



an **e-on** company

Mr. Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

RECEIVED

NOV 23 2010

PUBLIC SERVICE
COMMISSION

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

Rick E. Lovekamp
Manager - Regulatory Affairs
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November 23, 2010

RE: ***APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR
THE CONSTRUCTION OF TRANSMISSION FACILITIES IN
McCRACKEN COUNTY, KENTUCKY
Case No. 2010-00164***

Dear Mr. DeRouen:

Enclosed please find an original and six (6) copies of Kentucky Utilities Company's ("KU") Application and Testimonies in the above-referenced docket.

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

Sincerely,

Rick E. Lovekamp

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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NOV 23 2010

PUBLIC SERVICE
COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES)
COMPANY FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY)
FOR THE CONSTRUCTION OF)
TRANSMISSION FACILITIES IN MCCRACKEN)
COUNTY, KENTUCKY)

CASE NO.
2010-00164

* * * * *

APPLICATION

Kentucky Utilities Company (“KU” or the “Company”), pursuant to KRS 278.020, et seq., 807 KAR 5:001 and 807 KAR 5:120, hereby applies to the Kentucky Public Service Commission (“Commission”) for a Certificate of Public Convenience and Necessity for the construction of certain electric transmission facilities to be located in McCracken County, Kentucky. In support of this Application, the Company states as follows:

1. Address. KU’s full name and business address is: Kentucky Utilities Company, One Quality Street, Lexington, Kentucky 40507. KU’s mailing address is: P.O. Box 32010, Louisville, Kentucky 40232.

2. Articles of Incorporation. A certified copy of the Company’s Articles of Incorporation is already on file with the Commission in Case No. 2010-00204, *In the Matter of: Joint Application of PPL Corporation, E.ON AG, E.ON US Investments Corp., E.ON U.S. LLC, Louisville Gas and Electric Company and Kentucky Utilities*

Company for Approval of an Acquisition of Ownership and Control of Utilities, and is incorporated herein by reference pursuant to 807 KAR 5:001, Section 8(3).

3. Description of Proposed Transmission Facilities. The Company seeks a certificate of public convenience and necessity to construct a 161 kV transmission line, approximately 1.69 miles in length, running from KU's Grahamville Substation ("Grahamville") in McCracken County to the Electric Energy, Inc. ("EEI") transmission line near the Department of Energy property in McCracken County, Kentucky. 807 KAR 5:001, Section 9(2)(c).

4. Notice of Intent. The Company filed its Notice of Intent to file this Application with the Commission on April 23, 2010, pursuant to 807 KAR 5:120, Section 1. A copy of the Notice of Intent is attached hereto as Exhibit 1.

5. Statement of Necessity. The proposed transmission facilities are necessary to transmit electric power to the municipal systems of the cities of Paducah and Princeton, Kentucky, as well as to provide additional reliability to the transmission network in West Kentucky. The need for these facilities is described in more detail in the direct testimonies of Edwin R. Staton and Lonnie E. Bellar, submitted herewith. 807 KAR 5:001, Section 9(2)(a).

6. Statement of Convenience. The route of the transmission line is designed to serve the projected load with as little negative impact as can be reasonably afforded, while maximizing the use of existing facilities and utility corridors to the extent practicable. In deciding upon the route for this proposed line, the Company addressed the Commission's directive in its final order in Case No. 2005-00142, to thoroughly review "all reasonable alternatives, including locating the line partially or fully along existing

transmission corridors." The Company also followed the five-step route-selection process identified by Commission Staff in its October 5, 2005, Intra-Agency Memorandum in Case No. 2005-00142. The Company's process identified two potential routes for further study, and the proposed route was determined through extensive study, conducting field surveys, evaluating the topography along the routes considered and adjusting the route as appropriate, consistent with sound engineering and regulatory principles. Consultants at PhotoScience, Inc. evaluated the potential routes and issued a report and recommendation, which is attached hereto as Exhibit 2. The direct testimony of Mr. Staton, submitted herewith, contains a discussion of the reasons that the proposed construction serves the public convenience and is incorporated herein by reference. 807 KAR 5:001, Section 9(2)(a).

7. Permits or Franchises. The Companies are not required to obtain franchises from any public authorities and, thus, none are submitted herewith as required by 807 KAR 5:001, Section 9 (2)(b). The Company will be required to obtain a Department of Energy permit and may be required to obtain highway and railroad crossing permits as well as certain environmental and construction-related permits associated with the construction of the proposed transmission line. Copies of such permits will be filed with the Commission, as obtained, to the extent required by law or requested by the Commission pursuant to 807 KAR 5:001, Section 9(2)(b).

8. Description of Locations and Routes. A full description of the proposed location and route of the transmission facilities and a description of the manner in which the same will be constructed is contained in the direct testimony of Mr. Staton, as required by 807 KAR 5:001, Section 9(2)(c). The proposed transmission line will not

compete with any public utilities, corporations or persons. The Company is also seeking the authority to make modifications to the specific route of the proposed line, within the corridor of properties identified herein, so long as the property owner on whose property the modification has been made agrees to the change, without the need to seek any further approval from this Commission.

9. Route Maps. Pursuant to 807 KAR 5:001, Section 9(2)(d) and 807 KAR 5:120, Section 2(2), maps in a scale of 1 inch equals 300 feet showing the proposed transmission line, including the affected property boundaries as indicated on the county's property valuation administrator's maps, and the location of all facilities, rights of way and easements are submitted herewith as Exhibit 3. Sketches of proposed typical transmission line support structures are attached as Exhibit 4. Separate maps showing any alternative routes that were considered are attached as Exhibit 5.

10. Financing of Construction. The Company expects to finance the cost of construction of the proposed facilities with internally generated funds. The Company will continue to evaluate financing alternatives during construction of the project and will seek the approval of the Commission before entering into any alternative financing as necessary. 807 KAR 5:001, Section 9(2)(e).

11. Cost of Operation. The estimated cost of operation of the proposed transmission facilities is anticipated to be de minimis. 807 KAR 5:001, Section 9(2)(f).

12. Notice to Landowners. The undersigned hereby verifies that, according to property valuation administrator records in McCracken County, each property owner over whose property the transmission line is proposed to cross has been sent by first-class mail, addressed to the property owner at the owner's address as indicated by the

McCracken County property valuation administrator records, a notice containing the information set forth in 807 KAR 5:120, Section 2(3). A sample copy of each such notice is attached hereto pursuant to 807 KAR 5:120, Section 2(4) and designated Exhibit 6. A list of the names and addresses of the landowners to whom such notice was sent is attached hereto pursuant to 807 KAR 5:120, Section 2(4) and designated Exhibit 7.

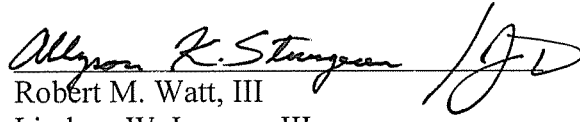
13. Newspaper Notice. Notice of the intent to construct the proposed transmission line has been published in a newspaper of general circulation in McCracken County, Kentucky, which notice included the information set forth in 807 KAR 5:120, Section 2(5). A copy of the newspaper notice for the transmission line is attached hereto pursuant to 807 KAR 5:120, Section 2(6) and designated Exhibit 8.

14. Effect on Financial Condition of Utility. The proposed project does not involve sufficient capital outlay to materially affect the financial condition of the Company. 807 KAR 5:120, Section 2(7).

WHEREFORE, Kentucky Utilities Company respectfully requests the Commission to issue an order granting it: (1) a certificate of public convenience and necessity for the construction of a 161 kV transmission line in McCracken County, Kentucky, as proposed herein; (2) the authority to make modifications to the specific route of the proposed line, within the corridor of properties identified herein, so long as the property owner on whose property the modification has been made agrees to the change, without the need to seek any further approval from this Commission; and (3) any and all other relief to which it may be entitled.

Dated: November 23, 2010

Respectfully submitted,

Handwritten signature of Allyson K. Sturgeon in black ink, written over a horizontal line.

Robert M. Watt, III
Lindsey W. Ingram, III
Stoll Keenon Ogden PLLC
300 West Vine Street, Suite 2100
Lexington, Kentucky 40507
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Allyson K. Sturgeon
Senior Corporate Attorney
LG&E and KU Services Company
220 West Main Street
Post Office Box 32010
Louisville, Kentucky 40232
Telephone: (502) 627-2088

Counsel for Kentucky Utilities Company

VERIFICATION

The undersigned, Edwin R. Staton, Director, Transmission for LG&E and KU Services Company, hereby states that he has read the foregoing Application and that the statements contained therein are true and correct to the best of my knowledge and belief this 23rd day of November 2010.



Edwin R. Staton

STATE OF KENTUCKY)
COUNTY OF JEFFERSON)

The foregoing verification was subscribed and sworn to before me by Edwin R. Staton, as Director, Transmission for LG&E and KU Services Company, on this 23rd day of November 2010.

My commission expires: September 22, 2014.



NOTARY PUBLIC



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Mr. Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

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APR 23 2010

PUBLIC SERVICE
COMMISSION

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Lonnie E. Bellar
Vice President
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April 23, 2010

Re: In the Matter of: Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in McCracken County, Kentucky –
Case No. 2010- 00164

Dear Mr. DeRouen:

Please take notice that, pursuant to KRS 278.020 and 807 KAR 5:120, Kentucky Utilities Company (“KU”) plans to file, on or after June 1, 2010, an application for a certificate of public convenience and necessity for the construction of a 161 kV transmission line approximately 1.69 miles in length in McCracken County, Kentucky, from KU’s Grahamville Substation to the transmission line of EEI near the United States Department of Energy property.

The business address and telephone number for KU is:

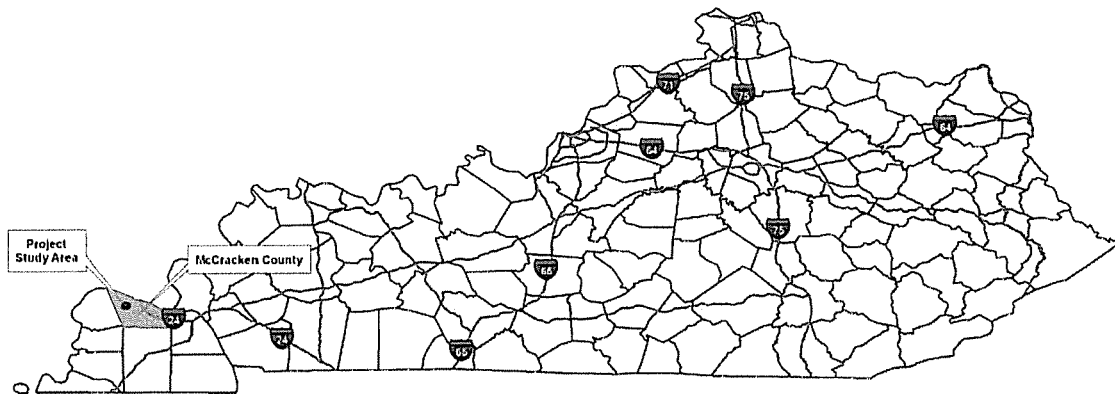
220 West Main Street
Louisville, Kentucky 40202
Telephone: (502) 627-2000

Should you have any questions, please telephone me at your earliest convenience.

Sincerely,

Lonnie E. Bellar

Route Selection Technical Report
For
E.ON - US
Grahamville – D.O.E. 161 kV
Transmission Line Project



May 3, 2010

Chris Gundry

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1. Introduction:

The EPRI/GTC Overhead Electric Transmission Line Siting Methodology was used for this project. The suitability model developed during the Kentucky workshop held on February 28th, 2006, was used to identify Alternative Corridors.

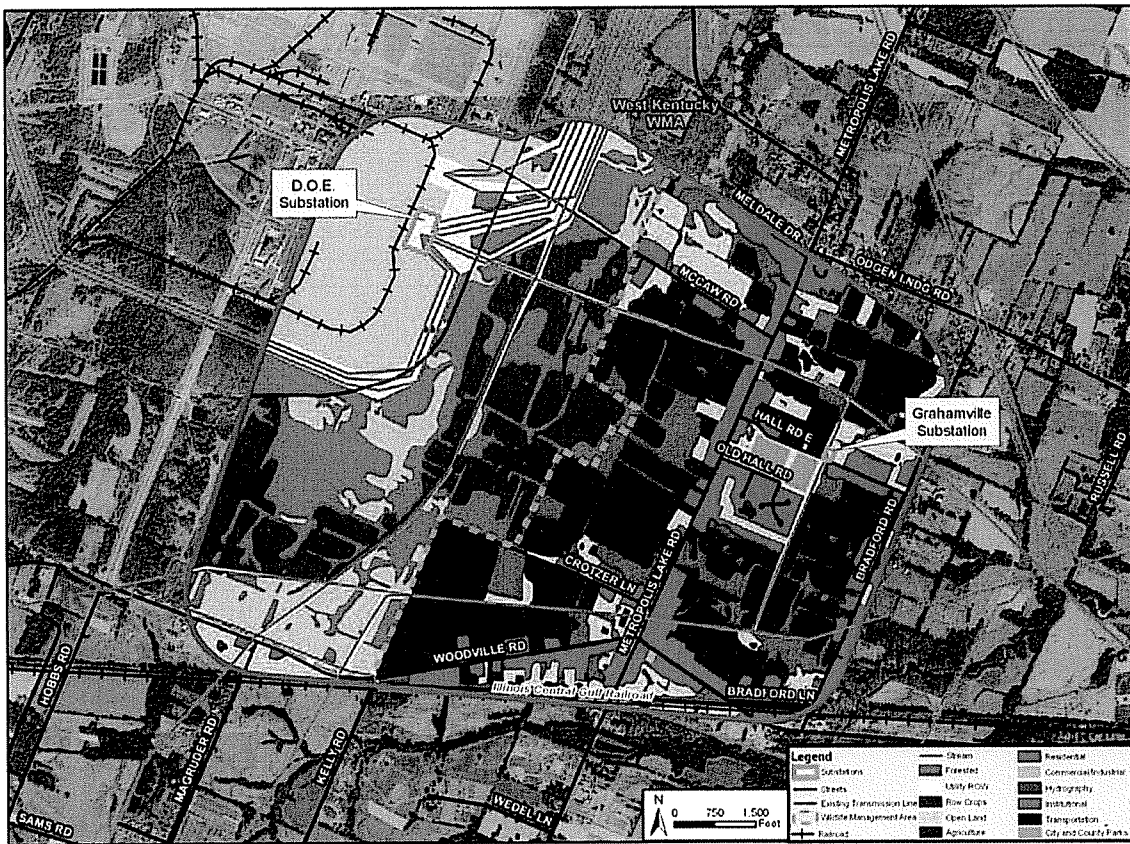
This document reports the results of this process. Any departure from the methodology or weights and values is documented, and the reason for deviation is explained in this report. Details concerning the siting methodology can be found in the document titled “EPRI – GTC Project Report: Standardized Methodology for Siting Overhead Electric Transmission Lines”. Details regarding the criteria from the workshop to calibrate the model for use in Kentucky can be found in the document titled “Kentucky Transmission Line Siting Model – Project Report”.

