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**LG&E ENERGY**

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

July 7, 2005

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

**RE: Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Franklin, Woodford and Anderson Counties, Kentucky**  
**Case No. 2005-00154**

Dear Ms. O'Donnell:

Enclosed please find an original and ten (10) copies of Kentucky Utilities Company's ("KU") Response to the Concerned Citizens' Data Requests and Requests for Production of Documents dated June 30, 2005 in the above-referenced docket.

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:**

**APPLICATION OF KENTUCKY UTILITIES )**  
**COMPANY FOR A CERTIFICATE OF PUBLIC )**  
**CONVENIENCE AND NECESSITY FOR THE ) CASE NO. 2005-00154**  
**CONSTRUCTION OF TRANSMISSION )**  
**FACILITIES IN FRANKLIN, WOODFORD )**  
**AND ANDERSON COUNTIES, KENTUCKY )**

**RESPONSE OF**  
**KENTUCKY UTILITIES COMPANY**  
**TO CONCERNED CITIZENS'**  
**DATA REQUESTS AND**  
**REQUESTS FOR PRODUCTION OF DOCUMENTS**  
**DATED JUNE 30, 2005**

**FILED: July 7, 2005**

## GENERAL OBJECTIONS

The following general objections apply in this Response. To the extent one or more of these general objections are recited hereinafter in response to a specific request, the objections are provided because they are believed to be particularly applicable to such request and are not to be construed as a waiver of any other general objection applicable to such request and are not to be construed as a waiver of any other general objection applicable to information falling within the scope of the specific request.

A. The Companies object to the definitions and instructions given in Concerned Citizens' Data Requests and Requests for Production of Documents to the extent they seek to impose obligations beyond those imposed by the Commission's regulations and the Kentucky Rules of Civil Procedure. The Companies will use the foregoing definitions and comply with the Commission's regulations and the Kentucky Rules of Civil Procedure in responding to Concerned Citizens' Data Requests and Requests for Production of Documents.

B. The Companies object to Concerned Citizens' Data Requests and Requests for Production of Documents as unreasonably broad and unduly burdensome to the extent they request documents or information which are not in the possession of the Companies, are in the possession of any member of Concerned Citizens or their counsel, or are obtainable from some other source that is more convenient, less burdensome or less expensive.

C. The Companies object to Concerned Citizens' Data Requests and Requests for Production of Documents to the extent that they request that the Companies

provide documents or information subject to the attorney-client privilege, work product doctrine or other exemption from discovery.

D. The Companies object to Concerned Citizens' Data Requests and Requests for Production of Documents to the extent they seek documents or information that are neither relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence.

E. The Companies' Response to Concerned Citizens' Data Requests and Requests for Production of Documents is made subject to and without waiver of the following:

- (i) all objections as to competency, relevancy, materiality, privilege and admissibility of information provided;
- (ii) all objections to the use of any privileged information on any ground at any proceeding in this action or in any other action;
- (iii) all objections to any demand or request for further response to this or any other discovery request in this action;
- (iv) the right at any time to amend, review, correct, add to, supplement or clarify any of the responses contained herein; and
- (v) the right to assert factual and legal contentions as additional facts are ascertained, analyses made and legal research is made.

F. The Companies objects to Concerned Citizens' use in the Concerned Citizens' Data Requests and Requests for Production of Documents of terms which are inaccurate, misleading, vague and/or ambiguous.

G. The Companies objects to the Instructions in Concerned Citizens' Data Requests and Requests for Production of Documents to the extent they demand supplementation of this Response under circumstances different from those set forth in the Commission's regulations or CR 26.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 1**

**Responding Witness: Michael G. Toll**

- Q-1. Identify, describe in detail and provide all facts and documents regarding the cost analyses performed by or on behalf of KU for any transmission alternative considered for construction of the line from the Tyrone Substation to the West Frankfort Substation. Each analysis should include all cost estimates, identify the sources of the cost information, describe all assumptions used to develop the analysis, and include any supporting documentation.
- A-1. The topography of the transmission system in the area limits construction alternatives to the proposed Tyrone to West Frankfort 138 kV line. Therefore, no cost analyses of alternative routes were performed. Upgrade of existing facilities was considered. See the response to Question No. 3.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 2**

**Responding Witness: J. Nate Mullins**

Q-2. Identify, describe and explain in detail the photo science process and the factors analyzed and discussed in the affidavit of Nate Mullins which was filed in support of the application. Please provide a copy of that report.

A-2. Please refer to the studies attached hereto.



**Tyrone – West Frankfort**  
138 kV Transmission Line  
Alternative Route Evaluation

**Route Descriptions:**

**Route A1:** Route A1 begins at the Tyrone facility and rebuilds an existing 69 kV transmission line for approx. 4.7 miles to the existing Florida Tile Substation 0.3 miles west of US Hwy 127 as an 138kV single circuit transmission line. Once at the substation, the route turns in a more northern direction in a new corridor, headed through a predominantly rural, agriculture land use for approx. 7.7 miles. The route encounters a few areas of low density residential areas along transportation corridors before crossing Interstate 64, 0.4 miles to the west of the KY Hwy 1665 overpass, and heads to the West Frankfort substation.

**Route A2:** Route A2 is identical to Route A1 with the exception of the rebuild section from Tyrone to the Florida Tile Substation. In this section, the transmission line will be rebuilt as a double circuit transmission line.

**Route A3:** Route A1 begins at the Tyrone facility and rebuilds an existing 69 kV transmission line for approx. 3.7 miles until reaching US Hwy 127. At which point the route parallels the highway for approx. 3.5 miles in a northerly direction. At this point Route A3 joins with Alternate Route B2, heading in a northwestern direct through primarily low density residential land use mixed with agricultural fields. The route crosses Interstate 64 at KY Hwy 1665 and continues into West Frankfort Substation.

**Route B1:** Route B1 leaves the Tyrone facility in a northwestern direction in a new corridor for 5.6 miles in rural, agriculture land use. 0.3 miles to the west of US Hwy 127, the route turns west for 2.5 miles. The route joins Route A 2.5 miles south of Interstate 64.

**Route B2:** Route B2 follows the same corridor as B1 until approx. 0.4 miles after crossing US Hwy 127. At this point, the route leaves route B1 and heads in a northwestern direct through primarily low density residential land use mixed with agricultural fields. The route crosses Interstate 64 at KY Hwy 1665 and continues into West Frankfort Substation.

**Route C:** Route C leaves the Tyrone facility in a north direction, parallel an existing 138 kV transmission line for 4.8 miles in a mixed agriculture and forested landscape. While paralleling this line, Route C crosses the Kentucky River three times. After the 4.8 miles, this route leaves the existing transmission line and parallels an existing gas line for 3.6 miles in a low density residential and agricultural land use. After the 3.6 miles, the route joins route B2, 2.6 miles south of Interstate 64 and 0.9 miles west of US Hwy 127 into Tyrone Substation.

**Cost Analysis:**

A thorough cost analysis was performed on each alternative by analyzing cost of each angle, cost of length, property cost, and clearing cost. These cost are entered in as one of the items in the Metrics Spreadsheet.

Route B1 and Route B2 have the least cost primarily due to the shorter length of approx. 1 mile than the other routes.

Route C has the third least cost. However, clearing cost are the highest. It also has the highest property costs and the most angles with the exception of Route A3.

Route A1 has the lowest clearing cost and property cost with only slightly higher costs for length and angles than Route B1. The lower clearing and property cost are due to the 4.7 miles of rebuild for this route. However, this route is more costly due to the transmission work that will need to take place at Florida Tile Substation.

Route A2 has the fifth highest cost, primarily due to the double circuiting of the rebuild section.

