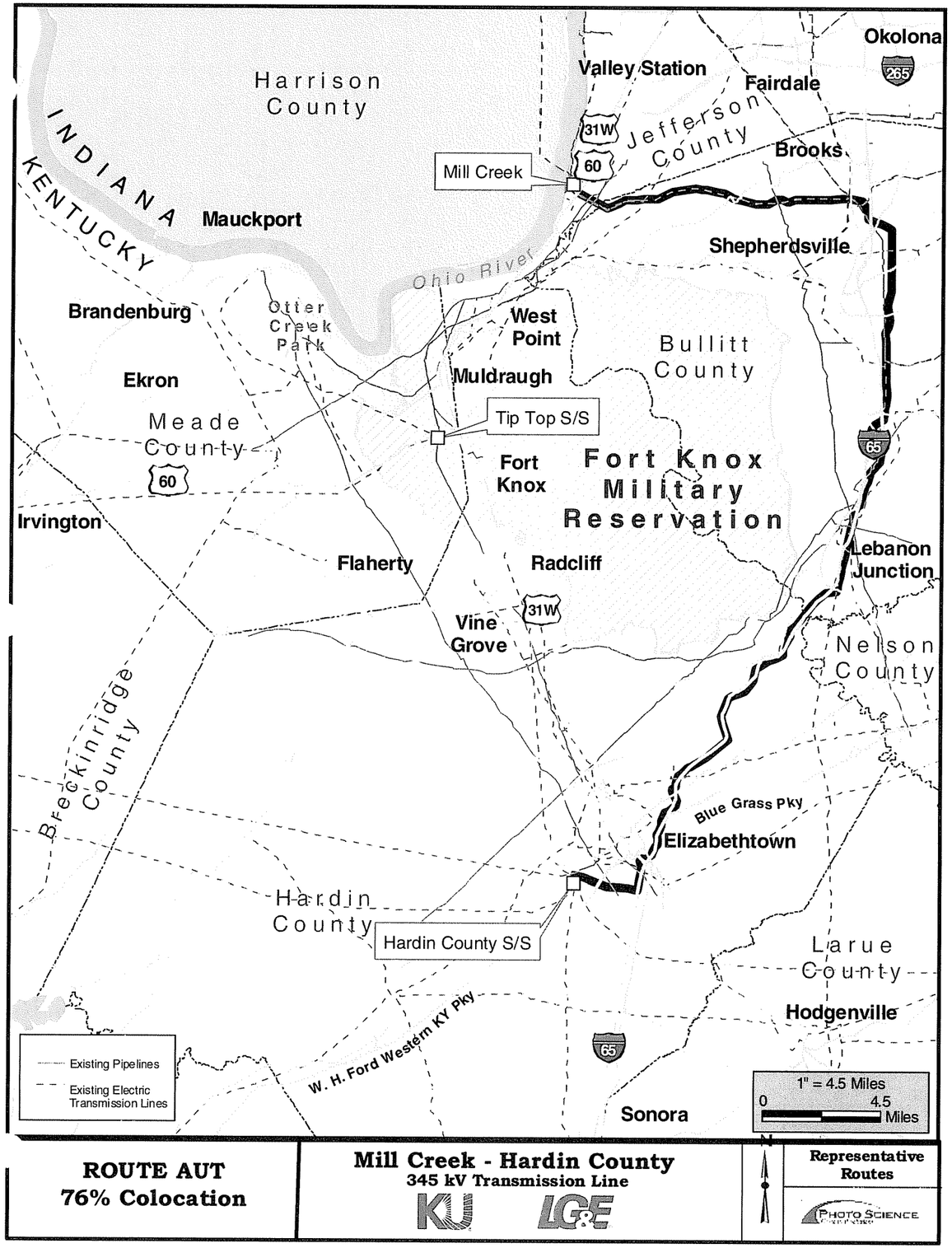
Representative Routes
Photo Science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Existing Electric Transmission Lines
1" = 4.5 Miles
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Miles
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76% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
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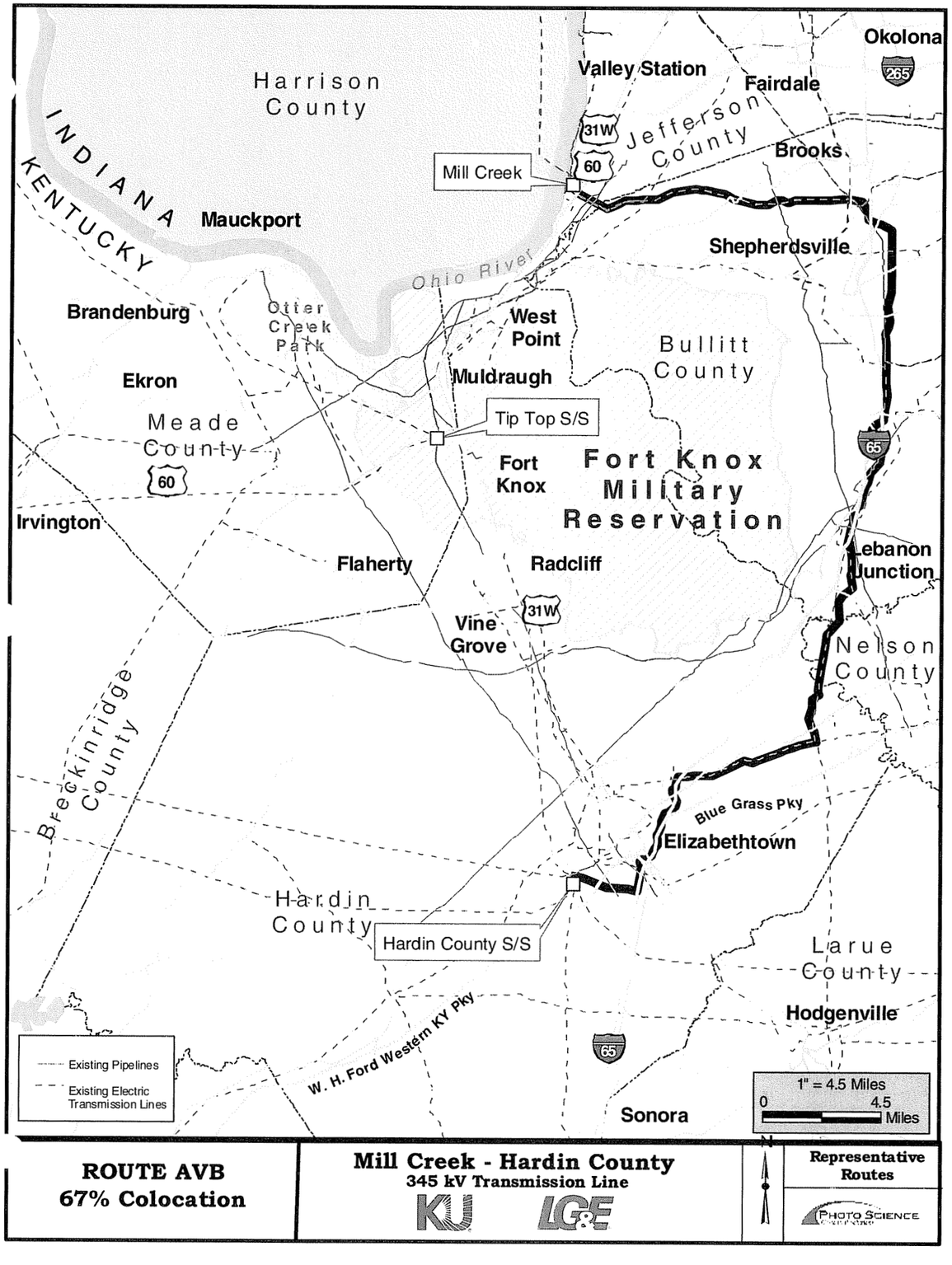
Representative Routes
Photo Science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Sonora
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Existing Electric Transmission Lines
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67% Colocation
Mill Creek - Hardin County
345 kV Transmission Line
KU
LG&E
Representative Routes
Photo Science

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

CASE NOS. 2005-00467 AND 2005-00472

Response to Commission Staff's
Supplemental Data Request
Dated March 6, 2006

Question No. 25

Witness: Clay M. Doherty

Q-25. Refer to CMD-1. Explain the 3,000 foot proximity for listings in the National Register of Historic Places.

A-25. The 3000' proximity comes from the Kentucky State Historic Preservation Officer, based on the maximum potential height of the proposed structures.