This project was conducted on behalf of E.ON-US. The scope of work consisted of connecting Department of Energy (D.O.E.) plant to Grahamville Substation with a 161 kV Transmission Line. This report illustrates the siting methodology that was utilized in this study. The study area is approximately 4.3 square miles and is located just to the west of the towns of Grahamville and Heath, Kentucky.

2. Study Area:

The study area is 4.3 square miles and located near West Paducah, Kentucky. The study area includes the southeastern part of West Kentucky Wildlife Management Area, a railroad and existing transmission line corridors. Figure 1 shows the study area with land use – land cover data over aerial photography.

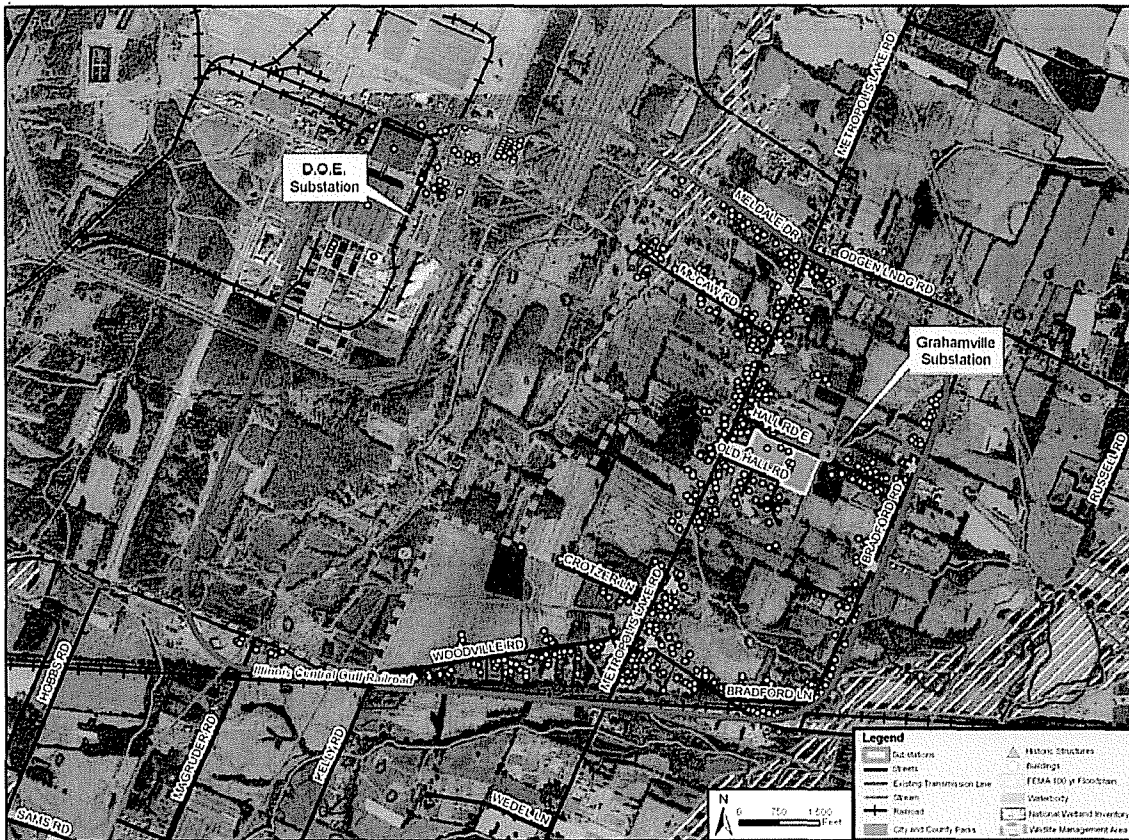
Figure 1 – Study Area



3. Alternative Corridors:

Once the Study Area was identified, detailed datasets were developed for siting purposes. The primary source for project specific data was aerial photography flown by Photo Science in November, 2008 (see Figure 2 for an example of some of the data collected). Weights and values used to build the suitability models were assigned based on the results of the Kentucky Transmission Line Siting Model workshop.

Figure 2 –Example of the Data Used to Create the Suitability Models



The chart on page 5 (Table 1) shows the criteria that were present in the study area and their adjusted weights and values. When some criteria are not present in a study area, the weights and values must be adjusted. Weights for layers (green items) that are present in the study area must equal 100%. Each layer must have at least one feature (yellow items) with a suitability value of 1 and one with a value of 9. This gives statistical soundness to the suitability models that are derived from adding these perspectives together and ensures that some layers and features hold the intensity within the suitability models that the stakeholders intended. Layers and features not present in this study area are shown in gray on the model. Figures 3a, 3b, 3c, & 3d illustrate the suitability models for each perspective that are used to create the Alternative Corridors.

One particular feature that may require further explanation as to its omission from this study is Barkley Regional Airport, which is located approximately one mile southeast of the study area. According to the Siting Methodology Standards, airport features are considered to be avoidance areas. As far as defining the areas associated with an airport to exclude from possible transmission line siting, the airport property itself is subject to exclusion, but not a predetermined buffer area of that property. Possible flight paths, however, can be included with the airport property if the existence of transmission facilities would hinder the approach of aircrafts. In some cases, the presence of an airport one mile from the study area might be cause to include its associated flight paths areas as avoidances. In this study area, however, the fact that the Grahamville and DOE Substations are just 2 and 3 miles away from Barkley Regional Airport, respectively, as well as the presence of existing transmission lines closer in proximity to the airport than the proposed facility would be, were reasons why the airport and its associated flight paths were not considered as an avoidance area. The affect that the proposed facilities would have on the function of the airport were considered to be nil given the above rationale.

Table 1 – Project Specific Criteria for Alternative Corridor Analysis

Grahamville - DOE Kentucky Transmission Line Siting Model					
Co-location / Engineering		Natural Environment		Built Environment	
Linear Infrastructure	100.0%	Floodplain	4.6%	Proximity to Buildings	17.5%
Parallel Existing Transmission Lines	1	Outside of Floodplain	1	>1200'	1
Rebuild Existing Transmission Lines (good)	2.5	100 Year Floodplain	9	900'-1200'	3.4
No Linear Infrastructure	5.4	Streams/Wetlands	29.2%	600'-900'	5.7
Parallel Interstates ROW		No Streams/Wetlands	1	300'-600'	8
Parallel Roads ROW	6.7	Streams < 5cfs+ Regulatory Buffer	6.4	0-300'	9
Parallel Pipelines		Rivers/Streams > 5cfs+ Regulatory Buffer		Building Density	87.7%
Future DOT Plans		Wetlands + 30' Buffer	9	0 - 0.05 Buildings/Acre	1
Parallel Railway ROW	7.6	Outstanding State Resource Waters		0.05 - 0.2 Buildings/Acre	3.1
Road ROW	9	Public Lands	17.7%	0.2 - 1 Buildings/Acre	5.9
Rebuild Existing Transmission Lines (bad)	8.6	No Public Lands	1	1 - 4 Buildings/Acre	9
Scenic Highways ROW	9	WMA - Not State Owned		> 4 Buildings/Acre	
Slope		USFS (proclamation area)		Proposed Development	
Slope 0-15%	1	Other Conservation Land		No Proposed Development	1
Slope 15-30%	4	USFS (actually owned)		Proposed Development	9
Slope 30-40%	6.7	State Owned Conservation Land	9	Spannable Lakes and Ponds	4.2%
Slope >40%	9	Land Cover	19.3%	Dry Land	1
AVOIDANCE AREAS		Developed Land	1	Spannable Lakes and Ponds	9
Non-Spannable Waterbodies		Agriculture	4.6	Land Use	37.4%
Mines and Quarries (Active)		Forests	9	Commercial/Industrial	1
Buildings		Wildlife Habitat	29.7%	Agriculture (crops)	3.5
Airports		No Species of Concern Habitat	1	Agriculture (other livestock)	4.6
Military Facilities		Species of Concern Habitat	9	Silviculture	6
Center Pivot Irrigation		AVOIDANCE AREAS		Other (forest)	6.7
		EPA Superfund Sites		Equine Agri - Tourism	
		State and National Parks		Residential	9
		USFS Wilderness Area		Proximity to Eligible Historic and Archeological Sites	32.3%
		Wild/Scenic Rivers		>1200'	1
		Wildlife Refuge		900'-1200'	4.6
		State Nature Preserves		600'-900'	7.9
		Designated Critical Habitat		0-300'	8.6
				300'-600'	9
				AVOIDANCE AREAS	
				Listed Archaeology Sites & Dist.	
				Listed NRHP Districts and Buildings	
				City and County Parks	
				Day Care Parcels	
				Cemetery Parcel s	
				School Parcels (K-12)	
				Church Parcels	