Route A3 has the highest. It is the longest route and the rebuild section will be double circuited. It has the least clearing cost due to the rebuild section and paralleling a highway; but due to paralleling the highway, it has greater number of parcels, higher amount of property costs, and more angles. (See Cost Spreadsheet)

**Metrics:**

A standard set of metrics is collected for each route. These numbers are normalized to basic units and weighted based on the importance of each item. The items are divided into three equal categories: Built Environment, Natural Environment, and Engineering. (See Selection Spreadsheet)

**Built Environment:**

In the Built Environment, Route B1 scores the best. Routes B2 comes in a close second. Routes A1 and A2 score in third, Route A3 scores fourth and Route C scores last. Route C scores last because of the number of residents along the gas pipeline that will be within the corridor and the number of buildings in close proximity. Route C is also in close proximity of a farm, which is listed on the National Register of Historic Places as well as a church. Likewise, Route A3 is in close proximity to homes and other development along US Highway 127. It also crosses a church property.

Routes A1, A2, B1, and B2 all score well with Route B1 scoring the best. Two reasons for B1 out scoring A1, A2, and B2 are Route A1 and A2 have one structure in close proximity that is on the National Register of Historic Places and Route B2 has more residents in close proximity than the other two routes.

**Natural Environment:**

In the Natural Environment, Route B2 and A3 scores the best. Route B2 crosses less streams and a smaller amount of floodplain. Route A3 crosses no wetland at all and the least amount of forested acreage. Typically road routes tend to score better in this category, due to collocating with an existing corridor.

Route B1 scores second having a low acreage of Natural Forests and the second lowest acreage of wetlands. Route A1 and A2 score third, with higher occurrences of streams and floodplain. However, these routes have the next to lowest acreage of forests. Route C, scores last due to the high numbers in all categories and the highest in forested and wetland areas.

**Engineering:**

In the Engineering Section, Route A1 scores the best. This is due to the option to rebuild an existing transmission line as a single circuit transmission line for a portion of its length, although it ranks fourth when it comes to cost. Route C and Route A2 score second. Route C takes advantage of paralleling existing utilities corridors for most of its length and ranking third in cost. Route A2 has the second highest cost due to the rebuild section being double circuit but gets a good score due to the rebuild section.

Route A3 comes in fourth in this category. It has the highest cost of all the corridors, but ranks both B1 and B2 since it utilized a section to existing transmission line to rebuild. Route B1 and B2 come in fourth. Although these routes have the lowest costs, they do not utilize existing corridors.

**Conclusion:**

Route B2 out scores the other alternatives overall; but Routes B1, A1, and A2 are not far behind, with Route B1 scoring best in the Built Environment and Route A1 scoring best in the Engineering Category.

**Expert Judgment:**

After the Alternatives are ranked and scored, the top routes are ranked again in the Expert Judgment Model. (See Expert Judgment Spreadsheet) In this model, categories that are less quantitative are reviewed. Each category is given a weight based on the characteristics of the project. For this project Special Permit Issues and Schedule Delay Risk were weighted as the most important categories.

Routes A1 and B2 appear to be the top routes, with Route A1 scoring best. Route A2 scores a close third, Route B1 scoring a close fourth, and Route C scores the worst.

Route A1 received Low Impact scores in all categories except Special Permit where a Medium Impact score was given due to crossing the interstate without an existing crossing. Route B2 received Low Impact scores in all categories except in Community Issues because of closer proximity to residents and Schedule Delay Risk due to the higher amount of parcels crossed where it received Medium Impact scores. Route A2 received the same scores as Route A1 with the exception to Schedule Delay Risks, where Route A2 was given a Medium Impact due to the double circuit section. Route B1 received the same scores as B2, however a Medium Impact score was given for Special Permits due to the interstate crossing it shares with Route A1 and A2. Routes C and A3 score worst in all categories due the close proximity of residents and other buildings. Route A3 has the largest number of parcels crossed, and Route C crosses of the Kentucky River three times.

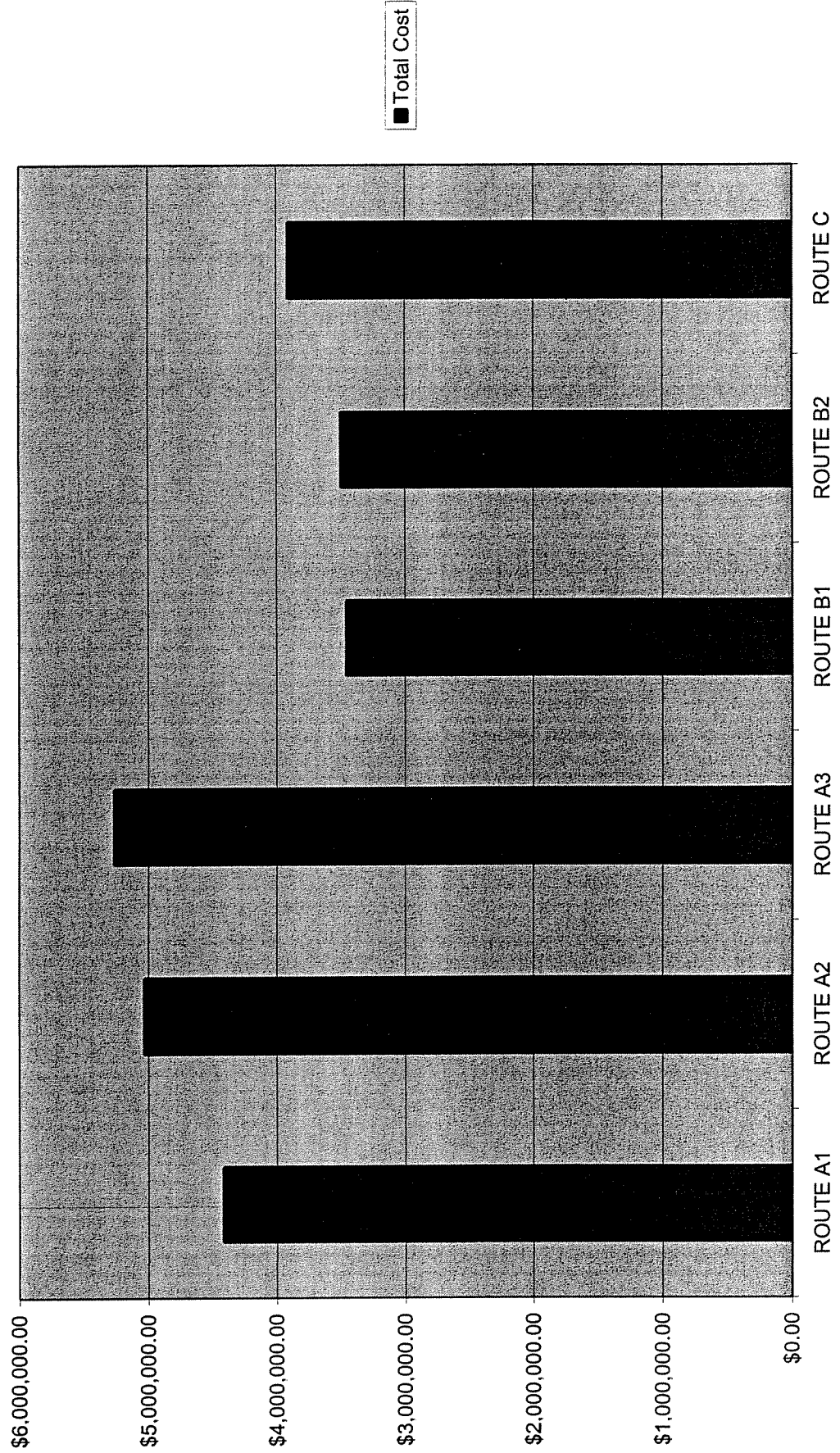
Tyrone - West Frankfort  
138 KV Transmission Line  
Alternate Route Cost Analysis