Figure 3a – Built Perspective Suitability Model



Figure 3b – Natural Perspective Suitability Model

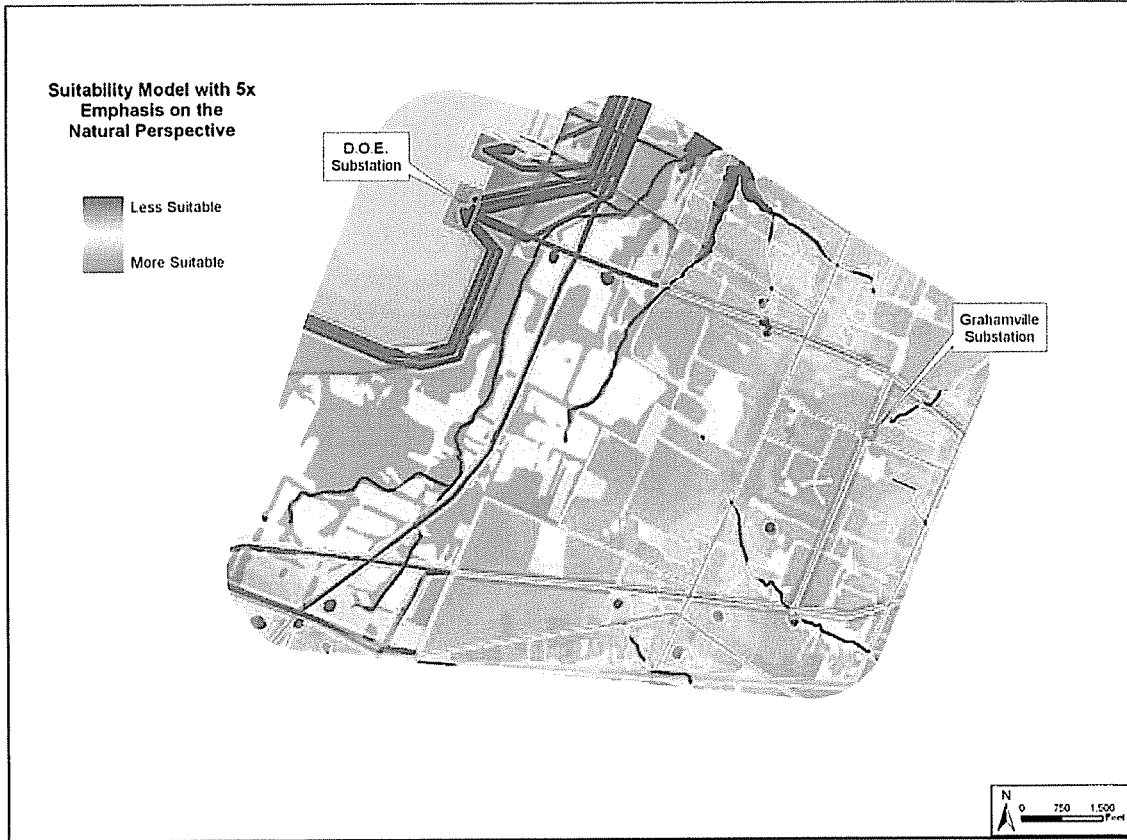


Figure 3c – Engineering Perspective Suitability Model

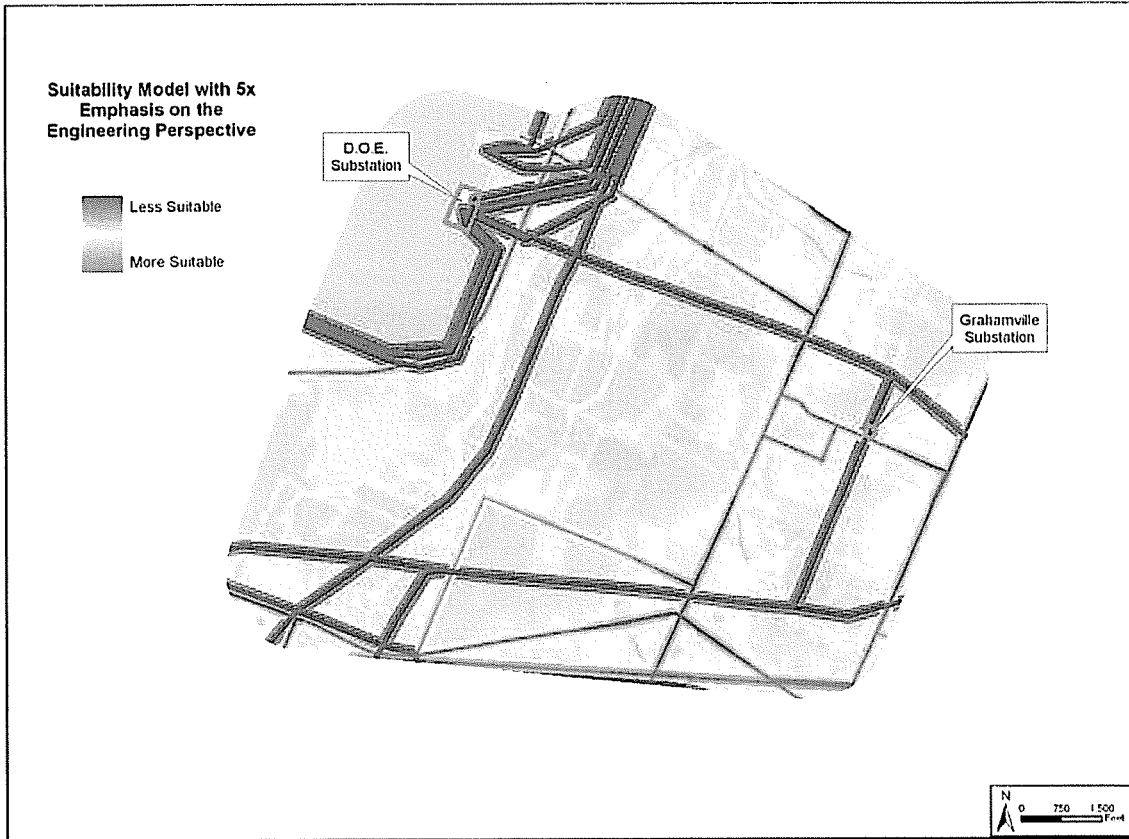
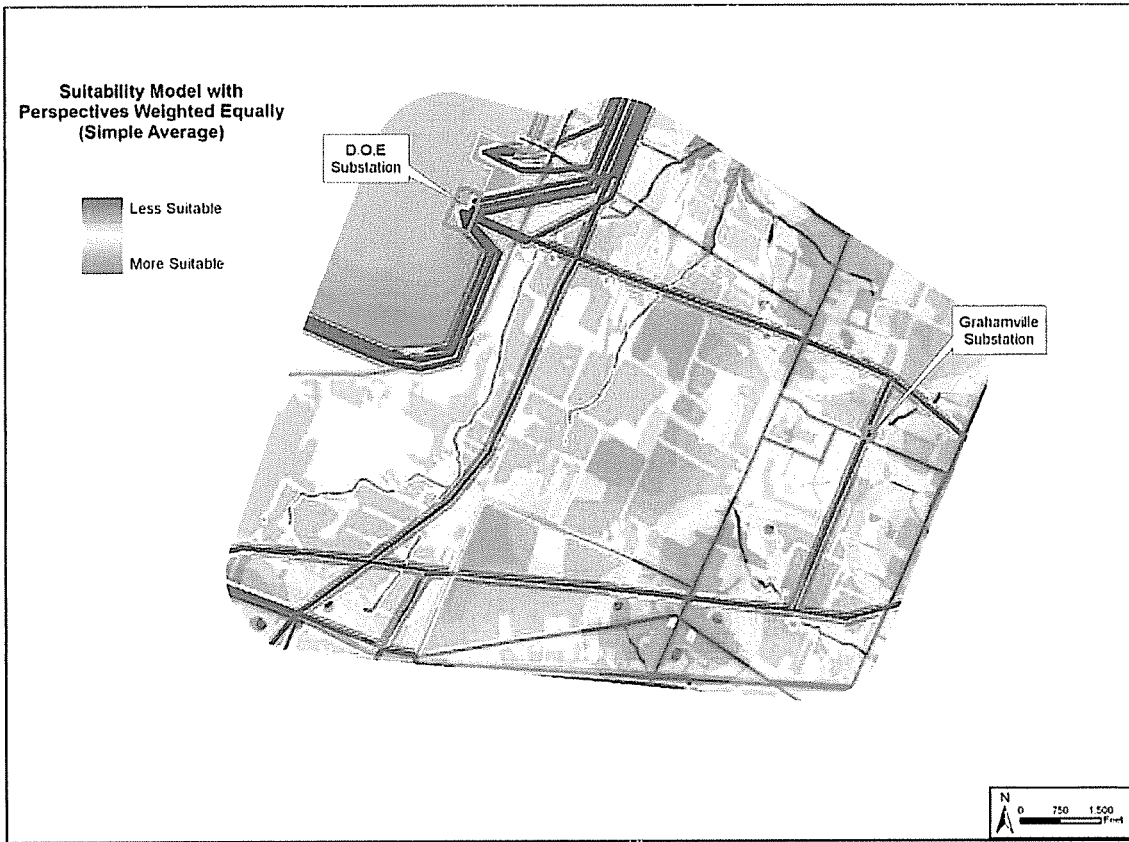


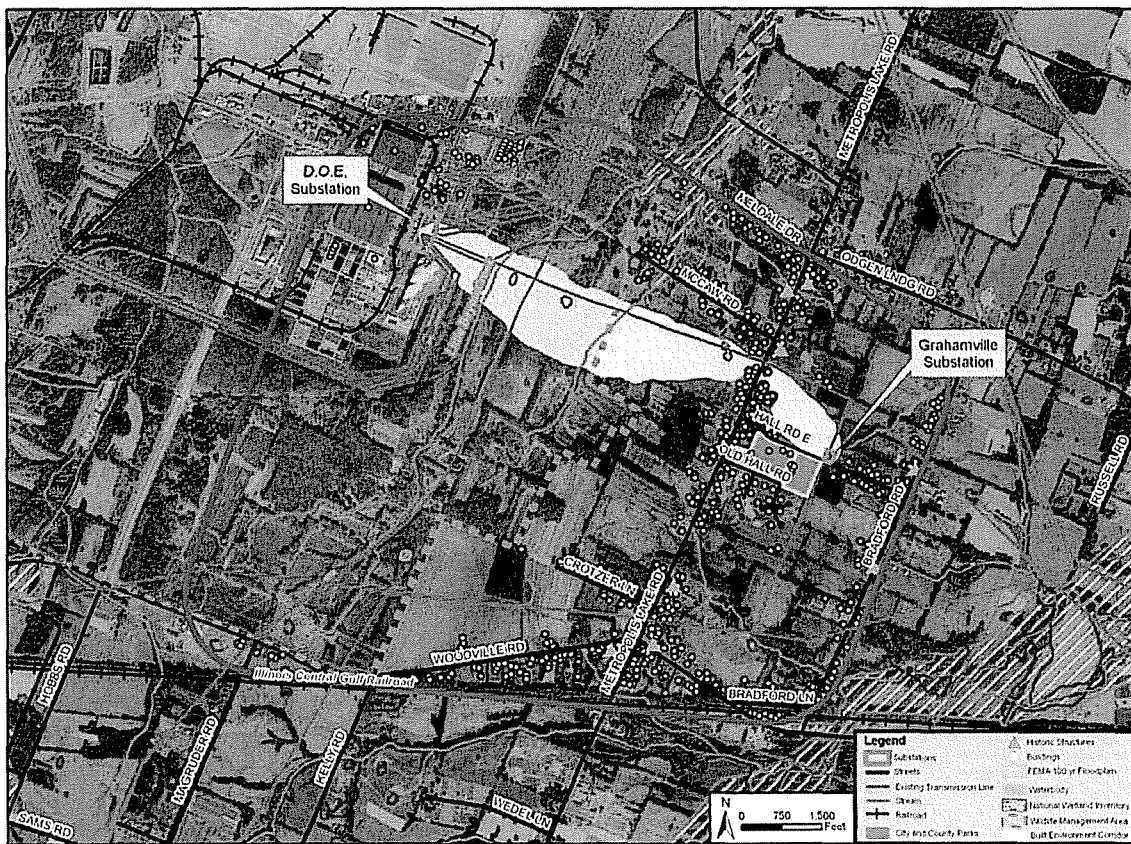
Figure 3d – Simple Average Perspective Suitability Model



3.1. Built Environment Corridor:

The Built Corridor is primarily cross-country with a large amount of co-location with an existing 161 kV transmission line. The Corridor leaves the existing Grahamville substation in a northwestern direction, traveling approximately 0.4 miles towards the existing 161 kV transmission line. Then it parallels the existing cross county transmission line for approximately 1.3 miles until it gets to D.O.E. substation. The corridor widens towards southwest right after it leaves the congested residential area along Metropolis Lake Road. Overall, the Built Perspective Corridor crosses three streams and two streets. The general length of this corridor is approximately 1.7 miles.

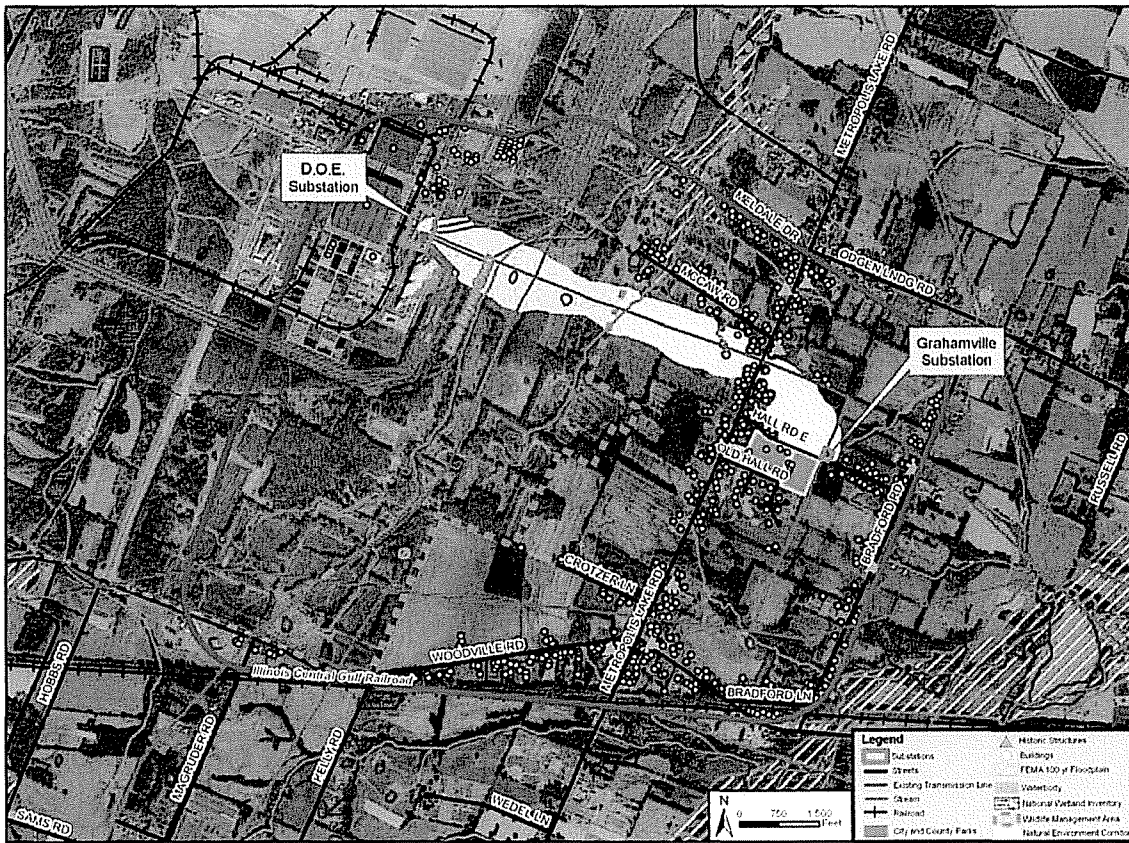
Figure 4 – Built Environment Alternative Corridor



3.2. Natural Environment Corridor:

The Natural Environment Corridor is similar to the built corridor. The corridor leaves the existing Grahamville Substation in a northwestern direction and travels approximately 0.4 miles to the existing 161 kV transmission line corridor where it crosses the Metropolis Lake Road. The rest of the corridor is very similar to built corridor except it is more slender than built corridor. Overall, the Natural Perspective Corridor crosses three streams and two streets. The general length of this corridor is approximately 1.7 miles.

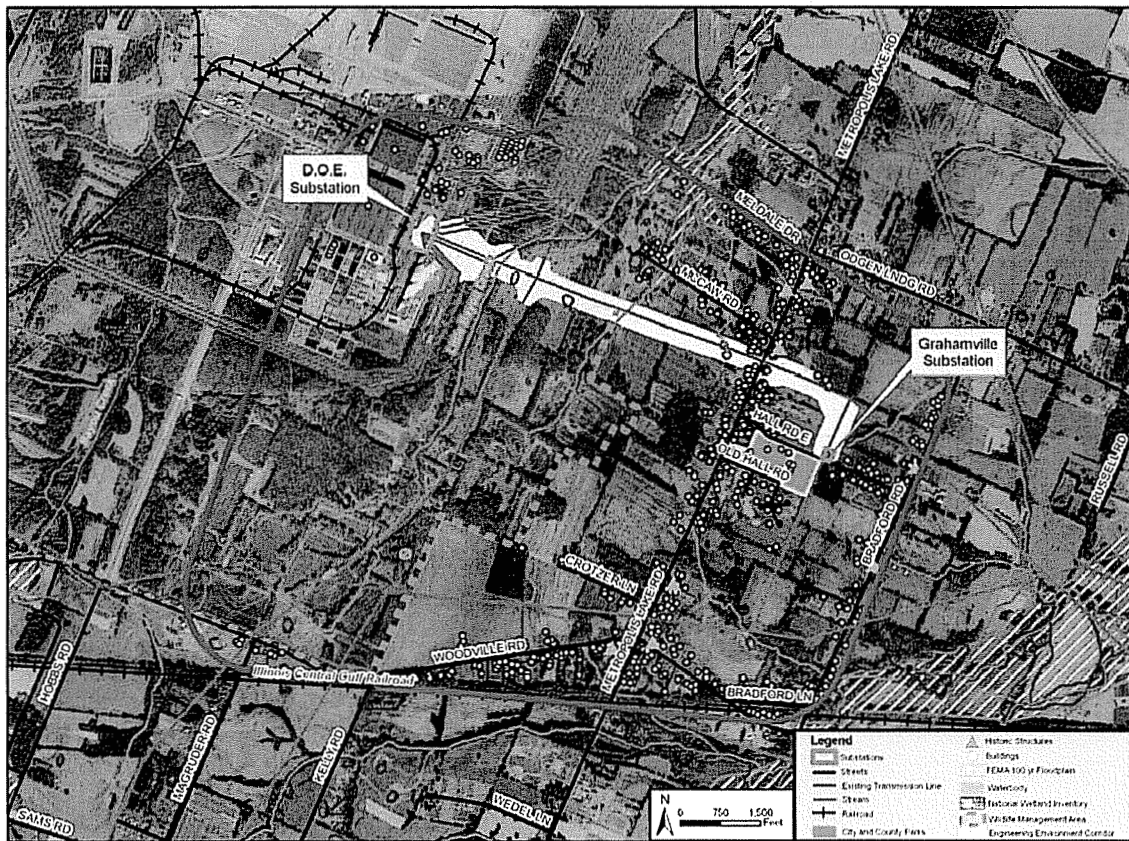
Figure 5 – Natural Environment Alternative Corridor



3.3. Engineering Concerns Corridor:

The Engineering Concerns Corridor is little different in the beginning comparing to Built and Natural Perspective Corridors. The corridor leaves the existing Grahamville Substation in a northeastern direction and travels approximately 0.2 miles with the existing 161 kV transmission line corridor where it makes a sharp turn towards northwest. From this point to all the way to the Department of Energy Substation the corridor stays with the existing 161 kV transmission line corridor. It crosses the Metropolis Lake Road and three streams. The general length of this corridor is approximately 1.9 miles.