	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C
FIXED COST	\$1,355,000.00	\$585,000.00	\$585,000.00	\$585,000.00	\$585,000.00	\$585,000.00
ANGLE COST	\$29,600.00	\$365,950.00	\$441,400.00	\$26,600.00	\$73,000.00	\$94,600.00
SINGLE CIRCUIT LENGTH COST	\$2,914,000.00	\$1,809,500.00	\$1,679,392.00	\$2,679,000.00	\$2,632,000.00	\$2,961,000.00
DOUBLE CIRCUIT LENGTH COST	\$0.00	\$2,150,720.00	\$2,192,550.00	\$0.00	\$0.00	\$0.00
<b>Construction Sub-Total</b>	<b>\$4,298,600.00</b>	<b>\$4,911,170.00</b>	<b>\$4,898,342.00</b>	<b>\$3,290,600.00</b>	<b>\$3,290,000.00</b>	<b>\$3,640,600.00</b>
Clearing Cost	\$43,326.00	\$43,326.00	\$22,794.00	\$43,848.00	\$53,070.00	\$88,566.00
30% PVA FMV	\$76,933.20	\$76,933.20	\$345,213.00	\$126,163.20	\$157,946.10	\$181,696.80
Number of Parcels	36	36	96	47	54	72
<b>TOTAL</b>	<b>\$4,418,859.20</b>	<b>\$5,031,429.20</b>	<b>\$5,266,349.00</b>	<b>\$3,460,611.20</b>	<b>\$3,501,016.10</b>	<b>\$3,910,862.80</b>

\*30% PVA FMV and Number of Parcels do not include parcels crossed while rebuilding an existing transmission line or LG&E properties

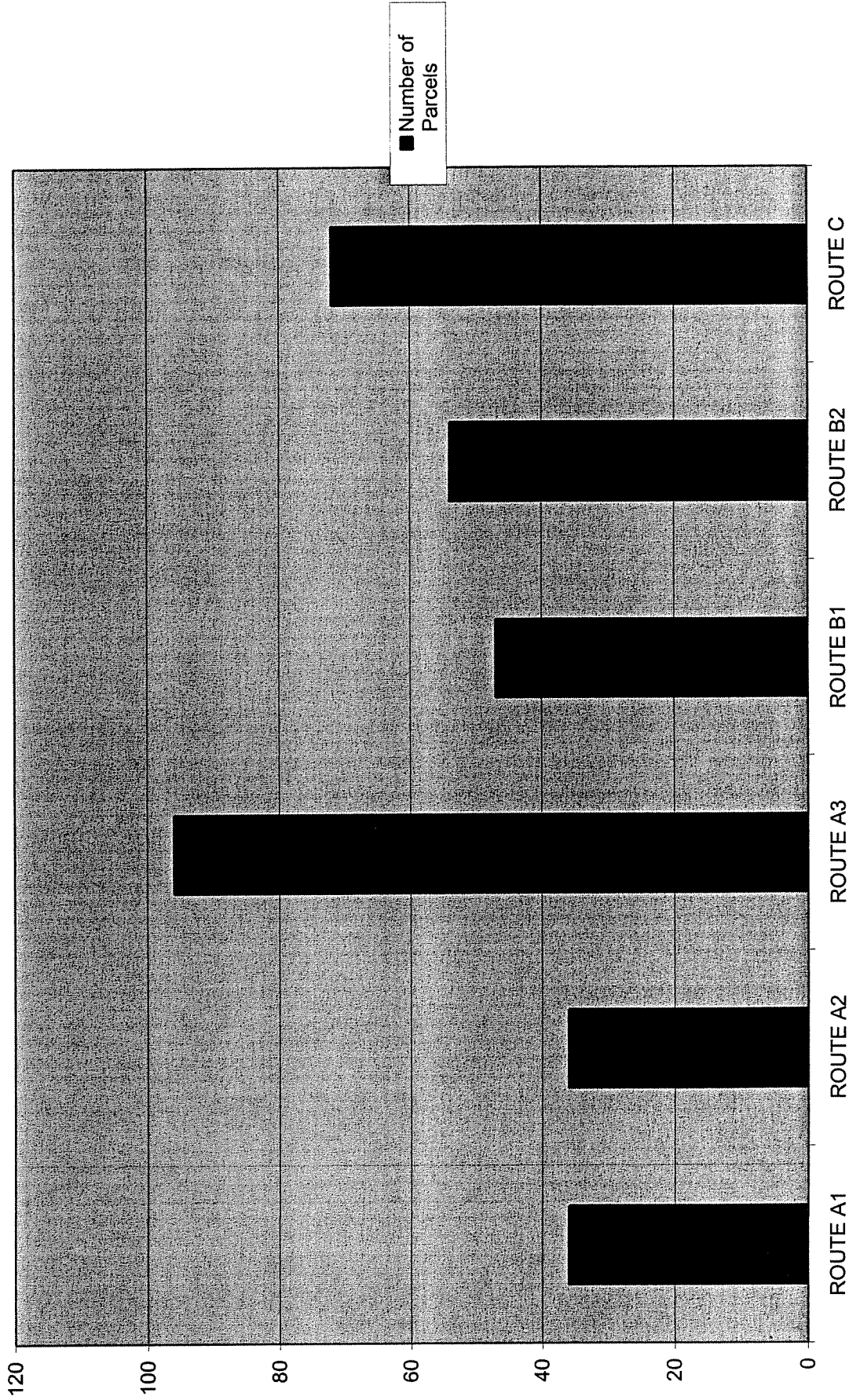
Tyrone - West Frankfort  
138 kV Transmission Line  
Alternate Route Cost Analysis

**Total Project Cost Comparison**



Tyrone - West Frankfort  
138 kV Transmission Line  
Alternate Route Analysis

### Number of Parcels Comparison



Tyrone-West Frankfort  
138 kV Transmission Line  
Alternate Route Statistics Normalized

DATA FOR ALL ROUTES		Numbers Normalized					
		ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C
Segments	Feature	Unit	Unit	Unit	Unit	Unit	Unit
Residences within ROW		0	0	2	0	0	3
<i>Normalized</i>		0.00	0.00	0.67	0.00	0.00	1.00
Proximity to Residences (within 300')		21	21	68	13	28	33
<i>Normalized</i>		0.15	0.15	1.00	0.00	0.27	0.36
Proposed Developments		1	1	2	0	0	0
<i>Normalized</i>		0.50	0.50	1.00	0.00	0.00	0.00
Proximity Commercial Buildings (within 300')		0	0	5	0	0	1
<i>Normalized</i>		0.00	0.00	1.00	0.00	0.00	0.20
Proximity Industrial Buildings (within 300')		1	1	3	0	0	0
<i>Normalized</i>		0.33	0.33	1.00	0.00	0.00	0.00
School, Day Care, Church, Cemetery, and Park Parcels Crossed		0	0	1	0	0	1
<i>Normalized</i>		0.00	0.00	1.00	0.00	0.00	1.00
NRHP Listed Structures and Districts (1500' from edge of R/W)		1	1	1	0	0	1
<i>Normalized</i>		1.00	1.00	1.00	0.00	0.00	1.00
Natural		24.90	24.90	13.10	25.20	30.50	50.90
<i>Normalized</i>		0.31	0.31	0.00	0.32	0.46	1.00
Stream/River Crossings		14	14	12	23	20	23
<i>Normalized</i>		0.18	0.18	0.00	1.00	0.73	1.00
Wetland Areas (Acres)		0.00	0.00	0.00	1.68	2.29	6.36
<i>Normalized</i>		0.00	0.00	0.00	0.26	0.36	1.00
Floodplain Areas (Acres)		6.36	6.36	1.72	5.75	2.44	5.67
<i>Normalized</i>		1.00	1.00	0.00	0.87	0.16	0.85
Engineering		12.40	12.40	13.00	11.40	11.20	12.60
<i>Normalized</i>		0.67	0.67	1.00	0.11	0.00	0.78
Miles of Rebuild with Existing T/L*		4.70	4.70	3.67	0.00	0.00	0.00
<i>Normalized</i>		1.00	1.00	0.78	0.00	0.00	0.00
<i>Inverted</i>		0.00	0.00	0.22	1.00	1.00	1.00
Miles of Co-location with Existing Utilities*		0.00	0.00	0.00	0.00	0.00	8.53
<i>Normalized</i>		0.00	0.00	0.00	0.00	0.00	1.00
<i>Inverted</i>		1.00	1.00	1.00	1.00	1.00	0.00
Miles of Co-location with Roads*		0.00	0.00	3.78	0.00	0.21	0.21
<i>Normalized</i>		0.00	0.00	1.00	0.00	0.06	0.06
<i>Inverted</i>		1.00	1.00	0.00	1.00	0.94	0.94
Total Project Costs		\$4,418,869	\$5,031,429	\$5,266,349	\$3,460,611	\$3,501,016	\$3,910,863
<i>Normalized</i>		0.53	0.87	1.00	0.00	0.02	0.25

\*Statistics are inverted after being normalized.