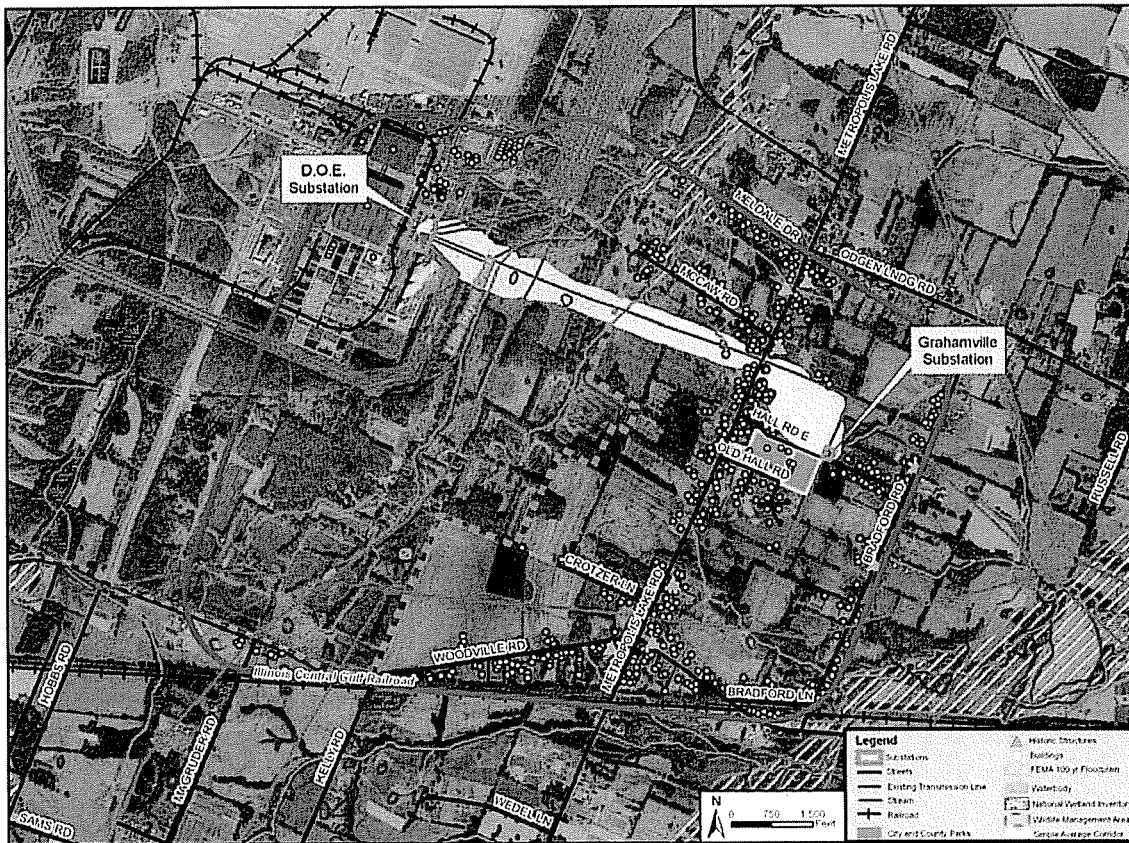
Figure 6 – Engineering Concerns Alternative Corridor



3.4. Simple Average Corridor:

Simple Average Corridor mimics the Built and Natural Environment Corridors east of Metropolis Lake Road as it leaves the Grahamville Substation with a cross-country path. Once it reaches Metropolis Lake Road, travelling west, it takes an attributes of the Engineering Corridor, as it follows the existing 161 kV transmission line with a narrow pathway. The general length of this corridor is approximately 1.7 miles (See Figure 7).

Figure 7 – Simple Average Alternative Corridor

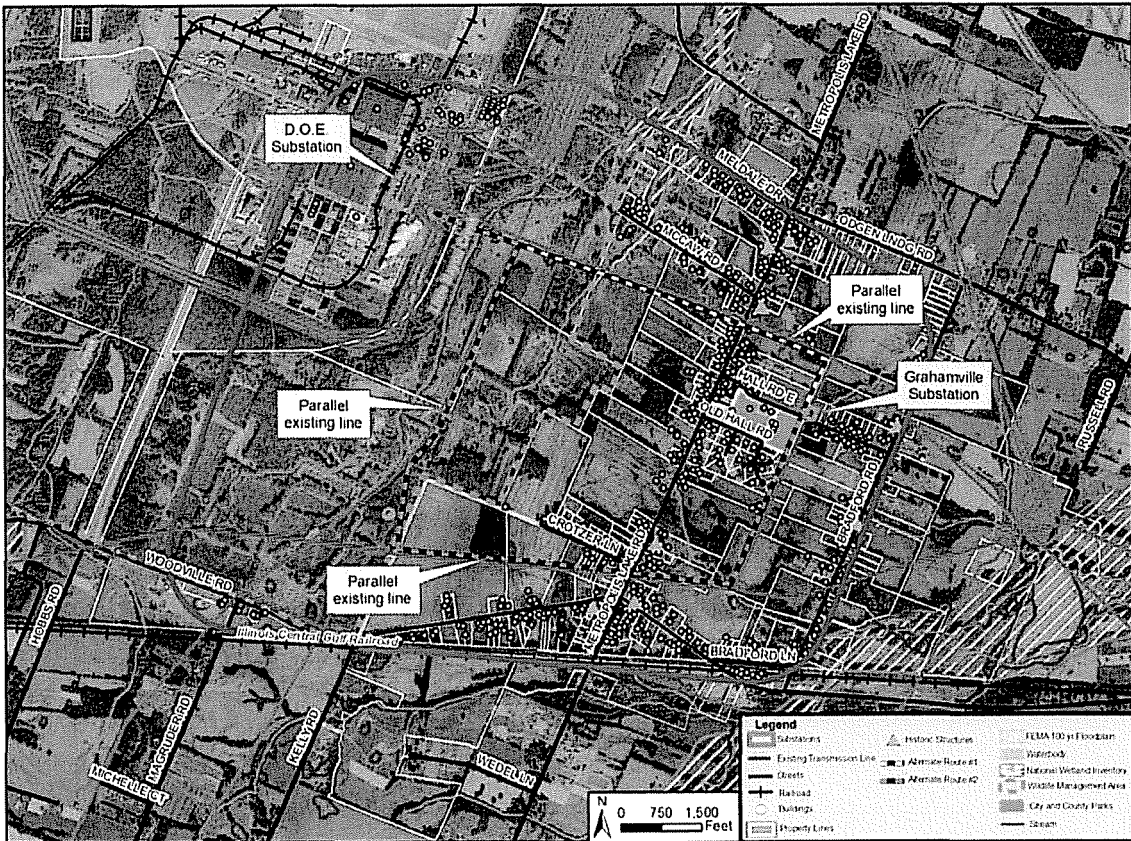


4. Alternate Routes:

After analysis of the Alternate Corridors, the routing team identified two Alternate Routes that would be evaluated using the Alternative Route Evaluation Matrix.

The two alternate routes, numbered 1 and 2, that were selected for further analysis are shown below in Figure 8.

Figure 8 – Alternate Routes



5. Alternate Route Evaluation:

Statistics were collected for each route and then divided into three categories similar to the Alternative Corridor perspectives (Built Environment, Natural Environment, and Engineering Considerations). The statistics were normalized (see Table 2) and weights were applied as determined by E.ON-US internal stakeholders. Likewise, emphasis was applied to each of the perspectives (see Tables 4, 5, 6, and 7).

This analysis is designed to rank the routes in terms of their impacts to each of the three environments (Built, Natural and Engineering), as well as an average impact to all environments equally (Simple average).

Once these rankings are made, the routing team will choose a Preferred Route.

Table 2 – Raw Statistics and Normalized Statistics

NORMALIZED DATA FOR ALL ROUTES		
	Route 1	Route 2
Segments		
Built		
Feature	Unit	Unit
Relocated Residences (within 75' Corridor)	2.00	3.00
<i>Normalized</i>	0.00	1.00
Proximity to Residences (300')	8.00	15.00
<i>Normalized</i>	0.00	1.00
Proposed Residential Developments	0.00	0.00
<i>Normalized</i>	0.00	0.00
Proximity to Commercial Buildings (300')	1.00	0.00
<i>Normalized</i>	1.00	0.00
Proximity to Industrial Buildings (300')	0.00	0.00
<i>Normalized</i>	0.00	0.00
School, DayCare, Church, Cemetery, Park Parcels (#)	0.00	1.00
<i>Normalized</i>	0.00	1.00
NRHP Listed/Eligible Strucs./Districts (1500' from edge of R/W)	2.00	3.00
<i>Normalized</i>	0.00	1.00
Natural		
Natural Forests (Acres)	4.67	9.03
<i>Normalized</i>	0.00	1.00
Stream/River Crossings	3.00	2.00
<i>Normalized</i>	1.00	0.00
Wetland Areas (Acres)	0.77	0.25
<i>Normalized</i>	1.00	0.00
Floodplain Areas (Acres)	0.00	0.00
<i>Normalized</i>	0.00	0.00
Engineering		
Length (Miles)	1.71	3.39
<i>Normalized</i>	0.00	1.00
Percent of Rebuild with Existing T/L*	0.00%	0.00%
<i>Normalized</i>	0.00	0.00
<i>Inverted</i>	0.00	0.00
Percent of Co-location with Existing Utility*	100.00%	91.50%
<i>Normalized</i>	1.00	0.00
<i>Inverted</i>	0.00	1.00
Percent of Co-location with Roads*	0.00%	0.00%
<i>Normalized</i>	0.00	0.00
<i>Inverted</i>	0.00	0.00
Number of Parcels	12	33
<i>Normalized</i>	0.00	1.00
Total Project Costs	\$2,948,073	\$5,480,661
<i>Normalized</i>	0.00	1.00

Figure 9 compares the differences between the numbers of parcels crossed for the two route alternatives while Figure 10 illustrates the relative costs for each route.

Figure 9 – Number of Parcels Crossed

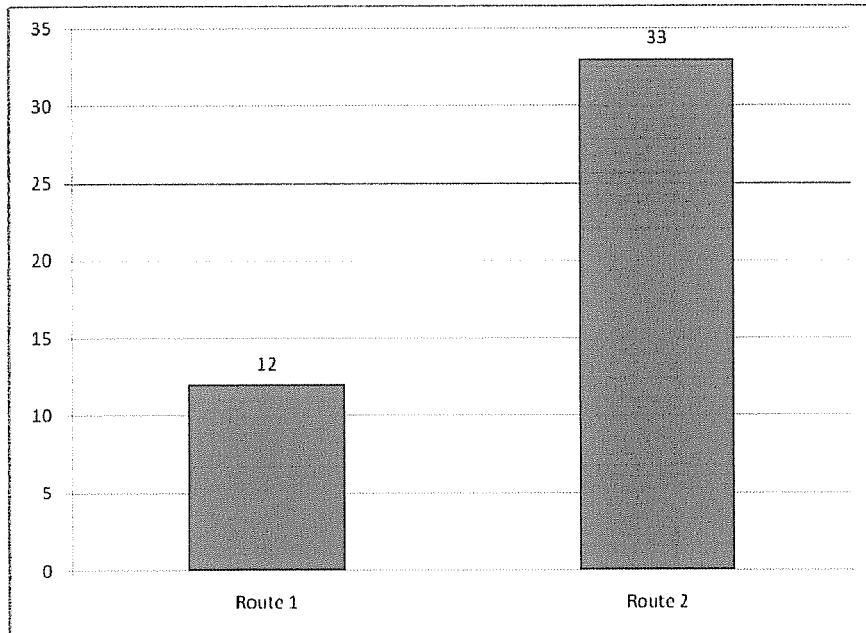
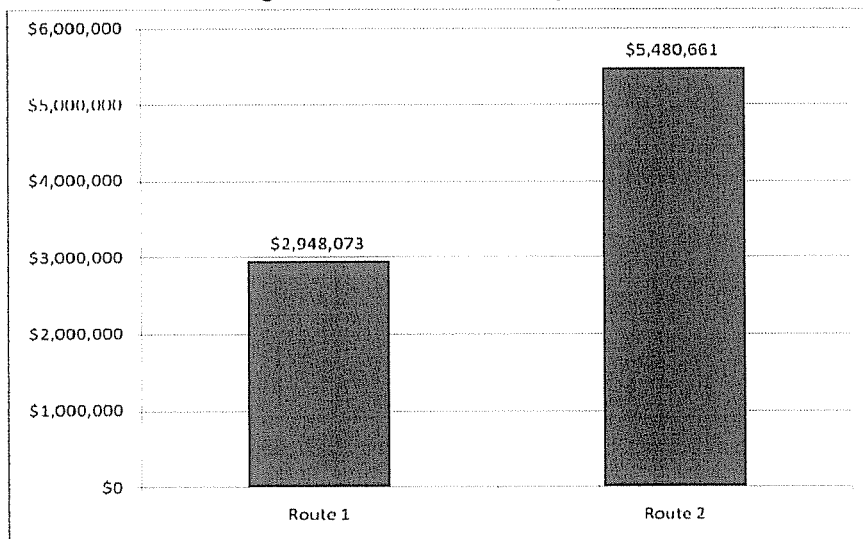


Figure 10 – Relative Cost Comparison



The relative cost calculations were determined based on easement, construction, angle and clearing costs. Easement cost was calculated by using an assumption of \$11,000 per acre of

private property. Construction cost was calculated on a per mile basis for each route. Angles were calculated with an assumed dollar amount for each deflection angle. The costs of each angle were determined by its size, as those greater than 30 degrees were considered large angles and those less than 30 degrees were considered as small angles. Clearing costs were based on the acreage of forested land that each route easement crossed. Land, angle, clearing and construction costs were added together and the sum for each Route was listed (See Table 3).

Table 3 – Cost Calculation Assumptions

	<u>Unit Cost</u>
Construction Costs	\$775,000 per mile
> 30° angles	\$250,000 per angle
< 30° angles	\$125,000 per angle
Clearing Costs	\$4,000 per acre of forested land
Easement Costs	\$11,000 per acre

The following tables (Tables 4 – 7) illustrate Alternative Route Evaluation Matrix Emphasis on Built Environment, Engineering Concerns, Natural Environment and Simple Average. Each table shows Built, Natural, and Engineering Criteria and its weighted values. Weights for each feature that is present in this study are shown in blue. If there is no occurrence of a feature for any route, that row is shown in gray and the respective weight value is proportionately redistributed among the features which are present.

Table 4 – Alternative Route Evaluation Matrix Emphasis on Built Environment

Built Emphasis

FOR ALL ROUTES		Weights	
RANK		1	2
Built	72%	Route 1	Route 2
Segments			
Feature		Unit	Unit
Relocated Residences (within 75' Corridor)	47.7%	0.00	1.00
<i>Weighted</i>		0.00	0.48
Proximity to Residences (300')	14.1%	0.00	1.00
<i>Weighted</i>		0.00	0.14
Proposed Residential Developments		0.00	0.00
<i>Weighted</i>		0.00	0.00
Proximity to Commercial Buildings (300')	3.9%	1.00	0.00
<i>Weighted</i>		0.04	0.00
Proximity to Industrial Buildings (300')		0.00	0.00
<i>Weighted</i>		0.00	0.00
School, DayCare, Church, Cemetery, Park Parcels (#)	17.6%	0.00	1.00
<i>Weighted</i>		0.00	0.18
NRHP Listed/Eligible Strucs./Districts (1500' from edge of R/W)	16.7%	0.00	1.00
		0.00	0.17
TOTAL	100.0%	0.04	0.48
WEIGHTED TOTAL		0.03	0.35
Natural	14%		
Natural Forests (Acres)	10.6%	0.00	1.00
<i>Weighted</i>		0.00	0.11
Stream/River Crossings	43.4%	1.00	0.00
<i>Weighted</i>		0.43	0.00
Wetland Areas (Acres)	46.0%	1.00	0.00
<i>Weighted</i>		0.46	0.00
Floodplain Areas (Acres)		0.00	0.00
<i>Weighted</i>		0.00	0.00
TOTAL	100.0%	0.89	0.11
WEIGHTED TOTAL		0.13	0.01
Engineering	14%		
Percent of Rebuild with Existing T/L*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Percent of Co-location with Existing TL*	72.2%	0.00	1.00
<i>Weighted</i>		0.00	0.72
Percent of Co-location with Roads*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Total Project Costs	27.8%	0.00	1.00
<i>Weighted</i>		0.00	0.28
TOTAL	100.0%	0.00	1.00
WEIGHTED TOTAL		0.00	0.14
SUM OF WEIGHTED TOTALS		0.15	0.50
RANK		1	2

* Inverted for calculations

Lowest Number is Best

Table 5 – Alternative Route Evaluation Matrix Emphasis on Engineering Environment

Engineering Emphasis

FOR ALL ROUTES		Weights	
RANK		1	2
Built	14%	Route 1	Route 2
Segments			
Feature		Unit	Unit
Relocated Residences (within 75' Corridor)	47.7%	0.00	1.00
<i>Weighted</i>		0.00	0.48
Proximity to Residences (300')	14.1%	0.00	1.00
<i>Weighted</i>		0.00	0.14
Proposed Residential Developments		0.00	0.00
<i>Weighted</i>		0.00	0.00
Proximity to Commercial Buildings (300')	3.9%	1.00	0.00
<i>Weighted</i>		0.04	0.00
Proximity to Industrial Buildings (300')		0.00	0.00
<i>Weighted</i>		0.00	0.00
School, DayCare, Church, Cemetery, Park Parcels (#)	17.6%	0.00	1.00
<i>Weighted</i>		0.00	0.18
NRHP Listed/Eligible Strucs./Districts (1500' from edge of R/W)	16.7%	0.00	1.00
		0.00	0.17
TOTAL	100.0%	0.04	0.48
WEIGHTED TOTAL		0.01	0.07
Natural	14%		
Natural Forests (Acres)	10.6%	0.00	1.00
<i>Weighted</i>		0.00	0.11
Stream/River Crossings	43.4%	1.00	0.00
<i>Weighted</i>		0.43	0.00
Wetland Areas (Acres)	46.0%	1.00	0.00
<i>Weighted</i>		0.46	0.00
Floodplain Areas (Acres)		0.00	0.00
<i>Weighted</i>		0.00	0.00
TOTAL	100.0%	0.89	0.11
WEIGHTED TOTAL		0.13	0.01
Engineering	72%		
Percent of Rebuild with Existing T/L*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Percent of Co-location with Existing TL*	72.2%	0.00	1.00
<i>Weighted</i>		0.00	0.72
Percent of Co-location with Roads*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Total Project Costs	27.8%	0.00	1.00
<i>Weighted</i>		0.00	0.28
TOTAL	100.0%	0.00	1.00
WEIGHTED TOTAL		0.00	0.72
SUM OF WEIGHTED TOTALS		0.13	0.80
RANK		1	2

* Inverted for calculations

Lowest Number is Best

Table 6 – Alternative Route Evaluation Matrix Emphasis on Natural Environment

Natural Env. Emphasis

FOR ALL ROUTES		Weights	
RANK		2	1
Built	14%	Route 1	Route 2
Segments			
Feature		Unit	Unit
Relocated Residences (within 75' Corridor)	47.7%	0.00	1.00
<i>Weighted</i>		0.00	0.48
Proximity to Residences (300')	14.1%	0.00	1.00
<i>Weighted</i>		0.00	0.14
Proposed Residential Developments		0.00	0.00
<i>Weighted</i>		0.00	0.00
Proximity to Commercial Buildings (300')	3.9%	1.00	0.00
<i>Weighted</i>		0.04	0.00
Proximity to Industrial Buildings (300')		0.00	0.00
<i>Weighted</i>		0.00	0.00
School, DayCare, Church, Cemetery, Park Parcels (#)	17.6%	0.00	1.00
<i>Weighted</i>		0.00	0.18
NRHP Listed/Eligible Strucs./Districts (1500' from edge of R/W)	16.7%	0.00	1.00
		0.00	0.17
TOTAL	100.0%	0.04	0.48
WEIGHTED TOTAL		0.01	0.07
Natural	72%		
Natural Forests (Acres)	10.6%	0.00	1.00
<i>Weighted</i>		0.00	0.11
Stream/River Crossings	43.4%	1.00	0.00
<i>Weighted</i>		0.43	0.00
Wetland Areas (Acres)	46.0%	1.00	0.00
<i>Weighted</i>		0.46	0.00
Floodplain Areas (Acres)		0.00	0.00
<i>Weighted</i>		0.00	0.00
TOTAL	100.0%	0.89	0.11
WEIGHTED TOTAL		0.64	0.08
Engineering	14%		
Percent of Rebuild with Existing T/L*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Percent of Co-location with Existing TL*	72.2%	0.00	1.00
<i>Weighted</i>		0.00	0.72
Percent of Co-location with Roads*		0.00	0.00
<i>Weighted</i>		0.00	0.00
Total Project Costs	27.8%	0.00	1.00
<i>Weighted</i>		0.00	0.28
TOTAL	100.0%	0.00	1.00
WEIGHTED TOTAL		0.00	0.14
SUM OF WEIGHTED TOTALS		0.65	0.28
RANK		2	1

* Inverted for calculations

Lowest Number is Best

Table 7 – Alternative Route Evaluation Matrix Equal Consideration of Categories

Simple Average

FOR ALL ROUTES		Weights	
RANK		1	2
Built	33%	Route 1	Route 2
Segments			
	Feature	Unit	Unit
	Relocated Residences (within 75' Corridor)	47.7%	0.00
	<i>Weighted</i>		0.00
	Proximity to Residences (300')	14.1%	1.00
	<i>Weighted</i>		0.00
	Proposed Residential Developments		0.14
	<i>Weighted</i>		0.00
	Proximity to Commercial Buildings (300')	3.9%	0.00
	<i>Weighted</i>		1.00
	Proximity to Industrial Buildings (300')		0.04
	<i>Weighted</i>		0.00
	School, DayCare, Church, Cemetery, Park Parcels (#)		0.00
	<i>Weighted</i>	17.6%	1.00
	NRHP Listed/Eligible Strucs./Districts (1500' from edge of R/W)		0.00
	<i>Weighted</i>		0.18
		16.7%	0.00
			1.00
			0.00
			0.17
	TOTAL	100.0%	0.04
	WEIGHTED TOTAL		0.48
			0.01
			0.16
	Natural	33%	
	Natural Forests (Acres)	10.6%	0.00
	<i>Weighted</i>		1.00
	Stream/River Crossings	43.4%	0.00
	<i>Weighted</i>		0.00
	Wetland Areas (Acres)	46.0%	1.00
	<i>Weighted</i>		0.43
	Floodplain Areas (Acres)		0.00
	<i>Weighted</i>		0.46
			0.00
			0.00
	TOTAL	100.0%	0.89
	WEIGHTED TOTAL		0.11
			0.29
			0.04
	Engineering	33%	
	Percent of Rebuild with Existing TL*		0.00
	<i>Weighted</i>		0.00
	Percent of Co-location with Existing TL*	72.2%	0.00
	<i>Weighted</i>		1.00
	Percent of Co-location with Roads*		0.00
	<i>Weighted</i>		0.72
	Total Project Costs	27.8%	0.00
	<i>Weighted</i>		0.00
			1.00
			0.28
	TOTAL	100.0%	0.00
	WEIGHTED TOTAL		1.00
			0.00
	SUM OF WEIGHTED TOTALS		0.33
			0.31
			0.52
	RANK		1
			2

* Inverted for calculations

Lowest Number is Best

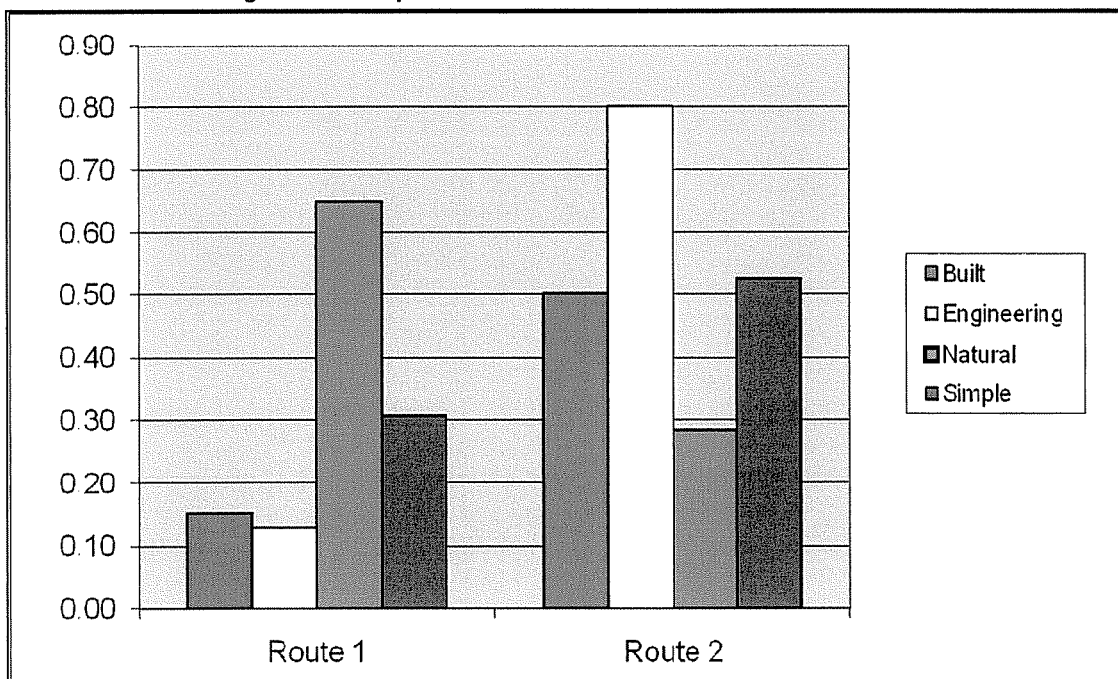
After evaluating the two route alternatives, Route 1 was determined to be the most suitable (Figure 11). This route scored remarkably better in the Built and Engineering Environments. Within the Built Environment, this route has 2 occupied houses within the proposed Right-of-Way whereas Route 2 has 3 occupied houses. Additionally, Route 2 is within 300' of 15 houses and Route 1 is within 300' of just 8. Another major difference between these routes is that Route 2 crosses a city park just to the south of the Grahamville Substation.

Within the Engineering Environment, Route 1 is statistically more desirable for a number of reasons. Most notably, Route 2 is nearly twice as long as Route 1 (3.39 miles and 1.71 miles, respectively). Also, Route 1 is 100% co-located with existing transmission lines while Route 2 has a section of a little over a quarter of a mile that is cross-country. Route 2 also crosses 33 parcels while Route 1 crosses just 12 and the costs associated with the construction of Route 2 are considerably higher.

Route 2 scores better than Route 1 in the Natural Environment, however. While Route 2 impacts almost twice as much natural forest area (9.03 acres and 4.67 acres respectively), it has fewer stream crossings (2 to Route One's 3) and impacts only 0.25 acres of NWI wetland area while Route 1 impacts 0.77 acres.

Due to the overwhelming statistical superiority of Route 1 in almost all of the categories, this route is also more desirable in the Simple Average Environment. While the contrast isn't as sharp as it is in the Built and Engineering Environments, Route 1 is still far less impactful than Route 2, statistically speaking.

Figure 11 – Comparison of Alternative Route Evaluation Matrices



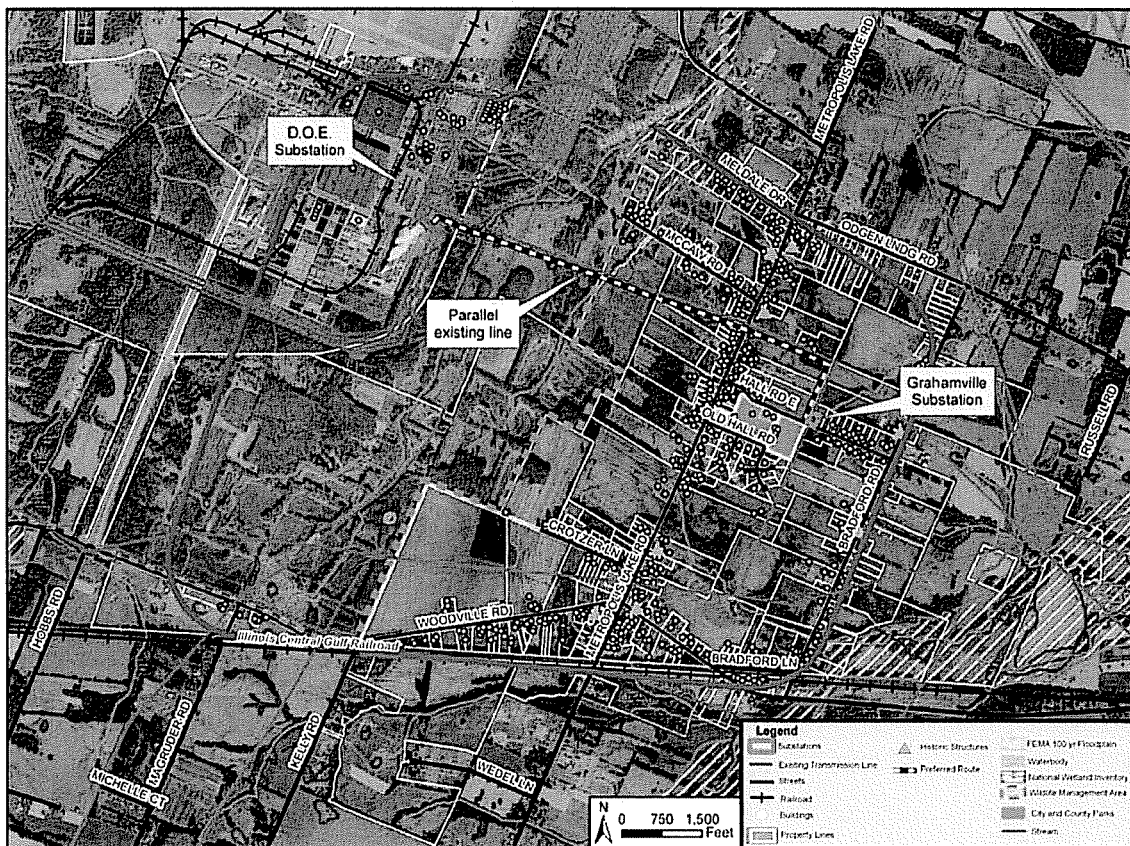
6. Preferred Route:

After analysis of the Alternate Corridors and the Alternate Route Statistics, the routing team identified Route 1 as the Preferred Route.

With consideration of the opportunity to co-locate with existing transmission lines for the entire length of the new line, as well as the possibility to relocate fewer occupied residences, Route 1 was clearly identified as the better opportunity. This route fell entirely within the alternative corridors, affects far fewer properties as well as avoids the park south of the Grahamville Substation.

Figure 12 shows preferred route with some of the project data used to develop this route.

Figure 12 – Preferred Route



7. Conclusion:

After consideration of the Alternative Corridor study and the Statistical Analysis, it is clear that the preferred route is the best option to connect the Grahamville Substation to Department of Energy substation.

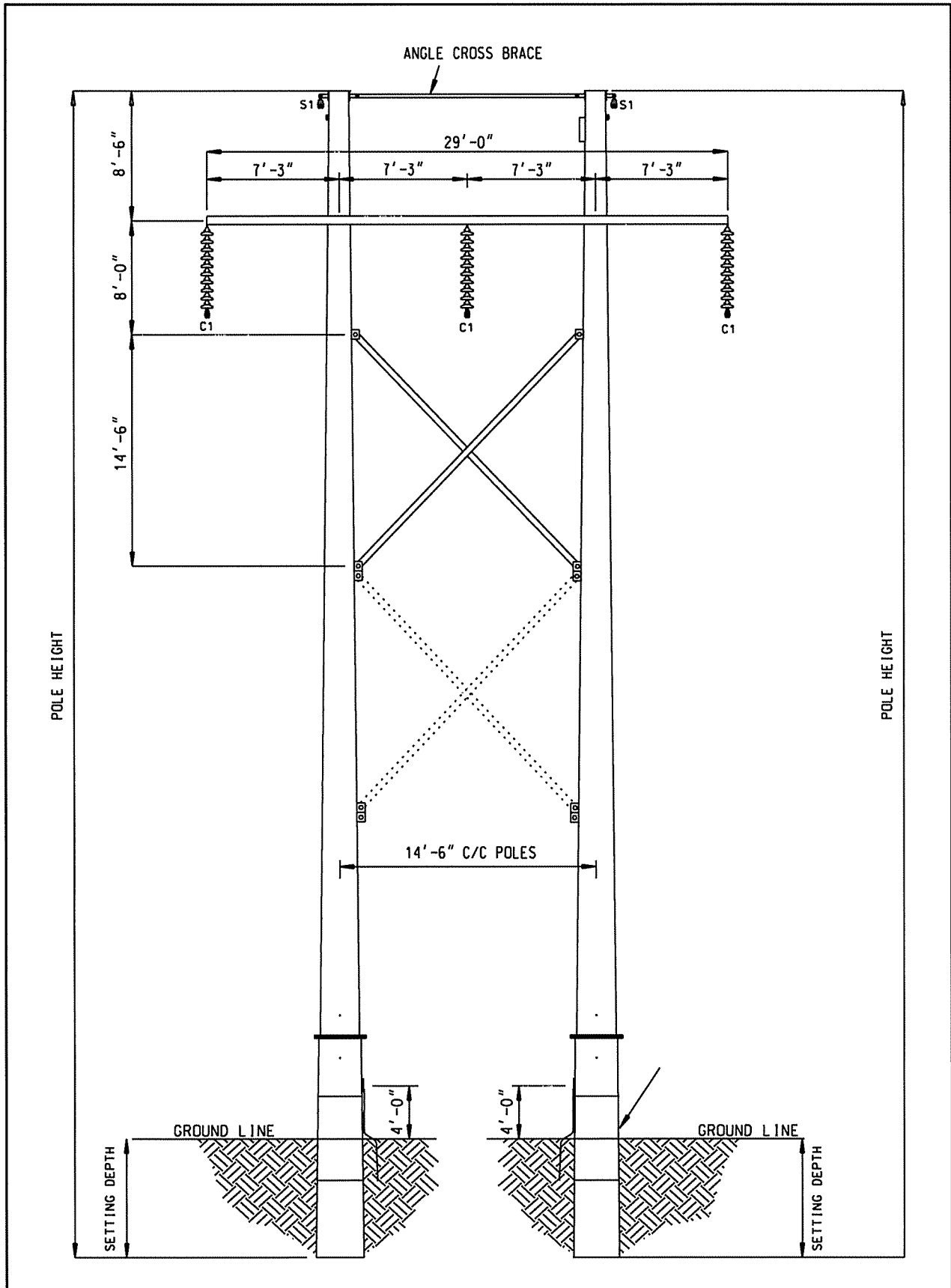
CASE NO: 2010-00164

CONTAINS

LARGE OR OVERSIZED

MAP(S)

RECEIVED ON: November 23, 2010



CASE NO: 2010-00164

CONTAINS

LARGE OR OVERSIZED

MAP(S)

RECEIVED ON: November 23, 2010

November 3, 2010

RE: Notice of Proposed Construction of Electric Transmission Line

Dear

Kentucky Utilities Company (“KU”) plans on constructing a 161,000 volt electric transmission line from our Grahamville Substation in McCracken County to the EEI transmission line near the Department of Energy property in McCracken County. This line is part of the continuing efforts to meet the energy needs of electric customers. Part of the planned line would cross your property. The route of this planned line is shown on the map enclosed with this letter.

KU is sending this letter to officially notify you that KU has notified the Kentucky Public Service Commission (“Commission”) that we plan to apply for regulatory approval for construction of the planned line. The Commission has assigned the case docket number 2010-00164.

We have previously discussed this line with you and you have granted us an option to purchase an easement from you. If the Commission approves construction of this line, representatives of KU will contact you to exercise the option to purchase the easement allowing us to build the planned line across a portion of your property.

In addition, under Kentucky law, after KU has filed its application with the Commission, you have the right to request that the Commission hold a local public hearing regarding the planned line. You also have the right to ask to intervene in the case. If you would like to request a local public hearing, the request must be made in writing to the Executive Director of the Commission. The Executive Director’s address is:

Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602

Any written request for a hearing must be made no later than thirty (30) days after KU has filed an application for a certificate of convenience and necessity for the planned line. We have not filed the application yet, but we intend to file it later this month. Any written request for a local public hearing will need to include the following:

Customer Name

Date

Page 2

1. The docket number of the case, which is Case No. 2010-00164;
2. The name, address and telephone number of the person requesting the hearing;
and
3. A statement as to whether the person requesting the hearing wishes to participate in an evidentiary hearing or to make unsworn public comment.

If you wish to participate in an evidentiary hearing, you will also need to intervene in the case. You may request to intervene by filing a motion pursuant to 807 KAR 5:001, Section 3(8). If you would like to contact the office of the Executive Director at the Commission, the number is (502) 564-3940.

We welcome any further comments you have regarding the line. You are welcome to call our Right-of-Way Department collect at (502) 627-3160.

In November 2010, E.ON U.S. LLC was renamed LG&E and KU Energy LLC. Certain subsidiaries were also renamed, including E.ON U.S. Services Inc. which is now LG&E and KU Services Company. No changes were made to the names of Louisville Gas and Electric Company or Kentucky Utilities Company, among others.

Sincerely,

Kathy Slay
Director- Operating Services

Brian and Heather Tabor
5439 Metropolis Lake Road
West Paducah, KY 42086

Steven and Angela Woods
5421 Metropolis Lake Road
West Paducah, KY 42086

Mr. Elbert Davis (Daughter's Residence)
282 Shavers Drive
Bremen, KY 42325

Mr. Elbert Davis
9460 McCaw Road
West Paducah, KY 42086

Larry and Janine Davis
9750 McCaw Road
West Paducah, KY 42086

Dennis and Charlotte Wheatley
5422 Metropolis Lake Road
West Paducah, KY 42086

Hugh T. and Nancy Davis
5418 Metropolis Lake Road
West Paducah, KY 42086

United States Department of Energy
Attention: Joanne Merritt
250 East Fifty Street, Suite 500
Cincinnati, OH 45202

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)	CASE NO.
FOR THE CONSTRUCTION OF)	2010-00164
TRANSMISSION FACILITIES IN MCCRACKEN)	
COUNTY, KENTUCKY)	

DIRECT TESTIMONY OF
EDWIN R. "ED" STATON
DIRECTOR, TRANSMISSION
LG&E AND KU SERVICES COMPANY

Filed: November 23, 2010

1 **Please state your name, position and business address.**

2 A. My name is Edwin R. "Ed" Staton. I am Director of Transmission for LG&E and KU
3 Services Company, which provides services to Kentucky Utilities Company ("KU" or the
4 "Company") and Louisville Gas and Electric Company ("LG&E"). My business address
5 is 220 West Main Street, Louisville, Kentucky 40202. A complete statement of my
6 education and work experience is attached to this testimony as Appendix A.

7 **Q. Have you previously testified before this Commission?**

8 A. Yes. I have testified in *In the Matter of: Petition of Kentucky Utilities Company and Blue*
9 *Grass Energy Cooperative Corporation to be Designated as the Retail Service Supplier*
10 *for the New Wal-mart Store Number 591 Location in Cynthiana, Kentucky*, Case No.
11 2006-00214 and *In the Matter of: Application of Kentucky Utilities Company Concerning*
12 *the Need to Obtain Certificates of Public Convenience and Necessity for the Construction*
13 *of Temporary Transmission Facilities in Hardin County, Kentucky*, Case No. 2009-
14 00325, as well as in the Commission's investigation of the 2009 Ice Storm.

15 **Q. Are you sponsoring any exhibits?**

16 A. Yes. I am sponsoring the following exhibits to the Application:

- 17 Exhibit 2 – PhotoScience Report;
- 18 Exhibit 3 – Map of Proposed Transmission Line;
- 19 Exhibit 4 - Sketch of Typical Structure;
- 20 Exhibit 5 – Map of Alternative Routes Considered;
- 21 Exhibit 6 – Sample of Notice to Landowners; and
- 22 Exhibit 7 – List of Names and Addresses of Landowners.

1 Exhibits 3, 4, 5, 6, and 7 are all filed pursuant to Commission regulations. Exhibit 2 is a
2 report prepared by PhotoScience, Inc. regarding the selection of the route for the
3 transmission line.

4 **Q. What is the purpose of your testimony?**

5 A. My testimony will provide an overview of the transmission facilities being proposed in
6 this proceeding, explain the need for those transmission facilities, describe the route of
7 those facilities, describe the route selection process, and explain why the application
8 should be approved. In addition, I will describe the process by which the Company has
9 communicated with affected landowners and will obtain easements and permits necessary
10 for the construction and operation of the line.

11 **Q. Please describe the facilities the Company is proposing to construct.**

12 A. The Company is seeking a certificate of public convenience and necessity (“CCN”) for a
13 161 kV transmission line which will be located in McCracken County, Kentucky.
14 Specifically, the line will be 1.69 miles in length and run from the Company’s
15 Grahamville Substation to the Electric Energy, Inc. (“EEI”) transmission line near the
16 Department of Energy property in McCracken County.

17 **Q. Why is the Company proposing to construct this line?**

18 A. The line is necessary to accommodate additional load in western Kentucky. The
19 Company received a Network Integration Transmission Service (“NITS”) request from
20 the Paducah Power System and the Princeton Electric Plant Board (collectively Kentucky
21 Municipal Power Agency: “KMPA”) for firm transmission service. The Company’s
22 Independent Transmission Organization (“ITO”), Southwest Power Pool (“SPP”),
23 conducted a system impact study to determine whether there would be any impact on the

1 system resulting from the added load. SPP identified low bus voltage and transmission
2 line overload concerns if the load is added. SPP concluded that new facilities would need
3 to be constructed prior to providing firm transmission service to KMPA. Thereafter, KU
4 conducted a facilities study to determine what construction might be necessary in
5 connection with the proposed service to KMPA. The Company concluded that, in order
6 to comply with KU's transmission planning guidelines, it would need to construct
7 additional facilities, including the proposed 161 kV transmission line that is the subject of
8 this proceeding. As Lonnie E. Bellar explains in his direct testimony, the Company is
9 required by Federal Energy Regulatory Commission ("FERC") rules to provide open
10 access to its transmission system. As a result, KU is required to provide the service
11 requested by KMPA, and it must construct the facilities identified in its facilities study to
12 do so. An added benefit to the Company is that the proposed line is an alternate tie to a
13 strong source of power when the existing 161 kV line is undergoing maintenance or
14 experiencing an unplanned outage.

15 **Q. When will the Company need the new transmission line to be in service?**

16 A. KU is already providing a portion of the firm service requested by KMPA that is
17 manageable under existing transmission constraints. Therefore, KU would like to
18 proceed with due dispatch to construct the facilities to enable it to furnish the full amount
19 of the firm service requested by KMPA. The Company's target in-service date is late
20 summer 2011.

21 **Q. Please describe the method by which the Company selected the route for the**
22 **proposed line.**

1 A. We followed the methodology developed during Case Nos. 2005-00142, 2005-00467 and
2 2005-00472 relating to the location of the KU and LG&E transmission line from LG&E's
3 Mill Creek Station to KU's Hardin County Substation. Specifically, we followed the
4 five-step process outlined by the Commission at an October 4, 2005, informal conference
5 in Case Nos. 2005-00142 and 2005-00154. In the Intra-Office Memorandum dated
6 October 5, 2005, relating to Case Nos. 2005-00142 and 2005-00154, the Staff set forth
7 those steps as follows:

8 First, the utility should establish the need. Once that is met, the
9 utility should identify all lines that could work electrically, making
10 sure to include corridors that utilize existing facilities, such as
11 substations, lines, and rights-of-way. Third, the utility should
12 identify the "least cost" alternative. Fourth, the utility should
13 consider the rate impact, both overall and per customer, of
14 alternative lines that are not the "least cost." Then, the utility
15 should turn to an analysis of the types of considerations listed on
16 Slide 5 [built environment, natural environment and engineering].

17 **Q. What did KU do to comply with the first step in the process?**

18 A. A description of the need for the facilities is set forth above. Once the municipalities
19 made their NITS request and SPP confirmed that firm service could be provided after
20 construction of the facilities identified in KU's facilities study, we investigated how we
21 could provide the firm service.

22 **Q. What did the Company do to comply with the second step in the process?**

23 A. First, in its system impact study, SPP identified the existing 161 kV transmission line
24 between the Grahamville Substation and the DOE Substation as a critical contingency if
25 the new load is added. In order to serve KMPA consistent with KU's transmission
26 planning guidelines, we need to eliminate that contingency by the construction of an
27 additional transmission line between the two substations. The first option investigated
28 was a rebuild of the existing 161 kV line to accommodate two 161 kV circuits.

1 Unfortunately, placing the two circuits on the same structures is inconsistent with KU's
2 transmission planning guidelines for new construction. Our investigation revealed only
3 two routes between the Grahamville Substation and the DOE Substation that will "work
4 electrically." They are shown on Application Exhibit 5. Both routes were chosen
5 because they maximize the use of co-location with other transmission lines. The first
6 route, shown in yellow on Application Exhibit 5, runs parallel to, and 100 feet away
7 from, the existing 161 kV transmission line which exits the Grahamville Substation in a
8 NNE direction and then makes a ninety degree turn to a WNW direction to the EEI
9 transmission line, which enters the DOE Substation. The second route, shown in green
10 on Application Exhibit 5, runs largely parallel to, and 100 feet away from different
11 existing transmission lines. First, it runs in a SSW direction out of the Grahamville
12 Substation parallel to an existing 69 kV line until it meets another 69 kV line, which it
13 then tracks in a westerly direction. It departs from that line and proceeds cross-country a
14 few hundred feet until it meets an existing 161 kV line, which it parallels in a NNE
15 direction until it intersects with the first route. The second route then follows the same
16 path as the first route in a WNW direction to the EEI transmission line, which enters the
17 DOE Substation. These are the two routes that "work electrically."

18 **Q. What did KU do to comply with the third step in the Commission Staff's route**
19 **selection process?**

20 A. The third step is an estimation of the cost of the routes we identified. We made cost
21 estimates of the two routes. We estimated the cost of construction of the transmission
22 line for the first route to be \$3.7 million. We estimated the cost of the transmission line

1 for the second route to be \$5.5 million.¹ The results are not surprising as one can look at
2 the two proposed routes on the map and readily see that the second route is longer and
3 will be more costly to construct than the first route.

4 **Q. Did the Company perform the fourth step of the Commission Staff's process; that is,**
5 **a determination of the rate impact resulting from the use of routes other than the**
6 **least cost route?**

7 A. No. Since we decided to use the least cost route, we did not need to perform the fourth
8 step.

9 **Q. How did the Company perform the fifth step in the Commission Staff's process?**

10 A. The fifth step calls for the application of certain portions of a methodology for the
11 siting of overhead transmission lines developed by the Electric Power Research Institute
12 ("EPRI") to the route selection process. That portion of the EPRI analysis calls for the
13 comparison of the routes based on built, natural and engineering criteria. The analysis is
14 set forth in the PhotoScience report that is Application Exhibit 2. Initially, we had
15 planned on a route that terminated at the DOE Substation and PhotoScience's report is
16 based on that assumption. We have decided to terminate the route at the EEI
17 transmission line, which is in close proximity to the DOE Substation, so the change is
18 immaterial and we believe that the PhotoScience Report is still valid.

19 **Q. What route was selected utilizing the foregoing methodology?**

20 A. We selected the first route identified in yellow on Application Exhibits 3 and 5. It is the
21 least cost route and is the one that is essentially 100% co-located parallel to the existing
22 161 kV line from the Grahamville Substation to the DOE Substation.

¹ The cost of the entire project, including direct assignment facilities and network upgrades is approximately \$15.2 million for the first route and approximately \$17 million for the second route. A CCN is not required for any portion of the project except the construction of the transmission line.

1 **Q. Will the construction of the proposed transmission line result in any unnecessary or**
2 **wasteful duplication of facilities?**

3 A. No. While there is another 161 kV line in the immediate vicinity of the proposed line, it
4 is not sufficient to carry the load that is required.

5 **Q. Has the Company conducted any physical inspections of the two alternative routes?**

6 A. Yes. We have carefully inspected the potential routes and we are convinced that the
7 proposed route is the best route.

8 **Q. Has KU had any discussions with other regulatory agencies about the route for the**
9 **proposed transmission line?**

10 A. Yes. Because the line will cross the property of the United States Department of Energy
11 (“DOE”), we have had discussions with DOE to obtain a permit to cross its land. We are
12 in the process of making an analysis of the proposed line required by the National
13 Environmental Policy Act (“NEPA”) and the National Historic Preservation Act
14 (“NHPA”) and DOE has orally agreed to provide the required permit if there are no
15 negative results in the NEPA and NHPA analyses.

16 **Q. Please describe how the transmission line will be constructed.**

17 A. After the CCN has been issued, the Company will complete easement acquisition, right-
18 of-way vegetation removal, final design, material acquisition and construction phases of
19 the project. The transmission line design engineering functions for this project will be
20 performed by the Company’s transmission line services personnel located at One Quality
21 Street in Lexington. Transmission structures like the ones set forth in the sketches in
22 Application Exhibit 4 will be utilized. The Company will request qualified vendors to
23 submit competitive bids for the material required for the completion of the work.

1 Contractors will be requested to competitively bid on the transmission line construction.
2 The requests for bids will specify that all work performed shall comply with all local,
3 state and federal laws and conform to all permits and environmental requirements.

4 **Q. What is the expected cost of construction for the transmission line?**

5 A. As stated above, the estimated cost is approximately \$3.7 million.

6 **Q. Please explain why the transmission facilities proposed by the Company in this case**
7 **are required by public convenience and necessity.**

8 A. As a regulated utility in Kentucky, KU has an obligation to provide dependable service to
9 customers in its service territory. In addition, by virtue of its FERC-mandated open
10 access obligation to provide transmission service to KMPA, the construction of the
11 proposed facilities responds to the needs of the public in those municipalities to be
12 served. Thus, the line will benefit the customers of KMPA as well as the customers of
13 LG&E and KU, as discussed in Mr. Bellar's testimony. Since the line will be co-located
14 along an existing 161 kV transmission line, there will be no wasteful duplication nor
15 unnecessary cluttering of the landscape and the public convenience will be thereby
16 served.

17 **Q. Has KU been in contact with the landowners who will be affected by the proposed**
18 **transmission facilities?**

19 A. Yes. Our right-of-way department has spoken with every landowner over whose
20 property the line will cross. Those persons' names and addresses are set forth on
21 Application Exhibit 7. We also mailed the notice required by Commission regulations to
22 each of the landowners. The form of the notice is Application Exhibit 6. Each
23 landowner has granted the Company an option to acquire an easement for the purposes of

1 constructing this line. They will be exercised if the Commission grants the requested
2 CCN. We also conducted a public meeting about the proposed line in Paducah on May
3 11, 2010. We are aware of no opposition to the proposed facilities.

4 **Q. Do you have a recommendation for the Commission?**

5 A. Yes. For all the reasons set forth in the Company's Application, and in the testimony
6 submitted with the Application, it is my recommendation that the Commission grant the
7 Company's Application for a CCN. Further, I recommend that the Commission provide
8 flexibility in its order approving the proposed construction for the Company to make
9 unsubstantial modifications to the route if conditions justify or compel such
10 modifications without the need for further orders from the Commission.

11 **Q. Does this conclude your testimony?**

12 A. Yes it does.

APPENDIX A

Edwin R. "Ed" Staton
Director, Transmission
E.ON U.S. LLC
220 West Main Street
Louisville, KY 40202
Telephone: (502) 627-4314

Work History

Director Transmission –LG&E and KU Services Company, Louisville, Ky

- Direct the transmission resources in the effective delivery of power through the Bulk Power System of LG&E and KU.

Director of Distribution Operations – Kentucky Utilities Company, Lexington, Ky.

- Direct electric distribution resources for Kentucky Utilities Co. and Old Dominion Power Co. providing electric services to 510,000 customers in 77 counties in Ky. and southwestern Virginia.

Manager of Distribution Operations – Auburndale Operations Center, Louisville Gas & Electric Company

- Managed the largest combined Gas and Electric operations center in the company. The center provides service to approximately 200,000 gas and electric customers with over 200 combined company and contractor resources.

District Manager – Kentucky Utilities Co. - Elizabethtown, Ky.

- Responsibilities included 4 business offices, 1 operations center, 40+ employees, 32,000 customers, both retail and operations.

Local Service Manager – Kentucky Utilities Co. – Eddyville, Ky.

- Responsible for a local business office, both operations and retail, managed service delivery for 3200 customers and supervised 5 employees.

Line Technician/Service Technician – Kentucky Utilities Co. – Morganfield, Ky.

- Part of an electric service delivery and restoration team, involved in all aspects of line construction (overhead and underground) and customer service/restoration.

Prior to my positions listed above, I was employed (in chronological order) as a Student Laborer – Substations, Drafter, and Transmission Engineering Assistant with Kentucky Utilities Co.

Education

Diploma – Tates Creek High School, Lexington, Ky.

Associate Degree – Business Management, University of Kentucky – Henderson Community College, Henderson, Ky.

Bachelor of Science Degree – Business Administration (minor in Accounting), - University of Southern Indiana, Evansville, Indiana

Master of Business Administration – Western Kentucky University, Bowling Green, Ky.

Vocational Training

Kentucky Institute for Economic Development

Public Utilities Regulations Guide

Gas Distribution Operations – Institute of Gas Technology, Des Plaines, Ill.

E.ON Academy - International Management Program – IMD (International Institute for Management Development), Lausanne, Switzerland

M.I.T. Sloan School of Management, Executive Program in Corporate Strategy, Boston, Mass.

Computer Skills

- Proficient with Microsoft desktop applications including Word, Excel, Outlook, etc.

Awards Received

- Citizen of the Year – Eddyville Lyons Club 1997
- Allene Craddock Leadership Award – Elizabethtown, Ky. 1999

Community Service

- President – Lyon Co. Chamber of Commerce 1996-1997
- Co-Chairman – Eddyville Industrial Foundation 1997-1998
- Board member – Elizabethtown Chamber of Commerce 2000
- Member – Larue Co. Industrial Foundation 1999-2003

- Member – Elizabethtown luncheon Rotary Club 1999-2000
- Member – Kentucky Industrial Development Council 1996-present
- Junior Achievement:
 - Classroom instructor
 - Coral Ridge Elementary School, Louisville, Ky. 2001-2002
- Board member – Junior Achievement of the Bluegrass 2007-present
- Junior Achievement:
 - Classroom instructor
 - Tates Creek Middle School, Lexington, Ky. 2008-present

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)	CASE NO.
FOR THE CONSTRUCTION OF)	2010-00164
TRANSMISSION FACILITIES IN MCCRACKEN)	
COUNTY, KENTUCKY)	

TESTIMONY OF LONNIE E. BELLAR
VICE PRESIDENT OF STATE REGULATION AND RATES
KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Dated: November 23, 2010

INTRODUCTION

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Q. Please state your name, position and business address.

A. My name is Lonnie E. Bellar. I am the Vice President of State Regulation and Rates for Louisville Gas and Electric Company (“LG&E”) and Kentucky Utilities Company (“KU”) (collectively, “Companies”), and an employee of LG&E and KU Services Company. My business address is 220 West Main Street, Louisville, Kentucky 40202. A statement of my qualifications is attached as Exhibit A.

Q. Have you previously testified before the Kentucky Public Service Commission?

A. Yes. I have testified before the Commission multiple times, including Case Nos. 2007-00562 (LG&E) and 2007-00563 (KU) concerning the disposition of KU’s and LG&E’s merger surcredit mechanisms; in the Companies’ 2009 Environmental Surcharge Compliance Plan proceedings, Case Nos. 2009-00197 (KU) and 2009-00198 (LG&E), the Companies’ most recent base rate cases, Case Nos. 2008-00251 (KU) and 2008-00252 (LG&E), and Case Nos. 2009-00548 (KU) and 2009-00549 (LG&E). I also testified in the recent change of control proceeding, Case No. 2010-00204.

Q. Please describe your work experience and educational background.

A. I began my career with KU in 1987 as an electrical engineer. I held several engineering roles in the transmission and generation areas, and was eventually promoted to Director of Generation Services in 2000. I then served as General Manager of the LG&E Cane Run and Ohio Falls power stations; Director of Financial Planning and Controlling; and Director of Transmission. I received a Bachelor of Science in Engineering Arts from Georgetown College and a Bachelor of Science in Electrical Engineering from the University of Kentucky. I

1 have completed various management and executive training courses sponsored by the
2 E.ON Academy, including courses at Harvard University.

3 **Q. Are you sponsoring any exhibits?**

4 A. Yes. I am sponsoring Exhibits 1 (Notice of Intent) and 8 (Newspaper Notice) to the
5 Application.

6 **Q. What is the purpose of your testimony?**

7 A. The purpose of my testimony is to discuss the reasons KU is required to construct the
8 proposed 161 kV transmission line from KU's Grahamville Substation to the Electric
9 Energy, Inc. ("EEI") transmission line near the Department of Energy property in
10 McCracken County and to provide a history of the relationship between KU and
11 Paducah Power System ("Paducah") and Princeton Electric Plant Board ("Princeton")
12 (jointly referred to as Kentucky Municipal Power Agency ("KMPA")), among other
13 regulatory issues.

14 **Q. Why do Princeton and Paducah need transmission service from KU today?**

15 A. Until late 2009, Paducah and Princeton had been full requirements customers of the
16 Tennessee Valley Authority ("TVA"), receiving bundled wholesale service for all of
17 their retail customers since January 1, 1963. As such, Paducah's and Princeton's
18 loads were physically connected to the TVA transmission system with none of these
19 loads being connected to or served from KU facilities. Although many of the
20 network facilities that KU used to serve these loads (prior to 1963) are still in place,
21 they were not updated to meet the demands of Paducah or Princeton after they left the
22 KU system.

1 Paducah and Princeton gave TVA a contract cancellation notice in or about December
2 2004 and January 2005, respectively. Municipal systems like Paducah and Princeton
3 had been facing multiple years' rate increases of 10% or more from TVA and felt at
4 the time that they could obtain less costly power from the market or from investing in
5 generation rather than what they received from TVA. It is the Company's
6 understanding that KMPA initially wanted to import this power through the TVA
7 system, but TVA declined the transmission only service request. Paducah and
8 Princeton's nearest alternative transmission system was the KU system.
9 Paducah and Princeton initially requested Network Integration Transmission
10 Service ("NITS") under the KU Open Access Transmission Tariff ("OATT") on
11 October 27, 2006. The initial request was found to be deficient by the Companies'
12 Independent Transmission Operator ("ITO"), the Southwest Power Pool, Inc.
13 Paducah and Princeton corrected the errors and resubmitted their request on
14 February 4, 2008. Service was requested to begin in December 2009 for a load of
15 about 204 MW with generation coming from the Midwest ISO. As stated
16 previously, the transmission facilities that KU has in western Kentucky are not
17 designed to handle the approximately 200 MW of additional load that KMPA would
18 add to the system. In order to provide Paducah and Princeton with transmission
19 service similar to the service it has received from TVA over the past four decades,
20 KU is in the process of adding new facilities and upgrading certain existing facilities.

21 **Q. Does KU serve Princeton and Paducah today, and if so, what type of service is**
22 **provided?**

1 A. Yes. Paducah was connected to the KU Transmission System on December 22, 2009
2 and is currently receiving NITS-type transmission service as a customer of KU under
3 the LG&E and KU OATT, while Princeton was connected and began receiving
4 service on January 25, 2010. This service, however, is a “partial interim” service for
5 Paducah, limited by the fact that the construction necessary to provide full service has
6 not been completed. Specifically, until the proposed line is complete, Paducah’s
7 ability to serve its full network load from its network generation resources (located
8 within the Midwest ISO) has been and will continue to be limited to 125 MW during
9 the summer season. This limitation is necessary in order to prevent conditions that
10 could jeopardize reliability of KU’s existing customers and the Paducah load. FERC
11 has approved such a limitation of service but expects that KU will eventually provide
12 full service once the necessary facilities are complete.

13 **Q. What type of customers will Princeton and Paducah be once this line is**
14 **constructed and how will they be charged?**

15 A. Once this line is constructed, Princeton and Paducah will continue as NITS
16 customers, similar to East Kentucky Power Cooperative (“EKPC”) or other network
17 customers who currently receive NITS from LG&E/KU. The difference will be that
18 after the line is constructed, Paducah will no longer be limited in its service, but will
19 then have service up to the full amount of its loads in all seasons.

20 This line will be a “network facility,” meaning that it will be used to support all
21 OATT customers, both Network and Point-to-Point, from time-to-time, including the
22 LG&E/KU retail customers. Currently, if the existing Grahamville to DOE 161 kV
23 line is out of service, for outage or maintenance, the Barlow, Wickliffe, and Clinton

1 loads (5.0, 6.1 and 4.5 MW, respectively) would be served only through the KU
2 South Paducah substation. Other existing transmission configurations, due to
3 maintenance or outage, can exist where all the loads in the area (totaling 38.7 MW)
4 are being served only through the existing Grahamville to DOE 161 kV line. Of
5 course, adding the new network facility will enhance the reliability to all customers
6 of KU.

7 As a general rule, FERC does not permit transmission owning utilities to directly
8 assign the costs for constructing a network facility to an individual customer. Instead,
9 FERC requires such costs to be rolled into transmission rates to be charged to all
10 customers. As such, the cost of this line will be rolled into KU's annual revenue
11 requirement which forms the basis for charges to all Network and Point-to-Point
12 transmission customers. KU will continue to bill Princeton and Paducah for NITS
13 and ancillary services charges, as updated annually.¹

14 **Q. Please explain why KU is required to provide transmission service to Princeton**
15 **and Paducah and to build the proposed transmission line.**

16 A. In Order No. 888, as reaffirmed in Order No. 890, FERC adopted regulations which
17 require all transmission-owning public utilities to offer open access transmission
18 service to all eligible customers. Order Nos. 888 and 890 established the terms of the
19 pro forma OATT, which are the "minimum terms and conditions of non-
20 discriminatory service."² As a transmission-owning public utility, KU is required to

¹ These parties are charged for transmission service pursuant to the terms of a settlement agreement entered into in the context of LG&E/KU's withdrawal from the Midwest ISO. FERC accepted the agreement, identified as LG&E/KU Rate Schedule 402, for filing in Docket No. ER06-1279-000.

² *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890 at P 14, 72 FR 12266 (March 15, 2007), FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, 73 FR 2984 (January 16, 2008), FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶

1 offer transmission service – including NITS – to eligible customers pursuant to the
2 terms of the OATT.

3 The terms of the pro forma OATT state that a Transmission Provider, such as KU, is
4 obligated to construct facilities necessary to allow a Network Customer to serve its
5 Network Load. Specifically, Section 28.2 of the pro forma OATT³ (as incorporated
6 in the KU OATT) states:

7
8 The Transmission Owner will plan (subject to regional plans
9 and coordination), construct, operate and maintain the
10 Transmission System in accordance with Good Utility Practice
11 and its planning obligations in Attachment K in order to make
12 available to the Network Customer Network Integration
13 Transmission Service over the Transmission Owner’s
14 Transmission System. . . . The Transmission Owner shall
15 include the Network Customer’s Network Load in the
16 Transmission System planning and shall, consistent with Good
17 Utility Practice, endeavor to construct and place into service
18 sufficient transfer capability to deliver the Network Customer’s
19 Network Resources to serve its Network Load on a basis
20 comparable to the Transmission Owner’s delivery of its own
21 generating and purchased resources to its Native Load
22 Customers.

23
24 In Order No. 888-A, FERC explained that “network service is founded on the notion
25 that the transmission provider has a duty to plan *and construct* the transmission
26 system to meet the present and future needs of its native load and, by comparability,

61,299 (2008), *order on reh’g and clarification*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

³ The pro forma OATT establishes the terms and conditions of open access transmission service, which each transmission-owing public utility was required to adopt in Order No. 888 (as amended by Order No. 890). Utilities are permitted to deviate from the terms of the pro forma OATT, but they must demonstrate to FERC that such deviations are just and reasonable and superior to the terms of the pro forma OATT. Thus, Section 28.2 of the OATT as referenced herein is a term common to most utilities’ OATTs.

1 its third-party network customers.”⁴ Accordingly, KU must construct facilities to
2 meet the needs of third-party network customers such as Princeton and Paducah in the
3 same manner that KU would do for itself. In this case, in order to allow Princeton
4 and Paducah’s designated network resources to reach their designated network load,
5 KU must construct the proposed line. Without this new facility in place, Paducah’s
6 ability to serve its load is limited, and thus does not meet the comparability
7 requirements of the OATT.

8 Unlike KU, TVA is not a transmission-owning public utility under the terms of the
9 Federal Power Act. Accordingly, TVA does not have the same obligation to provide
10 eligible customers (such as Princeton and Paducah) with transmission service.
11 Although the Federal Power Act does provide that FERC can order TVA to provide
12 wheeling and interconnection in certain circumstances (*see* 16 USC § 824i, § 824j,
13 and § 824k), there is no requirement that TVA have a FERC approved OATT and/or
14 build facilities to support transmission service requests.

15 **Q. Are there other potential benefits for KU for the addition of this facility?**

16 A. Yes, there is a potential for additional Point-to-Point revenue through the Electric
17 Energy, Inc. interface due to an increase of the current maximum transfer limit. The
18 existing maximum transfer limit of 307 MW (Summer) would be increased with the
19 addition of the new facility, thereby making it possible for the Effective Available
20 Transfer Capability that KU currently posts to exceed 307 MW and provide the

⁴ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888-A, 62 FR 12274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 at 30,220 (1997), *order on reh’g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh’g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff’d in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000) (TAPS v. FERC), *aff’d sub nom. New York v. FERC*, 535 U.S. 1 (2002) (emphasis added).

1 ability to possibly make additional sales through that limited interface. Any
2 additional revenue is used in the annual rate formula as rate credits, thereby reducing
3 the net cost to Network and Point-to-Point Customers.

4 **Q. What action are you requesting that the Commission take?**

5 A. I request that the Commission approve the proposed application.

6 **Q. Does this conclude your testimony?**

7 A. Yes.

VERIFICATION

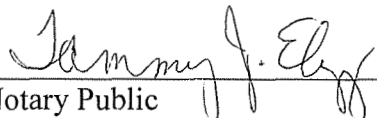
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates for Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.



Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22nd day of November 2010.



Notary Public (SEAL)

My Commission Expires:
November 9, 2014

APPENDIX A

Lonnie E. Bellar

LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202

Education

Bachelors in Electrical Engineering;
University of Kentucky, May 1987
Bachelors in Engineering Arts;
Georgetown College, May 1987
E.ON Academy, Intercultural Effectiveness Program: 2002-2003
E.ON Finance, Harvard Business School: 2003
E.ON Executive Pool: 2003-2007
E.ON Executive Program, Harvard Business School: 2006
E.ON Academy, Personal Awareness and Impact: 2006

Professional Experience

LG&E and KU Energy LLC

Vice President, State Regulation and Rates Nov. 2010 – Present

E.ON U.S. LLC

Vice President, State Regulation and Rates Aug. 2007 – Nov. 2010
Director, Transmission Sept. 2006 – Aug. 2007
Director, Financial Planning and Controlling April 2005 – Sept. 2006
General Manager, Cane Run, Ohio Falls and
Combustion Turbines Feb. 2003 – April 2005
Director, Generation Services Feb. 2000 – Feb. 2003
Manager, Generation Systems Planning Sept. 1998 – Feb. 2000
Group Leader, Generation Planning and
Sales Support May 1998 – Sept. 1998

Kentucky Utilities Company

Manager, Generation Planning Sept. 1995 – May 1998
Supervisor, Generation Planning Jan. 1993 – Sept. 1995
Technical Engineer I, II and Senior,
Generation System Planning May 1987 – Jan. 1993

Professional Memberships

IEEE

Civic Activities

E.ON U.S. Power of One Co-Chair – 2007
Louisville Science Center – Board of Directors – 2008
Metro United Way Campaign – 2008
UK College of Engineering Advisory Board – 2009