March 20, 2005

Tyrone - West Frankfort  
 138 kV Transmission Line  
 Built Environment  
 Emphasis  
 Weighting Matrix

Metrics	Numbers Weighted and Summed							
	72%	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE B3	ROUTE B4
Built Emphasis Segments	Feature	Unit	Unit	Unit	Unit	Unit	Unit	Unit
Residences with ROW	44.3%	0.00	0.00	0.67	0.00	0.00	0.00	1.00
Weighted								
Proximity to Residences (within 300')	13.1%	0.00	0.00	0.30	0.00	0.00	0.00	0.44
Weighted								
Proposed Developments	5.4%	0.15	0.15	1.00	0.00	0.00	0.27	0.36
Weighted								
Proximity Commercial Buildings (within 300')	3.6%	0.02	0.02	0.13	0.00	0.00	0.04	0.05
Weighted								
Proximity Industrial Buildings (within 300')	1.8%	0.50	0.50	1.00	0.00	0.00	0.00	0.00
Weighted								
School, Day Care, Church, Cemetery, and Park Parcels Crossed	16.3%	0.03	0.03	0.05	0.00	0.00	0.00	0.01
Weighted								
NRHP Listed Structures and Districts (1500' from edge of RW)	15.5%	0.33	0.33	1.00	0.00	0.00	0.00	0.00
Weighted								
TOTAL		0.01	0.01	0.02	0.00	0.00	0.00	0.00
WEIGHTED TOTAL		0.00	0.00	0.16	1.00	0.00	0.00	1.00
Natural	14%	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Natural Forests (Acres)	9.3%	0.16	0.16	0.16	0.85	0.00	0.04	0.16
Weighted								
Stream/River Crossings	38.0%	0.21	0.21	0.21	0.21	0.00	0.04	0.82
Weighted								
Wetland Areas (Acres)	40.3%	0.15	0.15	0.61	0.61	0.00	0.03	0.56
Weighted								
Floodplain Areas (Acres)	12.4%	0.31	0.31	0.00	0.00	0.32	0.46	1.00
Weighted								
TOTAL	100.0%	0.03	0.03	0.00	0.00	0.03	0.04	0.09
WEIGHTED TOTAL		0.18	0.18	0.00	0.00	1.00	0.73	1.00
Engineering	14%	0.07	0.07	0.00	0.00	0.38	0.28	0.38
Miles of Rebuild with Existing T/L*	65.6%	0.00	0.00	0.00	0.00	0.26	0.36	1.00
Weighted								
Miles of Co-location with Existing Utilities*	19.2%	1.00	1.00	0.00	0.00	0.11	0.15	0.40
Weighted								
Miles of Co-location with Roads*	7.8%	0.12	0.12	0.00	0.00	0.87	0.16	0.85
Weighted								
Total Project Costs	7.4%	0.22	0.22	0.00	0.00	0.11	0.02	0.11
Weighted								
TOTAL	100.0%	0.03	0.03	0.00	0.00	0.62	0.48	0.98
WEIGHTED TOTAL		0.00	0.00	0.00	0.00	0.09	0.07	0.14
SUM OF WEIGHTED TOTALS		0.00	0.00	0.22	1.00	1.00	1.00	1.00
* Inverted for calculations		0.00	0.00	0.14	0.66	0.66	0.66	0.66
		1.00	1.00	1.00	1.00	1.00	1.00	1.00
		0.19	0.19	0.19	0.19	0.19	0.19	0.19
		1.00	1.00	1.00	1.00	1.00	1.00	1.00
		0.08	0.08	0.00	0.00	0.08	0.07	0.07
		0.53	0.87	1.00	1.00	0.00	0.02	0.25
		0.04	0.06	0.07	0.00	0.00	0.00	0.02
		0.31	0.33	0.41	0.93	0.93	0.92	0.75
		0.04	0.05	0.05	0.13	0.13	0.13	0.10
		0.22	0.23	0.67	0.22	0.22	0.22	0.83

Lowest Number is Best

March 20, 2005

Tyrone - West Frankfort  
 138 kV Transmission Line  
 Engineering  
 Emphasis  
 Weighting Matrix

Metrics	Numbers Weighted and Summed						
	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C	Unit
Engineering Emphasis Segments	14%						
Residences with ROW	44.3%	0.00	0.67	0.00	0.00	1.00	1.00
Weighted		0.00	0.30	0.00	0.00	0.44	0.44
Proximity to Residences (within 300')	13.1%	0.15	1.00	0.00	0.27	0.36	0.36
Weighted		0.02	0.13	0.00	0.04	0.05	0.05
Proposed Developments	5.4%	0.50	1.00	0.00	0.00	0.00	0.00
Weighted		0.03	0.05	0.00	0.00	0.00	0.00
Proximity Commercial Buildings (within 300')	3.6%	0.00	1.00	0.00	0.00	0.20	0.20
Weighted		0.00	0.04	0.00	0.00	0.01	0.01
Proximity Industrial Buildings (within 300')	1.8%	0.33	1.00	0.00	0.00	0.00	0.00
Weighted		0.01	0.02	0.00	0.00	0.00	0.00
School, Day Care, Church, Cemetery, and Park Parcels Crossed	16.3%	0.00	1.00	0.00	0.00	1.00	1.00
Weighted		0.00	0.16	0.00	0.00	0.16	0.16
NRHP Listed Structures and Districts (1500' from edge of ROW)	15.5%	1.00	1.00	0.00	0.00	1.00	1.00
Weighted		0.16	0.16	0.00	0.00	0.16	0.16
TOTAL	100.0%	0.21	0.85	0.00	0.04	0.82	0.82
WEIGHTED TOTAL		0.63	0.12	0.00	0.01	0.11	0.11
Natural	14%						
Natural Forests (Acres)	9.3%	0.31	0.00	0.32	0.46	1.00	1.00
Weighted		0.03	0.00	0.03	0.04	0.09	0.09
Stream/River Crossings	38.0%	0.18	0.00	1.00	0.73	1.00	1.00
Weighted		0.07	0.00	0.38	0.28	0.38	0.38
Wetland Areas (Acres)	40.3%	0.00	0.00	0.26	0.36	1.00	1.00
Weighted		0.00	0.00	0.11	0.15	0.40	0.40
Floodplain Areas (Acres)	12.4%	1.00	0.00	0.87	0.16	0.85	0.85
Weighted		0.12	0.00	0.11	0.02	0.11	0.11
TOTAL	100.0%	0.22	0.00	0.62	0.48	0.98	0.98
WEIGHTED TOTAL		0.63	0.00	0.69	0.67	0.14	0.14
Engineering	72%						
Miles of Rebuild with Existing T/L*	65.6%	0.00	0.22	1.00	1.00	1.00	1.00
Weighted		0.00	0.14	0.66	0.66	0.66	0.66
Miles of Co-location with Existing Utilities*	19.2%	1.00	1.00	1.00	1.00	1.00	1.00
Weighted		0.19	0.19	0.19	0.19	0.19	0.19
Miles of Co-location with Roads*	7.8%	1.00	0.00	1.00	1.00	0.94	0.94
Weighted		0.08	0.00	0.08	0.07	0.07	0.07
Total Project Costs	7.4%	0.53	1.00	0.00	0.02	0.25	0.25
Weighted		0.04	0.06	0.00	0.00	0.02	0.02
TOTAL	100.0%	0.31	0.41	0.93	0.92	0.75	0.75
WEIGHTED TOTAL		0.22	0.24	0.67	0.65	0.54	0.54
SUM OF WEIGHTED TOTALS		0.28	0.41	0.75	0.74	0.79	0.79

\* Inverted for calculations  
 Lowest Number is Best

March 20, 2005

Tyrone - West Frankfor  
 138 kV Transmission Line  
 Natural Environment  
 Emphasis  
 Weighting Matrix

Metrics	Natural Emphasis Segments	14%	Numbers Weighted and Summed					
			ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C
	Feature		Unit	Unit	Unit	Unit	Unit	Unit
	Residences with ROW	44.3%	0.00	0.00	0.67	0.00	0.00	1.00
	Weighted		0.00	0.00	0.30	0.00	0.00	0.44
	Proximity to Residences(within 300')	13.1%	0.15	0.15	1.00	0.00	0.27	0.36
	Weighted		0.02	0.02	0.13	0.00	0.04	0.05
	Proposed Developments	5.4%	0.50	0.50	1.00	0.00	0.00	0.00
	Weighted		0.03	0.03	0.05	0.00	0.00	0.00
	Proximity Commercial Buildings(within 300')	3.6%	0.00	0.00	1.00	0.00	0.00	0.20
	Weighted		0.00	0.00	0.04	0.00	0.00	0.01
	Proximity Industrial Buildings(within 300')	1.8%	0.33	0.33	1.00	0.00	0.00	0.00
	Weighted		0.01	0.01	0.02	0.00	0.00	0.00
	School, Day Care, Church, Cemetery, and Park Parcels Crossed	16.3%	0.00	0.00	1.00	0.00	0.00	1.00
	Weighted		0.00	0.00	0.16	0.00	0.00	0.16
	NRHP Listed Structures and Districts (1500' from edge of R/W)	15.5%	1.00	1.00	1.00	0.00	0.00	1.00
	Weighted		0.16	0.16	0.16	0.00	0.00	0.16
	TOTAL	100.0%	0.21	0.21	0.85	0.00	0.04	0.82
	WEIGHTED TOTAL		0.03	0.03	0.12	0.00	0.01	0.11
	Natural	7.2%						
	Natural Forests (Acres)	9.3%	0.31	0.31	0.00	0.32	0.46	1.00
	Weighted		0.03	0.03	0.00	0.03	0.04	0.09
	Stream/River Crossings	38.0%	0.18	0.18	0.00	1.00	0.73	1.00
	Weighted		0.07	0.07	0.00	0.38	0.28	0.38
	Wetland Areas (Acres)	40.3%	0.00	0.00	0.00	0.26	0.36	1.00
	Weighted		0.00	0.00	0.00	0.11	0.15	0.40
	Floodplain Areas (Acres)	12.4%	1.00	1.00	0.00	0.87	0.16	0.85
	Weighted		0.12	0.12	0.00	0.11	0.02	0.11
	TOTAL	100.0%	0.22	0.22	0.60	0.62	0.48	0.98
	WEIGHTED TOTAL		0.15	0.15	0.06	0.45	0.35	0.71
	Engineering	14%						
	Miles of Rebuild with Existing T/L*	65.6%	0.00	0.00	0.22	1.00	1.00	1.00
	Weighted		0.00	0.00	0.14	0.66	0.66	0.66
	Miles of Co-location with Existing Utilities*	19.2%	1.00	1.00	1.00	1.00	1.00	1.00
	Weighted		0.19	0.19	0.19	0.19	0.19	0.19
	Miles of Co-location with Roads*	7.8%	1.00	1.00	0.00	1.00	0.94	0.94
	Weighted		0.08	0.08	0.00	0.08	0.07	0.07
	Total Project Costs	7.4%	0.53	0.87	1.00	0.00	0.02	0.25
	Weighted		0.04	0.06	0.07	0.00	0.00	0.02
	TOTAL	100.0%	0.31	0.33	0.41	0.93	0.92	0.75
	WEIGHTED TOTAL		0.04	0.05	0.06	0.13	0.13	0.10
	SUM OF WEIGHTED TOTALS		0.23	0.24	0.18	0.58	0.48	0.93

\* Inverted for calculations  
 Lowest Number is Best

March 20, 2005

Tyrone - West Frankfor  
 138 kV Transmission Line  
 Simple Average  
 Weighting Matrix

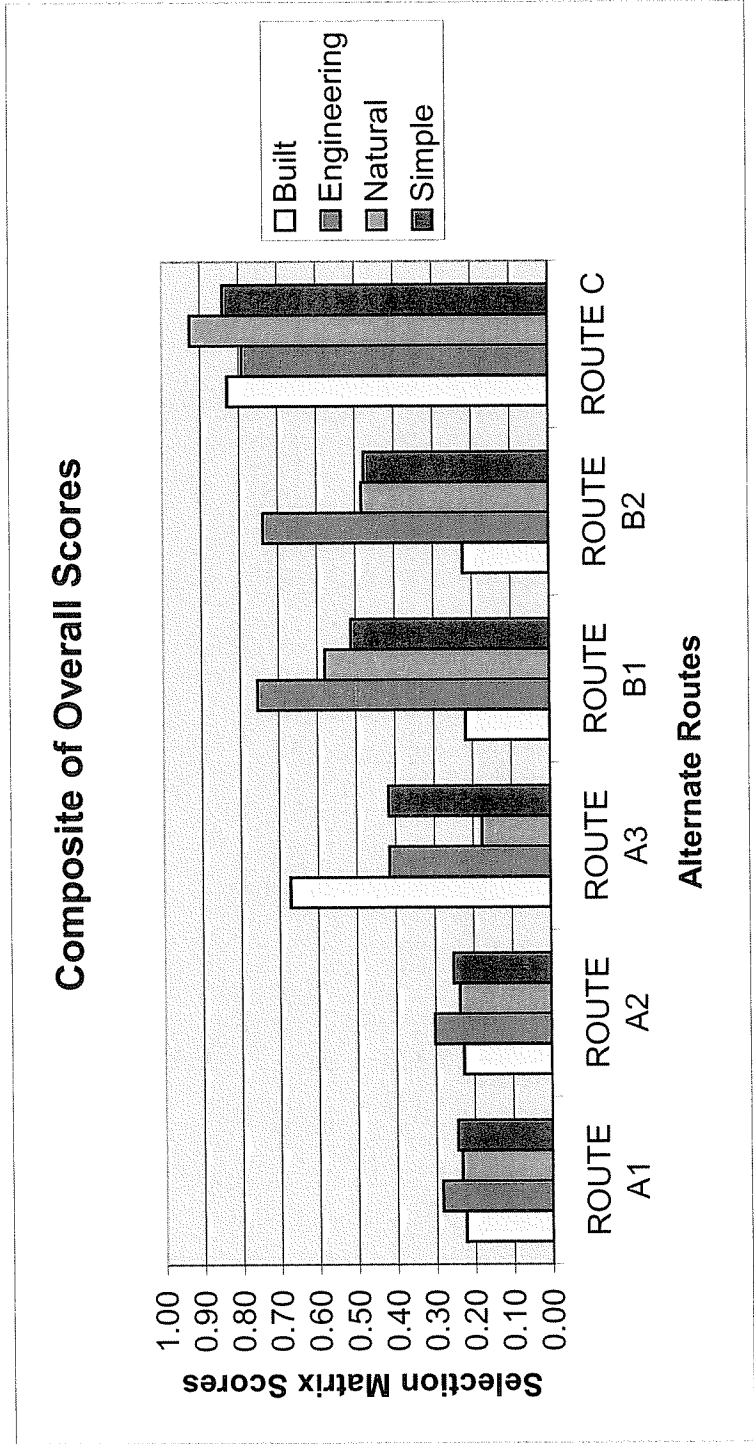
Metrics	Numbers Weighted and Summed					33%	Numbers Weighted and Summed					
	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2		ROUTE B3	ROUTE B4	ROUTE B5	ROUTE B6		
Simple Average Sediments	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit
Residences with ROW	0.00	0.00	0.67	0.00	0.00	44.3%	0.00	0.00	0.00	0.00	0.00	1.00
<i>Weighted</i>	0.00	0.00	0.30	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.44
Proximity to Residences (within 300')	0.15	0.15	1.00	0.00	0.00	13.1%	0.02	0.00	0.00	0.00	0.27	0.36
<i>Weighted</i>	0.50	0.02	0.13	0.00	0.00		0.50	0.00	0.00	0.04	0.04	0.05
Proposed Developments	0.03	0.03	0.05	0.00	0.00	5.4%	0.03	0.03	0.00	0.00	0.00	0.00
<i>Weighted</i>	0.00	0.00	1.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.20
Proximity Commercial Buildings (within 300')	0.00	0.00	0.04	0.00	0.00	3.6%	0.00	0.00	0.00	0.00	0.00	0.01
<i>Weighted</i>	0.33	0.33	1.00	0.00	0.00		0.33	0.33	0.00	0.00	0.00	0.00
Proximity Industrial Buildings (within 300')	0.01	0.01	0.02	0.00	0.00	1.8%	0.01	0.01	0.00	0.00	0.00	0.00
<i>Weighted</i>	0.00	0.00	1.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
School, Day Care, Church, Cemetery, and Park Parcels Crossed	0.00	0.00	1.00	0.00	0.00	16.3%	0.00	0.00	0.00	0.00	0.00	1.00
<i>Weighted</i>	0.00	0.00	0.16	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.16
NRHP Listed Structures and Districts (1500' from edge of RW)	1.00	1.00	1.00	0.00	0.00	15.5%	1.00	1.00	0.00	0.00	0.00	1.00
<i>Weighted</i>	0.21	0.21	0.16	0.00	0.00		0.21	0.16	0.00	0.00	0.00	0.16
TOTAL	0.07	0.07	0.23	0.00	0.00	100.0%	0.07	0.07	0.00	0.04	0.04	0.82
<b>WEIGHTED TOTAL</b>												
Natural	0.31	0.31	0.00	0.32	0.00	33%	0.31	0.31	0.00	0.46	0.00	1.00
<i>Weighted</i>	0.03	0.03	0.00	0.03	0.00		0.03	0.03	0.00	0.04	0.00	0.09
Stream/River Crossings	0.18	0.18	0.00	1.00	0.00	38.0%	0.18	0.18	0.00	0.73	0.00	1.00
<i>Weighted</i>	0.07	0.07	0.00	0.38	0.00		0.07	0.38	0.00	0.28	0.00	0.38
Wetland Areas (Acres)	0.00	0.00	0.00	0.26	0.00	40.3%	0.00	0.26	0.00	0.36	0.00	1.00
<i>Weighted</i>	0.00	0.00	0.00	0.11	0.00		0.00	0.11	0.00	0.15	0.00	0.40
Floodplain Areas (Acres)	1.00	1.00	0.00	0.87	0.00	12.4%	1.00	0.87	0.00	0.16	0.00	0.85
<i>Weighted</i>	0.12	0.12	0.00	0.11	0.00		0.12	0.11	0.00	0.02	0.00	0.11
TOTAL	0.22	0.22	0.00	0.62	0.00	100.0%	0.22	0.62	0.00	0.48	0.00	0.98
<b>WEIGHTED TOTAL</b>												
Engineering	0.07	0.07	0.00	0.21	0.00	33%	0.07	0.21	0.00	0.15	0.00	0.32
<i>Weighted</i>	0.00	0.00	0.22	1.00	0.00	65.6%	0.00	1.00	0.00	1.00	0.00	1.00
Miles of Rebuild with Existing T/L*	0.00	0.00	0.14	0.66	0.00		0.00	0.66	0.00	0.66	0.00	0.66
<i>Weighted</i>	1.00	1.00	1.00	1.00	1.00	19.2%	1.00	1.00	1.00	1.00	1.00	0.00
Miles of Co-location with Existing Utilities*	0.19	0.19	0.19	0.19	0.19		0.19	0.19	0.19	0.19	0.19	0.00
<i>Weighted</i>	1.00	1.00	0.00	1.00	0.94	7.8%	1.00	1.00	1.00	0.94	0.07	0.94
Miles of Co-location with Roads*	0.08	0.08	0.00	0.08	0.07		0.08	0.08	0.00	0.07	0.07	0.07
<i>Weighted</i>	0.53	0.87	1.00	0.00	0.02	7.4%	0.53	0.87	1.00	0.02	0.02	0.25
Total Project Costs	0.04	0.04	0.07	0.00	0.00		0.04	0.00	0.00	0.00	0.00	0.02
<i>Weighted</i>	0.31	0.33	0.41	0.93	0.00	100.0%	0.31	0.33	0.41	0.93	0.00	0.75
TOTAL	0.10	0.11	0.14	0.31	0.30		0.10	0.11	0.14	0.31	0.30	0.25
<b>WEIGHTED TOTAL</b>												
<b>SUM OF WEIGHTED TOTALS</b>	0.24	0.25	0.42	0.51	0.48		0.24	0.25	0.42	0.48	0.48	0.84

Lowest Number is Best

\* Inverted for calculations

MILL CREEK - HARDIN COUNTY  
 345 kV Transmission Line  
 COMPOSITE OF  
 WEIGHTED MATRICES

	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C
Built	0.22	0.23	0.67	0.22	0.22	0.83
Engineering	0.28	0.30	0.41	0.75	0.74	0.79
Natural	0.23	0.24	0.18	0.58	0.48	0.93
Simple	0.24	0.25	0.42	0.51	0.48	0.84



Tyrone - West Frankfort  
 138 kV Transmission Line  
 Expert Judgement Matrix

EXPERT JUDGMENT SCORES : Low Impact 2 = Medium Impact 3 = High Imp:

	Per Project	ROUTE A1	ROUTE A2	ROUTE A3	ROUTE B1	ROUTE B2	ROUTE C
Reliability Issues <i>Weighted</i>	10%	2	1	3	3	3	3
Community Issues <i>Weighted</i>	10%	0.2	0.1	0.3	0.3	0.3	0.3
Schedule Delay Risk (Parcels) <i>Weighted</i>	30%	1	0.1	0.3	0.2	0.2	0.3
Special Permit Issues <i>Weighted</i>	35%	0.3	0.6	0.9	0.6	0.6	0.9
Construction/ Maintenance Accessibility <i>Weighted</i>	5%	2	2	3	2	1	3
Environmental Justice <i>Weighted</i>	10%	0.7	0.7	1.05	0.7	0.35	1.05
<b>TOTAL</b>	<b>100%</b>	<b>1.45</b>	<b>1.65</b>	<b>2.7</b>	<b>1.95</b>	<b>1.6</b>	<b>2.75</b>



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 3**

**Responding Witness: Michael G. Toll**

Q-3. Identify, describe and explain in detail whether or not KU evaluated the possibility of upgrading any existing lines.

A-3. Yes. The MISO studies attached to the Direct Testimony of Mark S. Johnson simulated contingencies and monitored flows on transmission facilities 138 kV and above. The studies identified contingency overloads of the West Frankfort to East Frankfort 138 kV line (7.54 mi) and the East Frankfort to Tyrone 138 kV line (10.62 mi). Additionally, an outage of the West Frankfort to East Frankfort 138 kV line overloads the West Frankfort 138-69 kV transformer and the West Frankfort to East Frankfort 69 kV line. The following upgrades of existing facilities would be required to alleviate the transmission system overloads if the subject line is not constructed:

- Rebuild 7.54 miles of 138 & 69 kV double circuit line between West Frankfort and East Frankfort.
- Rebuild 10.62 miles of 138 kV line between East Frankfort and Tyrone.
- Install a second 138-69 kV, 93 MVA transformer at West Frankfort.
- Replace 69 kV terminal facilities at East Frankfort
- Replace 69 kV terminal facilities at West Frankfort

The City of Frankfort is served via three 138 kV lines: 1) Carrollton to East Frankfort, 2) West Frankfort to East Frankfort and 3) Tyrone to East Frankfort. Rebuild of two of the three lines is required in the upgrade alternative. During the rebuild of either 138 kV line, the City of Frankfort would be vulnerable to an outage of either one of the two remaining 138 kV lines.

These factors make the construction of the proposed Tyrone to West Frankfort 138 kV line the best alternative.





**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 4**

**Responding Witness: J. Nate Mullins**

Q-4. Identify, describe and explain in detail the reasons for not locating this route adjacent to an existing roadway, including but not limited to, Highway 127, Highway 151 or Interstate 64.

A-4. Please refer to the responses to Question Nos. 1 and 2.

Location of the line along Interstate 64 is not possible because Interstate 64 runs in an east/west direction and the direction from Tyrone to West Frankfort is south/north.

Paralleling a section of Highway 127 was evaluated as an alternative. However, this route scored poorly because of the amount of angled structures, property cost along the highway, larger number of properties impacted, and higher number of residents within close proximity to the proposed route.

Alternative routes were not delineated along Highway 151 primarily because of the amount of residential homes along the highway that would be impacted by the transmission line route.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
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**Dated: June 30, 2005**

**Question No. 5**

**Responding Witness: J. Nate Mullins**

Q-5. Identify, describe, explain in detail and produce copies of the EPRI analysis and report.

A-5. Please refer to the response to Question No. 2.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
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Dated: June 30, 2005**

**Question No. 6**

**Responding Witness: J. Nate Mullins**

Q-6. Identify any existing linear facilities considered.

A-6. Please refer to the response to Question No. 2.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
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**Dated: June 30, 2005**

**Question No. 7**

**Responding Witness: J. Nate Mullins**

Q-7. Identify, describe and explain in detail the six (6) routes identified on page 6 of the application.

A-7. Please refer to the response to Question No. 2.





**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
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**Dated: June 30, 2005**

**Question No. 8**

**Responding Witness: J. Nate Mullins**

Q-8. Identify, explain in detail and provide all facts and documents that record, describe, support, refer, or relate to KU's best estimate of the annual cost it would incur to operate this line and describe any operating problems it would incur if this proposed transmission line is not operational.

A-8. Please refer to paragraph 11 of the Application herein. Annual cost to operate this line was estimated using historical data to operate similar facilities in the system. After the first six years of operation, it is estimated that the operations and maintenance cost for the line will be approximately \$3,600 to \$3,800 per mile. Thus, the total cost is estimated to be \$45,000 to \$47,000 per year.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 9**

**Responding Witness: Kent W. Blake / Mark S. Johnson**

Q-9. Identify and explain why KU's application is not premature in light of the pendency of the Commission's decision in Case No. 2004-00507.

A-9. The transmission project which is the subject of this proceeding, together with other pending proceedings involving transmission projects (Case Nos. 2005-00154 and 2005-0155) and the new generating unit which is the subject of Case Nos. 2004-00507 and 2005-00152, is part of KU's plan to remain in a position to provide reliable, low-cost power to its native customers. In order to be able to have the facilities in place when they are forecast to be needed, and given the length of time required for regulatory approval, right-of-way acquisition and construction, it was necessary for KU to file the Application in this proceeding on the timetable which has been followed. KU gave great consideration to the timing of this proceeding and the subject project, and the coordination of this proceeding with Case No. 2004-00507 was the subject of an informal conference with Commission Staff and other interested parties on January 13, 2005, and all in attendance agreed with the general timeline to be followed. For all of those reasons, there is nothing premature about KU's application in this proceeding.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 10**

**Responding Witness: J. Nate Mullins / Counsel**

Q-10. Identify, describe and explain in detail the projected cost of easement purchases in relation to the construction of this line.

A-10. KU objects to this request to the extent that it seeks information which goes beyond the scope of the matters at issue in this proceeding, which proceeding is not to address issues relating to right-of-way acquisition or condemnation. Without waiver of that objection, however, KU states that information responsive to this question is contained in the response to Question No. 2. The property values set forth therein are based on 30% of the fair market value of the land as contained in the records of the applicable property valuation administrators.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
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**Dated: June 30, 2005**

**Question No. 11**

**Responding Witness: J. Nate Mullins / Counsel**

- Q-11. Identify, describe and explain in detail whether or not the proposed construction cost of this line includes the condemnation costs of all property involved, and provide a breakdown of that cost estimate.
- A-11. KU objects to this request to the extent that it seeks information which goes beyond the scope of the matters at issue in this proceeding, which proceeding is not to address issues relating to right-of-way acquisition or condemnation. Without waiver of that objection, however, KU states that legal condemnation costs were not included.





**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents  
Dated: June 30, 2005**

**Question No. 12**

**Responding Witness: J. Nate Mullins / Counsel**

Q-12. Identify and explain in detail the process of why the proposed route is the most cost effective in light of the value of farmland that would be condemned or purchased to build this line.

A-12. KU objects to this request to the extent that it seeks information which goes beyond the scope of the matters at issue in this proceeding, which proceeding is not to address issues relating to right-of-way acquisition or condemnation. Without waiver of that objection, however, KU states that the existence of transmission lines has no substantial impact on the ability to use real property as farmland. In addition, please see the response to Question No. 2.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 13**

**Responding Witness: Nate J. Mullins / Counsel**

- Q-13. Identify, provide all documents and explain in detail the process by which KU established a per acre value of the farmland to be condemned for construction of the right of way for the transmission line in question.
- A-13. KU objects to this request to the extent that it seeks information which goes beyond the scope of the matters at issue in this proceeding, which proceeding is not to address issues relating to right-of-way acquisition or condemnation and because it assumes, without basis, that farmland will be condemned. Without waiver of that objection, however, please refer to the response to Question No. 10.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents  
Dated: June 30, 2005**

**Question No. 14**

**Responding Witness: J. Nate Mullins / Counsel**

- Q-14. Identify, provide all documents and explain in detail the process by which KU determined how many acres would be condemned for the construction of the proposed line.
- A-14. KU objects to this request to the extent that it seeks information which goes beyond the scope of the matters at issue in this proceeding, which proceeding is not to address issues relating to right-of-way acquisition or condemnation. Without waiver of that objection, however, KU states that it hopes no acres will need to be condemned. Normal 138 kV construction contemplates a 150 foot wide easement corridor (75 feet on each side of the centerline). The length is multiplied by the 150 foot width and divided by 43,560 square feet which yields the acreage impacted.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 15**

**Responding Witness: Mark S. Johnson / Counsel**

Q-15. Identify each and every meeting KU or its representatives had with any citizen, chamber of commerce, local Governmental office or Board (including but not limited to the PSC), whether this meeting was scheduled or unscheduled, and if it related to the substance of this application.

A-15. KU objects to this request on grounds that it is overly broad, unduly burdensome and seeks information which is not relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence. Without waiver of that objection, KU states that it participated in an informal conference at the Public Service Commission on January 13, 2005, during which the proposed line was discussed among other subjects; it conducted a public information session at the Robert B. Turner Elementary School in Lawrenceburg on April 26, 2005; it participated in a public comment hearing at the Public Service Commission on July 5, 2005. KU also has spoken with a number of citizens about the proposed line on other occasions of which it does not have a record. In addition, KU met with a property owner named Mark Lilly on May 24, 2005 to discuss the location of existing structures on his property that is currently being developed off of the Lawrenceburg bypass. Finally, other meetings were held with various elected officials and civic leaders to advise them of the proposed line.





**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents  
Dated: June 30, 2005**

**Question No. 16**

**Responding Witness: J. Nate Mullins**

Q-16. Identify, describe and explain in detail the service line to the BFI facility located in Franklin County, and that line's size and/or capacity.

A-16. The BFI facility in Franklin County is not served by KU and, thus, KU does not know the details of its service line.



**KENTUCKY UTILITIES COMPANY**

**CASE NO. 2005-00154**

**Response to Concerned Citizens' Data Requests  
and Requests for Production of Documents**

**Dated: June 30, 2005**

**Question No. 17**

**Responding Witness: Mark S. Johnson / Michael G. Toll**

Q-17. Identify, describe and explain in detail whether the line at issue in this application is needed to meet current power demands.

A-17. As explained in KU's Application and the pre-filed testimony accompanying that Application, the proposed transmission facilities are needed to transmit electric power required by the projected load that will be served from the proposed 750 MW nominal supercritical pulverized coal fired base load generating unit to be located at the Trimble County Generating Station as well as base load that will be served from other sources. Therefore, this line is proposed to provide reliable service in the summer of 2010. In addition, transmission planning studies identified contingency overload and low voltage problems during 2003 summer peak conditions. While a transmission capacitor has been installed at East Frankfort and operating procedures have been developed to address that situation on an interim basis, the proposed line will address the situation on a more permanent basis.



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**Question No. 18**

**Responding Witness: Michael G. Toll**

Q-18. Identify, describe and explain in detail what area would be served by this line, and whether this area is located in Franklin, Anderson or Woodford Counties.

A-18. The transmission system is a free-flowing network designed to deliver generation to KU's native load customers. This line is being constructed to alleviate expected overloads from West Frankfort to East Frankfort to Tyrone during contingencies in the immediate area and contingencies of extra high voltage facilities supporting the central Kentucky area.



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**Question No. 19**

**Responding Witness: J. Nate Mullins / Counsel**

Q-19. Identify, describe, explain in detail and produce any documents showing all existing rights of way owned by KU, or other power companies, located in Franklin, Anderson or Woodford Counties.

A-19. KU objects to this request on grounds that it is overly broad, unduly burdensome and seeks information which is not relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence.





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**Question No. 20**

**Responding Witness: J. Nate Mullins**

Q-20. Identify, describe and explain in detail whether KU considered the existing right of way for Highway 151.

A-20. Please refer to the response to Question No. 4.



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**Question No. 21**

**Responding Witness: J. Nate Mullins**

Q-21, Identify, describe and explain in detail what portion of the existing right of way mentioned on page 7 of KU's application will be used and how wide is it.

A-21. All of the existing right of way will be used and it is 100 feet wide on the Florida Tile 69 KV tap and 150 feet wide on the Tyrone – Bonds Mill 69 KV Double Circuit line.



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**Question No. 22**

**Responding Witness: J. Nate Mullins**

Q-22. Identify, describe and explain in detail the difference in cost between underground installation of transmission lines as compared to overhead transmission lines per linear foot, and also the difference in cost for maintenance of these lines.

A-22. The cost of installation of underground transmission lines ranges from 6 to 10 times the cost of overhead transmission. Due to the failure rate of underground cable, the inability to do an energized inspection of the facilities, the specialized equipment, the duration of outages for repair, and the specialized labor to maintain underground transmission lines, the cost to maintain underground facilities can be the same if not more than the maintenance cost of overhead transmission lines.



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**Question No. 23**

**Responding Witness: Michael G. Toll**

Q-23. Identify, describe and explain in detail whether these lines are needed to meet current power demands.

A-23. Please refer to the response to Question No. 17.





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**Question No. 24**

**Responding Witness: Michael G. Toll / Counsel**

Q-24. Identify, describe and explain in detail whether the current system is operating at peak capacity, and if so, how many hours per year it is operated at peak capacity.

A-24. KU objects to this request on grounds that it seeks information which is not relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence. Without waiver of that objection, please refer to the response to Question No. 17.



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**Question No. 25**

**Responding Witness: Michael G. Toll**

Q-25. Identify, describe and explain in detail why a 138kV line was chosen for this project.

A-25. A 138 kV line is being utilized because the line is being built between two stations with 138 kV busses and is being constructed to alleviate flows on other 138 kV lines.



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**Question No. 26**

**Responding Witness: J. Nate Mullins**

Q-26. Identify, describe and explain in detail the size of the structures necessary to carry an 138 kV line.

A-26. Please refer to Exhibit JNM-2 attached to the direct testimony of J. Nate Mullins.



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**Question No. 27**

**Responding Witness: J. Nate Mullins**

Q-27. Identify, describe and explain in detail why existing power line corridors weren't used.

A-27. Existing transmission power line corridors were used as much as possible when evaluating routes for the proposed line. The preferred route rebuilds an existing transmission line for approximately 1/3 of its length.





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**Question No. 28**

**Responding Witness: J. Nate Mullins**

- Q-28. Identify, describe, explain in detail and produce any videotaped recordings, audio recordings or written transcripts, if they exist, which record any of the events from any of the meetings held between KU, the PSC and its agents, and/or the Citizens affected by the construction of this power line.
- A-28. KU has no such recordings or transcripts. Presumably, the video recording of the hearing for public comment held by the Public Service Commission on July 5, 2005, herein may be obtained from the Commission.



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**Question No. 29**

**Responding Witness: Mark S. Johnson / Counsel**

- Q-29. Identify, describe, explain in detail and produce any outlines or notes from any meetings or presentations held with the property owners, specifically including but not limited to, the meeting held at the elementary school located in Anderson County.
- A-29. The outline for KU's presentation at the hearing for public comment held on July 5, 2005 was made available to all who attended that hearing, including counsel for Concerned Citizens. The communications between KU and the participants at the Robert B. Turner Elementary School on April 26, 2005, were impromptu and oral and no notes or outlines exist. KU objects to the remainder of this request, to the extent that it seeks documents created by counsel, on grounds that such documents are privileged.



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**Question No. 30**

**Responding Witness: Mark S. Johnson**

- Q-30. Provide copies of all documents and maps you brought to this meeting whether or not they were made available to the Citizens at these meetings.
- A-30. Assuming that "this meeting" is the April 26, 2005, meeting at Robert B. Turner elementary School, KU states that all documents and maps brought to that meeting were available at the hearing for public comment herein held at the Public Service Commission on July 5, 2005. The maps are too bulky to produce herein, but KU will make them available for inspection upon request at reasonable business hours at the offices of LG&E Energy LLC in Louisville, Kentucky or at the offices of Kentucky Utilities Company in Lexington, Kentucky.



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**Question No. 31**

**Responding Witness: J. Nate Mullins / Counsel**

Q-31. Identify, describe, explain in detail and produce copies of any field surveys, evaluation of topography and geology, notes of discussion regarding same, any reports regarding same, and identify who prepared those reports.

A-31. KU objects to this request on grounds that it is overly broad, unduly burdensome and seeks information which is not relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence. Without waiver of that objection, KU states that 2' topo and planimetrics maps were created by Photo Science along the preferred corridor by means of photogrammetry for aerial photos captured on Feb. 12<sup>th</sup>, 2005. This is in Microstation format. It may be printed onto sheets which are too bulky to be produced herein but KU will make them available for inspection upon request at reasonable business hours at the offices of LG&E Energy LLC in Louisville, Kentucky or at the offices of Kentucky Utilities Company in Lexington, Kentucky.





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**Question No. 32**

**Responding Witness: J. Nate Mullins**

- Q-32. Identify, describe and explain in detail any special cultural items as identified in the application and why these were not considered at the beginning of this project.
- A-32. Cultural resources were identified and considered at the beginning of the project. Please refer to the response to Question No. 2.



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**Question No. 33**

**Responding Witness: Kent W. Blake / Counsel**

- Q-33. Identify each witness you intend to call at the hearing in this matter by stating each witness(es)' full name, current or last-known business and home addresses, current or last-known business and home telephone numbers, and provide a brief summary of the substance of such witness(es)' expected testimony.
- A-33. KU intends to present the testimony of Mr. Johnson and Mr. Mullins, whose direct testimony was pre-filed with the Application in this proceeding. Business addresses are provided in the pre-filed testimony. KU also expects to make available any witness who has sponsored a data request response in this proceeding. At the present time, and under the existing procedural schedule, KU does not anticipate any further witnesses. KU objects to the request for home telephone numbers and addresses for any of its witnesses on grounds that such information is private and is not relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence.