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September 29, 2011

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HAND DELIVERED

Jeff R. Derouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602-0615

RE: Case No. 2011-00295 (Bonnyman-Soft Shell 138 kV Transmission Line And Related Facilities COPCN)

Dear Mr. Derouen:

Enclosed are the original and six copies of the Application of Kentucky Power Company for a Certificate of Public Convenience and Necessity to construct a 138 kV transmission line in Perry and Knott Counties, Kentucky and related facilities.

Copies are being served today by mail on representatives of the Attorney General and Kentucky Industrial Utility Customers, Inc.

Very truly yours,

STITES & HARBISON, PLLC

Mark R. Overstreet

MRO
cc: Dennis G. Howard II
Michael L. Kurtz.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A 138 KV TRANSMISSION LINE AND ASSOCIATED FACILITIES IN BREATHITT, KNOTT AND PERRY COUNTIES, KENTUCKY (BONNYMAN–SOFT SHELL LINE)	)	Case No. 2011-00295

APPLICATION

Kentucky Power Company ("Kentucky Power") moves the Public Service Commission of Kentucky ("Commission") pursuant to KRS 278.020(2), 807 KAR 5:001, Section 8, 807 KAR 5:001, Section 9 and 807 KAR 5:120 for a Certificate of Public Convenience and Necessity to Construct: (1) a 138 kV transmission line in Knott and Perry Counties approximately 20 miles in length; and (2) the proposed expansion of the existing Bonnyman Station in Perry County, Kentucky, along with the construction of associated facilities at Kentucky Power's existing Beckham Station and Soft Shell Station in Knott County, Kentucky, and the Haddix Station in Breathitt County, Kentucky. In support thereof Kentucky Power states:

Applicant

1. Kentucky Power is an electric utility organized as a corporation under the laws of the Commonwealth of Kentucky in 1919. A certified copy of Kentucky Power's Articles of Incorporation and all amendments thereto was attached to the Joint Application in Case No. 99-

149[1] as Exhibit 1. The post office address of Kentucky Power is 101A Enterprise Drive, P.O. 5190, Frankfort, Kentucky 40602-5190. Kentucky Power is engaged in the generation, purchase, transmission, distribution and sale of electric power. Kentucky Power serves approximately 173,400 customers in the following 20 counties of eastern Kentucky: Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power also supplies electric power at wholesale to other utilities and municipalities in Kentucky for resale. Kentucky Power is a utility as that term is defined at KRS 278.010.

2. Kentucky Power is a wholly-owned subsidiary of American Electric Power Company, Inc. ("AEP.") The AEP System is a multi-state public utility holding company system that provides electric service to customers in parts of eleven states – Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia.

The Proposed Project

3. Kentucky Power seeks authority to construct approximately 20 miles of new 138 kV transmission line connecting the existing 69 kV Bonnyman Station, located in Perry County, and the existing 138 kV Soft Shell Station located in Knott County. A general location map of the project is provided hereto as **EXHIBIT 1.** Maps of suitable scale that meet the requirements of 807 KAR 5:120, Section 2(2) and detail the route of the proposed line and alternatives are attached hereto as **EXHIBITS 2 AND 3**.

4. A 100-foot right-of-way will be required for the transmission line, with 50 feet of right of way on each side of the centerline. The new conductors will connect to existing station

1 *In the Matter of: The Joint Application Of Kentucky Power Company, American Electric Power Company, Inc. And Central And South West Corporation Regarding A Proposed Merger*, P.S.C. Case No. 99-149.

equipment at the Soft Shell 138 kV Station.

5. The existing 69 kV Bonnyman Station will require an expansion of approximately 100 feet to the east to accommodate the installation of a new 138 kV/69 kV transformer. The proposed station expansion is located on Typo Road (State Route 267). The current station will be expanded through the acquisition of adjoining 0.45 acre and 0.22 acre tracts of land and the demolition of one two-story, wood-framed residence. The tracts of land and residence are currently subject to an option to purchase from Ronnie Couch by Kentucky Power.

6. Minor improvements with no new land acquisition also will be required at the Company's existing Haddix Station in Breathitt County, Kentucky, and the Beckham and Soft Shell Stations in Knott County, Kentucky.

The Facilities To Be Constructed

7. Approximately 19 miles of the proposed 20-mile transmission line will consist of a single circuit, and will be supported by steel pole H-frame and 3-pole structures. These structures will support three conductors and two overhead groundwires. The conductors will consist of 1,590 kcm ACSR conductors; the overhead groundwires will consist of one 7#8 alumoweld wire and one fiber optic overhead groundwire, which will be used for relaying communications between stations. The average height of the structures will be approximately 85 feet. Sketches of typical steel pole H-frame and 3-pole transmission line support structures are attached hereto as EXHIBITS 4 AND 5.

8. Approximately one (1) mile of the proposed 20-mile transmission line will be constructed within the existing Hazard – Bonnyman 69 kV Line 100-foot right-of-way. The existing Hazard – Bonnyman 69 kV structures (wood H-frame and 3-pole structures) will be replaced with steel lattice tower structures to support the new double circuit configuration. The

average height of the existing structures is approximately 65 feet; the new steel lattice towers will be approximately 100 feet. Sketches of a typical steel lattice tower double circuit line configuration are attached hereto as EXHIBIT 6.

9. The Bonnyman Station improvements will include the following: (a) installation of a 138 kV/69 kV, 130 MVA or similar MVA rated transformer; (b) installation of a 138 kV circuit breaker pointing towards Soft Shell Station; (c) installation of devices for line protection and control; (d) installation of a sub-transmission transformer relay package on the new transformer; (e) installation of a 69 kV breaker with relay control on the low side of the 138 kV/69 kV transformer; (f) replacement of relays on circuit breaker A & C with standard sub-transmission line relaying package; (g) replacement of the 69 kV bus differential with relaying devices; and (h) installation of a 24' W x 32' L x 10' H building for housing control equipment. Photographs of the existing Bonnyman Station and sketches of the proposed expansion are attached hereto as EXHIBITS 7 AND 8. The Haddix Station minor improvements will include the installation of a 5.4 MVAr, 69 kV capacitor bank. The Beckham Station minor improvements will include the installation of a 43.2 MVAr, 138 kV capacitor bank, and installation of a 24' W x 32' L x 10' H building for housing control equipment. The Soft Shell Station improvements will allow for a new 138 kV line connection to Bonnyman Station.

10. The projected cost of the project is approximately $62.5 million. The proposed construction does not involve sufficient capital outlay to affect materially the financial condition of Kentucky Power. Construction will be financed through Kentucky Power's internally generated funds. After the proposed facilities are completed their estimated annual cost of operation, excluding additional ad valorem taxes, will be approximately $50,000 per year for general maintenance and inspection. The projected annual additional ad valorem taxes resulting

from the project are expected to total approximately $780,000.

Property Acquisition

11. The proposed transmission line will traverse approximately 84 parcels (excluding highway crossings) involving 65 landowners. The proposed location of the line is illustrated on EXHIBIT 2 to this application; a list of affected or possibly affected property owners is provided as EXHIBIT 9. To ensure the flexibility necessary to address last-minute or unanticipated issues regarding the construction of a transmission line, Kentucky Power requests authority to move the approved centerline 250 feet in either direction (i.e., within a 500-foot corridor) so long as: (1) the property owner onto whose property the line is moved was notified of this proceeding in accordance with 807 KAR 5:120, Section 3(2); and (2) the property owner who is subject to the move agrees in writing to the requested move. After construction is completed, Kentucky Power will file with the Commission an "as-built" survey of the final location of the line. The authority sought in this proceeding is similar, but not identical, to that granted Kentucky Power by the Commission in its Order dated the August 3, 2007 in Case No. 2007-00155, *In the Matter of: The Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 KV Transmission Line In Floyd County, Kentucky.*

12. Kentucky Power currently is negotiating with the affected property owners for acquisition of the necessary rights-of-way. Kentucky Power has contacted all property owners over whose property the line is expected to cross in connection with obtaining permission to survey their property. The permission form includes a space in which the property owner may register project opposition. To date, only four property owners have expressed objections to the line. The status of negotiations for acquisition of the necessary rights-of-way is set forth in more detail in EXHIBIT 9 to this application. Kentucky Power will begin negotiating with the affected

property owners for acquisition of the necessary rights-of-way in October 2011, and expects to finish acquisition during the Spring of 2012. Kentucky Power will provide the Commission with periodic property acquisition status updates in the format employed in EXHIBIT 9.

Notices

13. On August 8, 2011 Kentucky Power filed its Notice of Intent in conformity with 807 KAR 5:120, Section 1.

14. By letters dated and mailed first class mail, postage prepaid, Kentucky Power on September 15, 2011 notified all property owners, as indicated by the records of the Knott and Perry Counties Property Valuation Administrators, over whose land the transmission right-of-way is proposed to cross of the proposed construction. Included within the letters were:

(a) notice of the proposed construction;

(b) the docket number (P.S.C. Case No. 2011-00295) under which the application will be processed;

(c) the address and telephone number of the Commission's Executive Director;

(d) a description of the property owners' rights to request a public hearing and the right to request intervention; and

(e) a description of the project and a map of the proposed route of the line.

A sample copy of the letters, including all enclosures, the list of the persons to whom they were mailed, their addresses as indicated by the records of the Knott and Perry Counties Property Valuation Administrators and the verification by Lila P. Munsey of the mailing of the letters are attached as EXHIBIT 10,

15. A notice of Kentucky Power's intent to construct the line, along with the information required by 807 KAR 5:120, Section 2(5), was published in (1) *The Troublesome*

Creek Times, a paper of legal record and general circulation for Knott County, on September 15, 2011 and September 22, 2011; (2) *The Hazard Herald*, a paper of legal record and general circulation for Perry County, on September 15, 2011; and (3) *The Jackson Times*, a paper of legal record and general circulation for Breathitt County, on September 15, 2011. The text of the notices and map are filed herewith as **EXHIBIT 11**. This Application will be supplemented with the Affidavits of Publication when received.

16. Prior to beginning construction, Kentucky Power will prepare a storm water pollution prevention plan and make application to the Kentucky Department for Natural Resources and Environmental Protection for a KPDES (Kentucky Pollutant Discharge Elimination System) general permit for storm water point source discharges associated with construction activities exceeding one acre of disturbed soils. Copies of the KPDES permit and any other applicable permits will be filed with the "as-built" drawing of the line and structures. No other franchises and permits from any other public authority are required for the proposed construction.

The Proposed Construction Is Required By The Public Convenience And Necessity

17. The proposed line is vital to strengthening the current electrical transmission network which has reached its capacity for reliable operation during certain electrical "contingencies." The need for the project is further described in the *Hazard Area Improvement Plan*. Attached hereto as **EXHIBIT 12**. In summary, a second 138 kV source into the Hazard area, along with the associated station improvements, offer the following benefits:

- Alleviate the bulk electric system ("BES") violations identified by PJM Interconnection ("PJM") - the regional transmission organization. PJM identified thermal overloads during double contingency outage conditions.
- Enhance operational performance and improve reliability of service for

approximately 300 MW of load.

- Solve 69 kV thermal and voltage concerns due to single contingencies and provide additional transformer capacity.
- Allow Kentucky Power to serve future new load.
- Provide the necessary flexibility to allow for routine maintenance of transmission and sub-transmission facilities.
- Permit future 138 kV transmission line from the Bonnyman Station to the Hazard Station to close the 138 kV loop.
- Provide calculated line loss savings of approximately 3.0 MW.

18. Other alternatives considered in lieu of the proposed project include the following:

(a) Creating a second 161 kV interconnection with Kentucky Utilities Company at the Hyden Station and connecting Kentucky Power's Bonnyman Station.

(b) Re-conductoring the Hazard 69 kV sub-transmission loop.

(c) Constructing a transmission line to Kentucky Power's Hazard Station from the TVA system.

These alternatives were rejected because they were not feasible, or because they could not provide the same benefits at or below the cost of the proposed project, as the Bonnyman-Soft Shell 138 kV transmission line and associated facilities.

19. The proposed new construction is required by the public convenience and necessity.

20. The proposed new construction will not compete with any public utilities, corporations or persons, and will not result in a duplication of facilities.

Alternate Routes and Sites Considered

21. Kentucky Power retained the services of GAI Consultants, Inc. (GAI), Homestead, Pennsylvania, to develop a route that (1) avoids or minimizes present and future land use conflicts; (2) reasonably minimizes adverse impact on environmental resources; and (3) is consistent with the Company's siting criteria. The 277 square mile study area included the Bonnyman and Soft Shell Stations and intervening areas in Knott, Perry and Breathitt Counties. A copy of the *Transmission Line Siting Study* ("GAI Report") prepared by GAI is attached to this Application as **EXHIBIT 13**.

22. The study area is dominated by rugged mountains and gas and mineral extraction operations resulting in engineering and right-of-way acquisition challenges. To ensure a buildable, cost-effective, and acquirable route, Company engineers, land agents, and local distribution representatives were essential members of the siting team. Activities included reviewing and vetting study routes, along with ground and helicopter reconnaissance. Company representatives also participated in meetings with landowners, coal companies, gas companies, and local officials.

23. Extensive stakeholder input was collected through the following methods: public workshops conducted on December 7, 2010 in Hindman, Kentucky and on December 8, 2010 in Hazard, Kentucky; the establishment of a public website to receive comments; federal, state and local agency meetings and project reviews; meetings with the large land holders (coal companies) to avoid or minimize future land use conflicts and potential relocation risks; and over 100 landowner contacts by Company land agents.

24. Ultimately, five transmission right-of-way line alternatives were considered. Each of the routes begins at the Bonnyman Station and ends at the Soft Shell Station. The routes of the five alternates are illustrated on EXHIBIT 3.

25. The GAI Report indicates that Alternative 3 will have the least impact on residences and existing and future mineral extraction. Alternative route 3 is 20 miles in length, generally parallels Route 80, and traverses a landscape dominated by past mineral extraction.

26. Based upon GAI's recommendation, Kentucky Power selected Alternative 3 for the reasons indicated in the GAI Report, including:

- Although the Company contacted all landowners over which Alternative 3 would pass, only four persons contacted have registered opposition to date. The other alternatives registered greater, albeit moderate, opposition during stakeholder input.
- Alternative 3 has significantly less potential risk for future relocations (less than 10%) compared to the other alternatives due to its proximity to Route 80 which limits future mining.
- Coal companies whose property would be crossed by the alternatives favored Alternative 3 (see EXHIBITS 16 to 19).
- The cost to construct Alternative 3 is estimated to be approximately 10% less than the other alternatives.
- The route, which was developed iteratively and in coordination with stakeholders, is strongly endorsed by the local government officials and major landowners (see EXHIBITS 14 TO 19).
- Due to proximity to Route 80, there are numerous existing access roads which can be utilized for construction and maintenance of Alternative 3. In general, the other alternatives deflect away from Route 80 and have fewer existing access roads.
- Alternative 3 has the least impact on residences.
- Alternative 3 will require a moderate amount of forest clearing (173 acres.) Minimizing forest clearing to extent practicable was recommended by the U.S. Fish and Wildlife Service to reduce potential impacts on federally protected bats.

Exhibits And Testimony

27. The exhibits and testimony listed in the Appendix to this Application are attached to and made a part of this Application

Communications

29. The Applicant respectfully requests that communications in this matter be addressed to:

Mark R. Overstreet
STITES & HARBISON, PLLC
P.O. Box 634
Frankfort, Kentucky 40602-0634

Ranie K. Wohnhas
Kentucky Power Company
P.O. Box 5190
Frankfort, Kentucky 40602-5190

ON BEHALF OF KENTUCKY POWER

WHEREFORE, Kentucky Power Company requests that the Commission issue an Order:

(a) Approving pursuant to KRS 278.020(2), 807 KAR 5:001, Section 8, 807 KAR 5:001, Section 9 and 807 KAR 5:120, the construction by Kentucky Power of the proposed Bonnyman – Soft Shell 138 kV transmission project and related facilities;

(b) Granting Kentucky Power a Certificate of Public Convenience and Necessity for such construction as is necessary to complete the project;

(c) Granting Kentucky Power such other relief as may be appropriate.

Respectfully submitted,

Mark R. Overstreet
R. Benjamin Crittenden
Laura S. Crittenden
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COUNSEL FOR KENTUCKY POWER COMPANY

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing was served by United States Mail, Postage Pre-paid, upon:

David F. Boehm
Michael L. Kurtz
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202

Dennis G. Howard II
Lawrence W. Cook
Kentucky Attorney General's Office
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204

By Hand Delivery

on this the 29th day of September, 2011.

Mark R. Overstreet

APPENDIX

TESTIMONY

LIST OF EXHIBITS

EXHIBIT 16: FRASURE CREEK MINING, LLC LETTER

EXHIBIT 17: KENTUCKY FUEL CORPORATION (CONSOL) LETTER

EXHIBIT 18: KENTUCKY RIVER PROPERTIES, LLC LETTER

EXHIBIT 19: ARCH COAL, INC. (Formerly ICG) LETTER (Pending)

DIRECT TESTIMONY OF

MICHAEL G. LASSLO

ON BEHALF OF KENTUCKY POWER COMPANY

I. INTRODUCTION

Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A: My name is Michael G. Lasslo. My position is the Manager, Distribution and Customer Services, Hazard District, Kentucky Power Company (Kentucky Power, KPCo or Company). My business address is 1400 E. Main Street, Hazard, Kentucky.

II. BACKGROUND

Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A: I have a Bachelor of Science Degree in Electrical Engineering from the University of Kentucky. I have 34 years of experience with Kentucky Power Company. My work experience includes: engineering and design for new and upgraded electrical service to residential, commercial and industrial customers; preparation of detailed studies to evaluate the existing distribution infrastructure and to plan for future system improvements; transmission/sub-transmission construction, operation and maintenance; station construction, operation and maintenance; power quality studies and customer complaint resolution; budgeting for capital, operation and maintenance expenditures; implementation and monitoring of safety programs and performance, accident/incident investigation; marketing of electro-technologies; customer service; and various supervisory and management positions.

Q: WHAT ARE YOUR RESPONSIBILITIES AS MANAGER OF DISTRIBUTION AND CUSTOMER SERVICES FOR THE HAZARD DISTRICT?

A: My role is to lead the activities of the Hazard District to provide safe, efficient, and reliable electric service to over 42,000 residential, commercial and industrial customers. I manage talented professionals who are organized into the functions of line construction, operations and maintenance; distribution engineering; work scheduling; customer service; and field revenue. My responsibilities include: customer service, restoration of service interruptions (including major storms), provision of new and upgraded service to distribution customers from 120V single phase through 34.5 kV three phase, evaluation of employee performance, monitoring of work practices for compliance with codes of conduct, safety rules and procedures, and environmental regulations, public safety, budgeting and expenditures, working with various state and local agencies to promote economic development of the service area, developing and maintaining good working relationships with local and state elected officials, community leaders, civic groups, and the media. I assist company management and the other districts as needed to accomplish the goals of AEP and Kentucky Power Company. My other responsibilities include participation in the planning activities of the AEP transmission and distribution groups regarding overall system performance; recommendation and evaluation of large system improvements; and new service to large industrial customers. I also work with the Fleet Management organization to manage our fleet of cars, trucks and specialized construction equipment along with the Building Services organization to manage the operation and maintenance of our buildings and grounds.

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A: No.

III. PURPOSE OF TESTIMONY

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A: I am testifying in support of Kentucky Power's application for a Certificate of Public Convenience and Necessity to construct the proposed Bonnyman-Soft Shell 138 kV transmission line and associated facilities (the "Project"). In my testimony I:

- Describe the process by which the need for the Project was identified;
- Describe the conditions the proposed Project is designed to address;
- Describe the expected conditions following the construction of the proposed Project; and
- Describe other benefits from and considerations regarding the Project.

I also would note that Exhibit 12 to the Application, *Hazard Area Improvement Plan*, provides further information regarding the need for the line and associated facilities.

Planning Process

Q. PLEASE DESCRIBE FOR THE COMMISSION THE TRANSMISSION SYSTEM THAT IS THE FOCUS OF THIS APPLICATION.

A: The Hazard System Transmission Area consists of the transmission and sub-transmission facilities that provide service in portions of Kentucky Power's service area within the six following counties: Breathitt, Knott, Leslie, Letcher, Morgan and Perry. The Hazard System Transmission Area lies within the blue circle on the figure on page 2 of EXHIBIT 12 to the Application. The principal Kentucky Power source into the area is the Beaver Creek-Hazard 138 kV line. In addition, there are 161 kV interconnections with the Tennessee Valley Authority and Kentucky Utilities Company. The area load on the Hazard Area Transmission System is approximately 300 MW.

The Hazard Area Transmission System contains a 69 kV sub-transmission loop that includes the Blue Grass, Combs, Bonnyman, Shamrock, Engle, Bulan, and Hazard Stations. It serves a winter peaking load. The load consists largely of residential load, with some commercial and industrial customers. The industrial load comprises mainly small coal mines. The commercial load is concentrated around the cities of Hazard (Perry County) and Jackson (Breathitt County).

Q. HAVE ANY CONTINGENCIES OCCURRED ON THE HAZARD AREA TRANSMISSION, INCLUDING THE SUB-TRANSMISSION SYSTEM, THAT RESULTED IN OPERATIONAL PROBLEMS? IF SO, PLEASE DESCRIBE THE CIRCUMSTANCES.

A: Yes, there have been two events in the past three years. The first event occurred on June 16, 2008 when one side of the Hazard to Bonnyman 69 kV loop was separated after a 69 kV switch was opened at the Combs Station for maintenance. This resulted in all the load for Bulan, Engle, Shamrock, Bonnyman, Chavies, Haddix, Combs, and Jackson Stations being fed by a long 69 kV sub-transmission line from the Hazard Station. The thermal loading caused the line conductors to sag which resulted in contact with trees growing under the line in the section of the line between Hazard and Bulan Stations. The tree contact caused the 69 kV breaker at Hazard Station to open which interrupted service to over 12,000 customers served from the stations previously mentioned. The system was quickly restored to normal, but this event exposed the weakness of the sub-transmission loop even at loadings below peak conditions. As a temporary measure, additional right-of-way clearing was performed on the 69 kV loop to gain additional clearance.

The second event occurred on March 1, 2009 when a large tree growing outside of the right-of-way fell on one side of the Hazard to Bonnyman 69 kV loop in the section

between Bluegrass and Combs Stations. This tree damaged or destroyed several structures located on a steep mountainside. Several days were required to complete repairs and restore the line to service. In the interim, the loop was again fed radially from Hazard Station, and no loading or voltage problems were anticipated based upon forecasted moderate temperatures.

Notwithstanding the forecast, the outside temperature dropped to 10° F on March 3, 2009. In the early morning hours, low voltage conditions were experienced at Bonnyman Station as distribution loads began to increase. Several commercial and industrial customers were requested to curtail load, and the voltage level at Bonnyman stabilized. If the voltage at Bonnyman Station had continued to drop, the plan was to shed load by using remote control to open one or more distribution circuits. Fortunately, by 8:00 a.m. the problem was alleviated as the ambient temperature increased after sun-up.

Q: WHAT LED TO KENTUCKY POWER'S STUDY OF TRANSMISSION NEEDS IN THE HAZARD TRANSMISSION AREA?

A: In addition to the two single-contingency events noted above, there have been other transformer and 69 kV loading concerns during single-contingency events. In addition, the voltage at the end of the long line from Bonnyman to Jackson is affected by contingencies on the Hazard 69 kV sub-transmission loop. Finally, PJM identified anticipated thermal overloads and consequent bulk electric system violation on the Hazard-Topmost 138 kV transmission line in the case of potential outage of the Wooten-Hyden 161 kV and the Stinnett-Pineville 161 kV lines (double contingency outage).

Q: WITH THAT AS BACKGROUND, PLEASE DESCRIBE THE PROCESS BY WHICH KENTUCKY POWER COMPANY IDENTIFIES THE NEED FOR IMPROVEMENTS TO ITS TRANSMISSION SYSTEM.

A: AEP and PJM on behalf of Kentucky Power conduct annual planning studies to ensure the adequacy of the transmission and sub-transmission systems to maintain reliable service. PJM evaluates the AEP system adequacy for adherence to the criteria and compliance requirements from a regional perspective (top down). AEP undertakes the same process by studying the system from a local perspective (bottom up). The planning process addresses two major contingency sets to ensure standards are being maintained. The first set of planning contingencies analyzes the impact that single contingencies cause on the system (loss of a single generator, line, or transformer). These are classified as NERC Category B contingencies. The second set of contingencies apply only to facilities 100 kV and above; it includes multiple and more extreme contingencies classified as NERC Category C contingencies. Under these contingency conditions Kentucky Power and PJM analyze the performance of the system and identify violations that do not meet thermal and voltage performance guidelines. Being able to maintain our transmission network within the planning criteria range of acceptable voltage and thermal levels is critical to ensure safe and reliable service to the customers.

Q: WAS THAT PROCESS FOLLOWED IN CONNECTION WITH THIS PROJECT?

A: Yes. In 2009, PJM and AEP Transmission Planning studied the need for improvements to the transmission system serving area in and around Hazard, Kentucky as a part of the annual planning process. In May, 2010, Kentucky Power concluded on the basis of its investigation that the proposed Bonnyman-Soft Shell 138 kV Transmission line and

associated work that are the subject of this proceeding were required to provide reliable service to the Hazard Area in order to meet established planning criteria.

Conditions To Be Addressed By The Proposed Project

Q: CAN YOU PLEASE PROVIDE THE COMMISSION WITH A GENERAL OVERVIEW OF THE EXISTING HAZARD AREA TRANSMISSION SYSTEM PERFORMANCE?

A: As part of the annual study process adhered to by PJM and AEP on behalf of Kentucky Power, low voltage conditions and heavy thermal loading conditions were identified in the study of the Hazard Area under contingency conditions. Voltage and thermal issues arise as a result of single-contingencies on the Hazard 69 kV sub-transmission loop. Other thermal overload issues appeared in the case of a double contingency for the Wooten-Hyden 161 kV and Pineville-Stinnett 161 kV sources.

Q: PLEASE EXPLAIN THE NATURE OF THE LOW VOLTAGE AND 69 KV THERMAL LOADING CONDITIONS THAT MIGHT RESULT FROM SINGLE OUTAGE CONTINGENCIES ON KENTUCKY POWER'S HAZARD 69 KV SUB-TRANSMISSION LOOP.

A: A thermal violation occurs when a line or piece of equipment loads in excess of 100% of its rated value. An example of this violation occurring as a result of a single contingency on the 69 kV sub-transmission would be for the outage of the Blue Grass-Combs 69 kV line. The result of this outage causes the Hazard Transformer #1 to load to 131%, the Hazard-Bulan 69 kV line to load to 130%, and the Bulan-Shamrock 69 kV line to load to 115%. This is illustrated at pages 4-6 of EXHIBIT 12 to the Application.

Q: CAN YOU PROVIDE THE COMMISSION WITH MORE DETAIL REGARDING THE EFFECT CONTINGENCIES ON THE HAZARD SUB-TRANSMISSION LOOP HAVE ON VOLTAGE AT THE END OF THE BONNYMAN TO JACKSON 69 KV LINE?

A: Yes. Under single contingency conditions, loss of the Blue Grass-Combs 69 kV line will cause voltages along the 69 kV line to Jackson drop below 0.92 %. There is approximately 24 miles of source feed from Bonnyman to Jackson, and the loss of 1 of 2 sources into the Bonnyman Station essentially turns the support into Jackson into a 34 mile line from Hazard, with significant load between Hazard and Jackson Stations. Pages 4 and 6 of EXHIBIT 12 to the Application illustrates this.

Q: WHAT IS THE POTENTIAL THERMAL OVERLOAD RESULTING FROM A DOUBLE-CONTINGENCY THAT YOU MENTIONED?

A: An overload of 130% on the Hazard-Topmost 138 kV line was identified with the outage of the Wooten-Hyden 161 kV and Stinnett-Pineville 161 kV transmission lines. This outage accounts for the loss of the two strongest sources into the area. With the loss of these sources, the 138 kV line from Hazard-Topmost overloads in an effort to compensate for the absence of two strong sources feeding the area. This is illustrated on page 6 of EXHIBIT 12 to the Application.

Associated Station Improvements

Q: PLEASE DESCRIBE THE PLANNED WORK AT KENTUCKY POWER'S BONNYMAN, SOFT SHELL, HADDIX AND BECKHAM STATION THAT WILL BE UNDERTAKEN IN CONNECTION WITH THE CONSTRUCTION OF THE TRANSMISSION LINE.

A: The Bonnyman Station improvements will include the following: (a) installation of a 138 kV/69 kV, 130 MVA or similar MVA rated transformer; (b) installation of a 138 kV circuit breaker pointing towards Soft Shell Station; (c) installation of devices for line

protection and control; (d) installation of a sub-transmission transformer relay package on the new transformer; (e) installation of a 69 kV breaker with relay control on the low side of the 138 kV/69 kV transformer; (f) replacement of relays on circuit breaker A & C with standard sub-transmission line relaying package; (g) replacement of the 69 kV bus differential with relaying devices; and (h) installation of a 24' W x 32' L x 10' H building for housing control equipment. These are facility upgrades to accommodate the new 138 kV source.

Q: **WHAT WORK IS PLANNED FOR THE REMAINING THREE STATIONS?**

A: The Haddix Station minor improvements will include the installation of a 5.4 MVAr, 69 kV capacitor bank. The Beckham Station minor improvements will include the installation of a 43.2 MVAr, 138 kV capacitor bank, and installation of a 24' W x 32' L x 10' H building for housing control equipment. These will assist with the overall voltage profile of the area. The Soft Shell Station improvements will allow for a new 138 kV circuit breaker pointing towards Bonnyman Station.

Effect Of The Proposed Project

Q: **WILL THE PROJECT THAT IS THE SUBJECT OF THIS PROCEEDING ADDRESS THESE ISSUES?**

A: Yes. This project adds a 138 kV source into an area that currently does not have strong source, but experiences heavy loading of the 69 kV network. In the absence of an area source, the 69 kV network does not have the adequacy to perform up to established criteria standards. This leaves the system exposed to safety and reliability concerns. The project will:

- Alleviate the bulk electric system ("BES") violations identified by PJM Interconnection ("PJM") - the regional transmission organization. PJM identified thermal overloads during double contingency outage conditions.

- Enhance operational performance and improve reliability of service for approximately 300 MW of load.

- Solve 69 kV thermal and voltage concerns due to single contingencies and provide additional transformer capacity.

- Allow Kentucky Power to serve future new load.

Other Benefits From And Considerations Regarding The Project

Q: WILL THE PROPOSED PROJECT PROVIDE ANY ADDITIONAL BENEFITS?

A: Yes. The proposed project will provide the following additional benefits:

- It will provide the necessary flexibility for routine maintenance of transmission and sub-transmission facilities.

- Permit a future 138 kV transmission line from the Bonnyman Station to the Hazard Station to close the 138 kV loop.

- Provide calculated line loss savings of approximately 3.0 MW.

Q: WERE ALTERNATIVES TO THIS PROJECT CONSIDERED?

A: Yes. Kentucky Power investigated creating a second 161 kV interconnection with Kentucky Utilities Company ("KU") at Hyden Station and connecting Kentucky Power's Bonnyman Station. It was determined that coordination with KU could adversely affect cost (by possibly requiring significant capacity upgrades to KU's EHV system), and increase scope lead time for the project. In addition, the Company examined re-conductoring the Hazard 69 kV sub-transmission loop. Subsequent load flow studies indicated this would not alleviate the identified double contingency outages on the 138 kV systems.

Q: WILL THE PROPOSED PROJECT RESULT IN WASTEFUL DUPLICATION?

A: No. Kentucky Power's existing 138 kV Beaver Creek-Hazard transmission line is the sole AEP source supplying the Hazard Area. It serves approximately 73 MW of the 300

MW Hazard Area load. 134 MW of the Hazard Area load is served through Kentucky Utilities Company's Delvinta-Hyden and Arnold-Hyden transmission lines through interconnections with the Hyden-Wooten 161 kV transmission line and the Wooten Station. In addition, TVA supplies 98 MW of the Hazard Area load by means of the tie from the Tennessee Valley Authority's Pineville Station to the Kentucky Power's Stinnett Station. None of these ties is sufficient to remedy the 69 kV single contingency voltage and thermal issues discussed above. Nor can they be used to address the bulk electric system violations.

Q: COULD IMPROVEMENTS TO THE TVA OR KENTUCKY UTILITIES COMPANY'S TRANSMISSION SYSTEM ADDRESS THESE ISSUES ON KENTUCKY POWER'S SYSTEM AT A LESS COST?

A: No TVA or Kentucky Utilities facilities currently exist that could address the Hazard Area voltage and thermal concerns.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?

A: Yes.

VERIFICATION

The undersigned, Michael G. Lasslo, being duly sworn, deposes and says he is the Manager, Distribution and Customer Services, Hazard District, Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Michael G. Lasslo

MICHAEL G. LASSLO

COMMONWEALTH OF KENTUCKY)
) **SS**
COUNTY OF PERRY)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Michael G. Lasslo this 20 day of September, 2011.

Logan Cornett (SEAL)
Notary Public

My Commission Expires:

02/09/2015

DIRECT TESTIMONY OF

GEORGE T. REESE
GAI CONSULTANTS

ON BEHALF OF

KENTUCKY POWER COMPANY

I. INTRODUCTION

Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A: My name is George T. Reese. I am employed by GAI Consultants, Inc. ("GAI"), 385 East Waterfront Drive, Homestead, Pennsylvania 15120 as Senior Environmental Manager.

II. BACKGROUND

Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A: I hold a Bachelor of Science degree in Biological Sciences from the University of Pittsburgh, and a Master of Science Degree in Biology from Clarion University of Pennsylvania. I have been associated with GAI since 1987 and have had various technical, supervisory, and managerial roles in many of GAI's utility transmission (electric and gas) siting projects since 1987. I have more than 20 years experience in siting, licensing/certification and permitting of natural gas and electric transmission lines. I routinely oversee the work of GAI technical staff who are responsible for the environmental, cultural resources, and engineering aspects of GAI's transmission line projects.

Q: PLEASE DETAIL FOR THE COMMISSION GAI'S EXPERIENCE IN ANALYZING ALTERNATIVE ROUTING FOR ELECTRIC TRANSMISSION LINES.

A: GAI has been conducting siting, licensing, and permitting efforts for electric transmission lines for over 25 years. This has included the consideration of over 5,000 miles of lines in the United States, Central America, the Caribbean, and Southeast Asia.

Q: HAVE YOU PREVIOUSLY BEEN INVOLVED IN ELECTRIC TRANSMISSION LINE SITING STUDIES?

A: Yes. I have served as Project Manager or otherwise supervised the preparation of over 25 siting studies or reviews in the states of Kentucky, Virginia, West Virginia, Pennsylvania, Ohio, Indiana, and Michigan as well as in Honduras, El Salvador, and the Dominican Republic

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION ON BEHALF OF KENTUCKY POWER?

A: No. I did, however, serve as Project Manager or otherwise supervised the preparation of the following studies filed on behalf of Kentucky Power: Leeco 138 kV Transmission Line Siting Study (Case No. 2009-00235); Soft Shell 138 kV Transmission Line Siting Study (Case No. 2007-00430); and Hays Branch-Morgan Fork 138 kV Transmission Line (Case No. 2007-00155).

III. PURPOSE OF TESTIMONY

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A: I am testifying in support of Kentucky Power Company's ("Kentucky Power" or "Company") application for a Certificate of Public Convenience and Necessity to construct the proposed Bonnyman-Soft Shell 138 kV transmission line. In my testimony I:

- Describe the methodology employed by GAI in conducting the siting study and Environmental Impact Analysis ("EIA") that was used in identifying and evaluating the alternative transmission line routes;

- Describe the results and conclusions of the siting study and EIA, as well as the basis for the recommendation of the preferred alternative route.

IV. STUDY METHODOLOGY

Q. PLEASE DESCRIBE FOR THE COMMISSION THE PURPOSE OF THE SITING STUDY AND EIA.

A: GAI was retained by the Company to identify and evaluate alternative transmission line routes for the proposed 138 kV transmission line connecting the Company's Bonnyman Station in Perry County, Kentucky and its Soft Shell Station in Knott County, Kentucky. In addition, GAI prepared an EIA in which it evaluated the environmental suitability and feasibility of the project and the alternatives that were reviewed. The combined siting study and EIA ("Report") is filed as EXHIBIT 13 to the application. I served as the Project Manager on behalf of GAI in connection with its work on the Project. The line will be constructed on steel pole H-frame, 3-pole structures, and steel lattice towers. The proposed line will require a 100 foot right of way.

Q: WHAT METHODOLOGY WAS EMPLOYED BY GAI IN DEVELOPING THE SITING REPORT AND EIA.

A: Before describing the methodology in more detail, let me note that the methodology employed is described in detail in Section 2 of the Report. Section 3 of the Report discusses the environmental constraints within the study area that were considered in developing and evaluating the alternative routes. The development of the alternative routes is described in Section 4.0 of the Report.

Q: WITH THAT AS BACKGROUND, PLEASE OUTLINE THE METHODOLOGY EMPLOYED?

A: In general, the methodology consisted of identification of the study area by GAI; development by GAI in coordination with Kentucky Power of siting criteria; the compilation of a data base of relevant information concerning the study area; the identification, evaluation, and refinement of line segments; the combination of line segments to identify the best alternative routes; and the evaluation of the alternative routes to determine the preferred route.

Q: IS THIS METHODOLOGY SIMILAR TO THAT EMPLOYED BY GAI IN OTHER SUCH STUDIES?

A: Yes.

Q: PLEASE DESCRIBE IN MORE DETAIL THE FIRST STEP OF THE METHODOLOGY?

A: With the termini of the line established at the Bonnyman Station in Perry County and the Soft Shell Station in Knott County, the first step was to identify a study area for locating the transmission line corridor. The study area generally consisted of the area between the Bonnyman Station and the Soft Shell Station. In addition, and to allow for the consideration of potential routes exiting the stations in all directions, the study area was extended approximately two miles north and 3.5 miles east of the Soft Shell Station, and two miles south and 2.5 miles west of the Bonnyman Station. GAI ultimately used a 277-square mile area in Perry County (including the City of Hazard), Knott County, and Breathitt County as the study area. Figure 1 of the Report shows the study area.

Q: WHAT WAS THE NEXT STEP?

A: GAI next developed the siting criteria to be used in locating the transmission line corridor. The criteria had five primary objectives. The first objective was to avoid or

minimize both present and anticipated future land use conflicts. The second objective was to limit the effect of the proposed construction on human, natural, cultural, and visual resources. The third objective sought to minimize regulatory conflict. Fourth, the criteria addressed the construction, operation, maintenance, and project completion requirements provided by Kentucky Power. The final objective assessed stakeholder support and concerns.

Q: **WHAT FACTORS WERE CONSIDERED IN CONNECTION WITH THE FIRST OBJECTIVE?**

A: In addressing the first objective GAI assessed existing land use, including the presence and proximity of residences, business and commercial structures, schools, churches, airports, oil and gas wells, and mining activities. In addition, future plans for residential, industrial, and commercial development, as well as mining, also were considered.

Q: **WHAT FACTORS DID GAI CONSIDER IN ASSESSING THE POSSIBLE IMPACT OF THE PROPOSED CONSTRUCTION ON HUMAN, NATURAL, CULTURAL, AND VISUAL RESOURCES?**

A: These factors included the presence in and proximity of the following natural and cultural resources: wetlands, streams, forests, prime farmland soils, previously documented architectural and archeological resources, rare or endangered species, as well as recreational and aesthetic resources such as bikeways, scenic byways, trails and parks.

Q: **WHAT IS MEANT BY "REGULATORY CONFLICT" AS USED IN CONNECTION WITH THE THIRD OBJECTIVE?**

A: Simply that in siting the transmission line corridor an effort was made to eliminate or avoid additional regulatory requirements, such as those resulting from the presence of wetlands or endangered species, for example, in or near the corridor.

Q: WHAT FACTORS DID GAI CONSIDER IN ASSESSING THE FOURTH OBJECTIVE?

A: The fourth objective addressed the engineering, logistical, and other technical requirements associated with the construction, operation and maintenance of the proposed line. These included minimizing the number of structures required, limiting the number of angles in the route, as well as the size of the required structures Finally, other factors affecting the cost of construction, operation, and maintenance were considered, including availability of existing access roads.

Q: WHO WERE THE STAKEHOLDERS CONSIDERED IN CONNECTION WITH THE FINAL OBJECTIVE?

A: Stakeholders included coal and gas companies and other property owners in the vicinity of the proposed line, as well as state and local public officials and agencies whose regulatory or governmental interests might be implicated by the proposed construction.

Q: WHAT WAS THE THIRD STEP IN THE METHODOLOGY EMPLOYED BY GAI?

A: Once the search area was identified, and the factors to be used in the analysis were developed, a data base of information relevant to each the factors was developed for the search area. In addition to compiling information, GAI also developed a GIS data base for use in identifying and evaluating the alternatives. In developing the data base, numerous sources were reviewed and relevant information compiled, including that gained from:

- Literature review and data collection from published data, aerial photographs, and maps.
- Discussions with public officials, land owners concerning present and future land use.
- Ground reconnaissance.

- Discussions with state and federal officials regarding endangered or threatened species and cultural resources. These included United States Fish and Wildlife Service ("FWS"), Kentucky State Nature Preserves Commission, Kentucky Department of Fish and Wildlife Resources and the Kentucky Heritage Council.

- Discussions with mineral and natural resource owners in the search area to identify existing and future conflicts between current and future resource extraction operations and the proposed line. In connection with this aspect of compiling the data base, Kentucky Power or representatives of GAI met with Kentucky River Properties, James River Coal Company, Kentucky Fuel Corporation, Arch Coal, Inc. (formerly ICG), TECO, and Frasure Creek Coal.

- Efforts to work with major landowners to identify conflicts with each of the alternative corridors for the proposed line and present and future land use.

- Input from the general public.

Q: **WHAT WAS THE PURPOSE OF MEETING AND WORKING WITH LARGE LANDOWNERS?**

A: Typically, Kentucky Power would be required to move the line if the area it traverses is later surface-mined. It thus is critical that plans for future mining be identified, and those areas avoided if possible, in planning the line. In addition, Kentucky Power worked with the University of Kentucky, a large landowner in Knott, County, to re-route the line around a stream buffer conservation easement.

Q: **WERE ONLY LARGE LANDOWNERS CONTACTED?**

A: No. Once Alterative 3 was tentatively identified as the preferred route, Kentucky Power right-of-way agents met with or spoke to each landowner over whose property the line was projected to pass. To date, of the 65 landowners contacted, only four have expressed objections to the proposed route. The Company continues to work with these landowners and is optimistic a positive outcome will be achieved.

Q: HOW WAS INPUT FROM THE GENERAL PUBLIC OBTAINED?

A: Kentucky Power conducted a public workshop in Hindman, Kentucky on December 7, 2010 and in Hazard, Kentucky on December 8, 2010. The workshops were preceded by an extensive public notification campaign. Approximately 42 people attended the Hindman workshop; 26 people attended the Hazard workshop. At the workshops representatives of Kentucky Power provided information on the Project, were available to answer questions, and collect concerns from the public. In addition, information regarding the Project was made available to the public through a website.

Q. IS IT ANTICIPATED THE PROJECT WILL AFFECT THE FEDERALLY PROTECTED BATS?

A: No. GAI and Environmental Innovations, Inc. (ESI) met and worked with (FWS), which recommended minimizing forest clearing to extent practicable. As a result, forest clearing was considered during route selection. Alternative 3 will require a moderate amount of forest clearing (173 acres.) Alternatives 4 and 5 would require the greatest amount of forest clearing (219 and 209 acres respectively).

Q. WHAT STUDIES ARE REQUIRED CONCERNING THE FEDERALLY PROTECTED BATS?

A: During the Summer of 2011, ESI completed the FWS approved *mist net studies* for the proposed preferred route and its associated access roads. No federally protected bats were captured. This Fall and Winter, ESI will conduct portal searches (potential bat hibernaculum). Both studies will be submitted to the FWS for the required concurrence before forest clearing begins. No federally protected bat impacts are anticipated.

Q: YOU PREVIOUSLY INDICATED THAT THE FOURTH STEP IN THE METHODOLOGY WAS THE IDENTIFICATION AND EVALUATION OF LINE SEGMENTS. WHY WERE LINE SEGMENTS USED?

A: Line segments are short stretches of proposed right-of-way that are created to avoid the known constraints. By using shorter segments obvious constraints can more easily avoided and a finer level of discrimination is achieved in designing the line.

Q: WAS THE ENTIRE STUDY AREA AVAILABLE IN CREATING THE SEGMENTS?

A: No. The usable portions of the study area were constrained by current and planned mining activities to the north of Ky. Route 80, as well as urban development along Ky. Route 80 and in the Hazard area. Once the usable area was identified, transmission line segments that could be combined to form the alternative corridors between the Bonnyman Station and the Soft Shell Station were next identified. In developing line segments, GAI used a two-tier process.

Q: PLEASE EXPLAIN THIS TWO-TIER PROCESS.

A: First, three potential corridors linking the Bonnyman Station and the Soft Shell Station were identified within the confines of the usable territory within the study area. The northern corridor lies generally to the north of Ky. Route 80. The central corridor follows the path of Ky. Route 80, while the southern corridor lies to the south of Ky. Route 80. Then line segments were identified within each of these three corridors. In particular, GAI sought to identify those segments that could be used to construct the most feasible corridors, while avoiding major environmental and socio-economic impacts. These segments were further evaluated, with segments being added and deleted, based upon input from the public, and state and local officials and agencies.

Q: **WHAT WAS THE FOURTH STEP IN THE METHODOLOGY?**

A: The line segments were combined to form five alternative transmission line paths. The segments making up each route are presented in Table 3 to the Report. More information on the development of the five alternatives is provided in Sections 4.0, 4.1 and 4.2 of the report.

Q: **WHAT WAS THE FINAL STEP IN THE PROCESS?**

A: The five alternative routes were evaluated using the criteria and a preferred route was selected.

V. RESULTS AND CONCLUSIONS OF THE STUDY

Q: **YOU PREVIOUSLY INDICATED THAT FIVE ALTERNATIVE ROUTES WERE DEVELOPED. WILL YOU PLEASE DESCRIBE EACH OF THOSE ROUTES.**

A: Yes. The five alternative routes are presented on Figure 3 to the Report. They can be generally described as follows:

- Route 1 is the northern most route, and at approximately 22.2 miles is the longest of the routes considered. In an effort to avoid development along Ky. Route 80 and forested areas the route primarily traverses previously surface-mined property.
- Route 2 generally follows the path of Route 1, except that it veers to the south near its western (Bonnyman) terminus to avoid residential and commercial development in the vicinity of the Bonnyman Station. It is approximately 21.5 miles long.
- Route 3 is the central-most route of the five routes and is 20.0 miles in length. The eastern two-thirds of its path lies most closely to the Ky. Route 80 corridor of the five routes.

- Route 4 lies south of the Ky. Route 80 for most of its path. It is 20.7 miles in length.
- Route 5 employs a hybrid path. It follows the alignment of Route 4 for the first 13.3 miles from the Bonnyman Station. It then diverges to the north and crosses Ky. Route 80 to follow the alignment of Routes 1, 2, and 3 to the Soft Shell Station. It is 20.7 miles in length.

Q: **WHAT WAS THE PREFERRED ALTERNATIVE?**

A: Alternative 3 was the preferred alternative.

Q: **WHAT WAS THE BASIS FOR GAI'S RECOMMENDATION OF ALTERNATIVE 3 AS THE PREFERRED ALTERNATIVE**

A: Section 4.3 explains the basis for the recommendation of Alternative 3 as the preferred alternative. In addition, Table 4 provides a comparative evaluation of the constraints and opportunities attending each of the alternatives. More generally, GAI recommended Alternative 3 as the preferred alternative because:

- Alternative 3 has significantly less potential risk for future relocation because of future mining activities (10% for Alternative 3 vs. 30% for Alternatives 1 and 2 and 50% for Alternatives 4 and 5.)
- Moderate opposition was expressed to Alternatives 1, 2, 4 and 5. Only four landowners have expressed objections to Alternative 3 to date.
- Alternative 3 (along with Alternatives 1 and 2) is considered more compatible with the landscape because a substantial portion of its path crosses previously mined land. Alternatives 4 and 5 by contrast cross largely wooded areas.
- Alternative 3 (along with Alternatives 1 and 2) requires fewer stream crossings than Alternatives 4 and 5.
- The cost to construct Alternative 3 is estimated to be approximately 10% less than the other alternatives.
- Alternative 3 can make the greatest use of existing access roads for construction and maintenance.

Q: **DID GAI AND KENTUCKY POWER COORDINATE THE LOCATION OF THE PREFERRED ALTERNATIVE TO AVOID CONFLICTS WITH PLANNED RESIDENTIAL, COMMERCIAL, RECREATIONAL MINERAL EXTRACTION DEVELOPMENTS?**

A: Yes. Following extensive coordination with Perry and Knott County officials, mining companies, gas producers and individual land owners within the proposed 100 foot right-of-way, modifications were made to the route to eliminate or minimize conflicts with future development plans.

Q: **DOES THIS CONCLUDE YOUR TESTIMONY?**

A: Yes.

VERIFICATION

The undersigned, George T. Reese, being duly sworn, deposes and says he is the Senior Environmental Manager, that he has personal knowledge of the matters set forth in the forgoing testimony and information contained therein are true and correct to the best of his information, knowledge and belief

George T. Reese

Commonwealth of Pennsylvania)
) SS
County of Allegheny)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by George T. Reese, this the 21 day of September, 2011.

Notary Public

My Commission Expires: 9-4-2012

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Janet L. Toth, Notary Public
Homestead Boro, Allegheny County
My Commission Expires Sept. 4, 2012
Member, Pennsylvania Association of Notaries

DIRECT TESTIMONY OF

RANIE K. WOHNHAS

ON BEHALF OF KENTUCKY POWER COMPANY

I. INTRODUCTION

Q: **PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

A: My name is Ranie K. Wohnhas. My position is Managing Director, Regulatory and Finance, Kentucky Power Company (Kentucky Power, KPCo or Company). My business address is 101 A Enterprise Drive, Frankfort, Kentucky 40602.

II. BACKGROUND

Q: **PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.**

A: I received a Bachelor of Science degree with a major in accounting from Franklin University, Columbus, Ohio in December 1981. I began work with Columbus Southern Power in 1978 working in various customer services and accounting positions. In 1983, I transferred to Kentucky Power Company working in accounting, rates and customer services. I became the Billing and Collections Manager in 1995 overseeing all billing and collection activity for the Company. In 1998, I transferred to Appalachian Power Company working in rates. In 2001, I transferred to the AEP Service Corporation working as a Senior Rate Consultant. In July 2004, I transferred back to Kentucky Power Company and assumed the position of Manager, Business Operations Support and was promoted to Director in April 2006. I was promoted to my current position as Managing Director, Regulatory and Finance effective September 1, 2010.

Q: WHAT ARE YOUR RESPONSIBILITIES AS MANAGING DIRECTOR, REGULATORY AND FINANCE?

A: I am primarily responsible for managing the regulatory and financial strategy for KPCo, including planning and executing rate filings and rulemakings, and insuring that KPCo complies with the requirements of federal and state regulatory agencies. I am also responsible for managing the Company's financial operating plans including an operational interface with all other AEP organizations impacting KPCo results. This includes managing KPCo's financial areas to ensure that adequate resources such as debt, equity and cash are available to build, operate and maintain the electric system assets providing service to retail and wholesale customers.

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A: Yes. I have testified before this Commission in fuel proceedings and filed testimony in the last two base rate case filings (2005-00341 and 2009-00459).

III. PURPOSE OF TESTIMONY

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A: I am testifying in support of Kentucky Power's application for a certificate of public convenience and necessity to construct the proposed Bonnyman-Soft Shell 138 kV transmission line. In my testimony I:

- Provide an overview of the project;
- Discuss generally how the construction advances the public convenience and necessity; and
- Address the financial aspects of the proposed construction.

IV. OVERVIEW OF PROJECT

Q: PLEASE DESCRIBE THE PROPOSED CONSTRUCTION.

A: Kentucky Power is seeking authority to construct a 138 kV transmission line in Perry and Knott Counties, Kentucky. The line will measure approximately 20 miles, and will connect the Company's Bonnyman Station north of Hazard in Perry County, Kentucky, with its Soft Shell Station located in southwestern Knott County. In addition, Kentucky Power's existing Bonnyman Station will be expanded. Associated facilities also will be installed at KPCo's Haddix Station in Breathitt County and its Beckham Station in Knott County and its Soft Shell Station in Knott County.

Q: HOW WILL THE BONNYMAN STATION BE EXPANDED?

A: A new 138kV/69kV transformer will be installed. This will require the expansion of the existing Station facility, which is located on State Route 267 (Typo Road), by approximately 100 feet to the east. Two tracts of land, measuring 0.45 acres and 0.22 acres will be acquired to carry out the expansion.

Q: WHAT WORK WILL BE PERFORMED AT THE SOFT SHELL, HADDIX, AND BECKHAM STATIONS?

A: Capacitor banks will be installed at the Haddix and Beckham Stations. The Soft Shell Station improvements will allow for a new 138 kV line connection to Bonnyman Station. No additional land will be acquired at any of these three stations.

Q: HOW WIDE OF A RIGHT-OF-WAY WILL BE ACQUIRED IN CONNECTION WITH THE PROPOSED TRANSMISSION LINE?

A: Kentucky Power anticipates acquiring a 100-foot right-of-way for the transmission line. There will be 50 feet on each side of the centerline of the transmission line.

Q: **WHAT TYPES OF STRUCTURES WILL BE USED IN CONNECTION WITH THE CONSTRUCTION OF THE TRANSMISSION LINE?**

A: Kentucky Power proposes to incorporate three types of structures in the line. Approximately 19 miles of the proposed 20-mile transmission line will consist of a single circuit and will be supported by steel pole H-frame and 3-pole structures. These structures will support three conductors and two overhead groundwires. The conductors will consist of 1,590 kcm ACSR conductors and the overhead groundwires will consist of one 7#8 alumoweld wire and one fiber optic overhead groundwire, which will be used for relaying communications between stations. The average height of these structures will be 85 feet. Approximately one mile of the proposed 20-mile transmission line will be constructed within the existing Hazard – Bonnyman 69 kV Line 100-foot right-of-way. The existing Hazard – Bonnyman 69 kV structures (wood H-frame and 3-pole structures) will be replaced with steel lattice tower structures to support the new double circuit configuration. The average height of the existing structures is approximately 65 feet and the new steel lattice towers will be approximately 100 feet in height.

Q: **IF THE CERTIFICATE IS GRANTED WHEN DOES KENTUCKY POWER PROPOSE TO BUILD THE LINE AND ASSOCIATED FACILITIES?**

A: The Company anticipates beginning construction in June 2012 and completing work before the end of 2014.

Q: **IN PARAGRAPH 11 OF THE APPLICATION THE COMPANY REQUESTS AUTHORITY TO MOVE THE TRANSMISSION LINE 250 FEET IN EITHER DIRECTION FROM THE CENTERLINE INDICATED IN THE APPLICATION. PLEASE EXPLAIN TO THE COMMISSION THE NEED FOR SUCH AUTHORITY.**

A: Kentucky Power believes the centerline indicated in the Application for the proposed line is the most suitable path for both the landowners over whose property the line will pass

and the Company. Given the length of the line, neither Kentucky Power nor the landowners have been able to walk the length of the entire centerline. Moreover, certain siting issues may become evident only upon construction. As a result, Kentucky Power is seeking authority under limited circumstances to shift the transmission line no more than 250 feet in either direction from the centerline indicated in the Application.

Q: **YOU INDICATE THAT THE AUTHORITY TO MOVE THE LINE THE COMPANY IS REQUESTING WOULD BE AVAILABLE IN ONLY LIMITED CIRCUMSTANCES. WHAT ARE THOSE LIMITS?**

A: There are two limitations. First, neither the line nor its right-of-way will be moved onto the property of a landowner who was not sent a notice of this proceeding in accordance with the applicable regulation. Second, the landowner onto whose property the line will be moved must consent in writing to the move.

Q: **HAS THE COMMISSION GRANTED KENTUCKY POWER SIMILAR AUTHORITY IN ANOTHER CASE?**

A: Yes. By Order dated August 3, 2007, in Case No. 2007-00155, *In the Matter of: The Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 KV Transmission Line In Floyd County, Kentucky*, the Commission granted Kentucky Power authority similar to that requested here. The granted authority in the earlier Floyd County case differed from that being sought here in two respects. First, the Commission's order in the earlier case permitted Kentucky Power to move the line and right-of-way 500 feet (a total width of 1,000 feet) in either direction from the centerline indicated in the application. Kentucky Power is seeking more limited authority in this proceeding to move the line 250 feet (a total width of 500 feet) in either direction. Second, in Case No. 2007-00155 Kentucky Power was limited to placing the line on the property of the owner the line originally was shown as crossing.

Because of the proximity of the proposed path of the Bonnyman-Soft Shell 138 kV transmission line to certain property boundaries, it is possible that the line might have to be moved onto an adjoining owner's property if the original path proves unworkable, and thus it might not be possible to limit the move to the property originally projected to host the line.

Q: **DID KENTUCKY POWER COMPLY WITH THE REQUIREMENTS OF 807 KAR 5:120, SECTION 2(3) BY PROVIDING NOTICE TO ADJOINING LANDOWNERS WHOSE PROPERTY MIGHT BE AFFECTED IF KENTUCKY POWER WERE REQUIRED TO MOVE THE LINE**

A: Yes. Kentucky Power notified those adjoining property owners whose property might be affected by a cross-boundary re-location of the line or right-of-way of that possibility by means of a mailing that complied with the Commission's regulation in all respects. As is the case with any post-order re-location of the line within the boundaries of the property originally slated to be crossed by the line or right-of-way, Kentucky Power will not make a cross-boundary re-location without the consent of the owner onto whose property the line will be moved.

Q: **WILL THE COMMISSION BE INFORMED OF THE FINAL LOCATION OF THE LINE AND THE ADJACENT RIGHTS-OF-WAY?**

A: Yes. Kentucky Power will file with the Commission a survey of the final location of the line after construction is completed. The Company proposes to file an "as-built" survey because the location of the line can shift even after construction begins based upon what is encountered during the construction process. The "as-built" surveys will provide the Commission with the most accurate and complete record of the location of the line.

V. PUBLIC CONVENIENCE AND NECESSITY

Q: ARE THE PROPOSED TRANSMISSION LINE AND ASSOCIATED FACILITIES REQUIRED BY THE PUBLIC CONVENIENCE AND NECESSITY?

A: Yes. The line and associated facilities will allow Kentucky Power to address potential thermal overloading and voltage problems in the area, and improve reliability. Michael G. Lasslo addresses these and other aspects of the need for the proposed construction in more detail in his testimony. The proposed construction advances the public convenience in several respects. First, as George T. Reese describes in his testimony, Kentucky Power's consultant, GAI Consultants, Inc., undertook an extensive analysis in siting the proposed line. Over the course of the more than 15-month process, GAI Consultants identified and then studied five alternative routes in the 277 square mile study area in Perry, Knott and Breathitt Counties, actively solicited input from landowners in the study area, and conducted two public workshops. The purpose of the study was to minimize the environmental, economic, recreational, human, cultural, natural, land use, and visual impact of the proposed line. As Mr. Reese's testimony makes clear, the proposed route achieves these goals. Second, the line will not result in wasteful duplication. Third, the line is the lowest-cost alternative. Finally, the proposed line will provide interstate benefits of the sort identified in KRS 278.020(1).

Q: YOU MENTION THAT THE PUBLIC CONVENIENCE WILL BE SERVED BY IMPROVEMENTS TO RELIABILITY AS A RESULT OF THE PROPOSED LINE. HAS IMPROVING RELIABILITY WITHIN KENTUCKY POWER'S SERVICE AREA BEEN A CONCERN OF THE COMMISSION AND KENTUCKY POWER'S CUSTOMERS?

A: Yes. The comments received during the 2010 public meetings conducted in Ashland, Pikeville and Hazard in connection with Kentucky Power's most recent rate case, *In the*

Matter of: Application Of Kentucky Power Company For A General Adjustment Of Electric Rates, Case No. 2009-00459, made clear that customers within Kentucky Power's service territory value improved reliability of service by Kentucky Power. As further evidenced by the Settlement Agreement agreed to by all of the parties to the rate case but one, and subsequently approved by the Commission in its June 28, 2010 Order, Kentucky Power, the Attorney General, and the Commission likewise place great importance on improving the reliability of the Kentucky Power system. Under the Settlement Agreement approved by the Commission, Kentucky Power agreed to maintain the test year level of $7.237 million in distribution system reliability spending. In addition, Kentucky Power agreed to expend an additional $10 million a year for distribution service reliability, to be funded by the increased rates, and to provide the Commission with detailed information on its distribution reliability plans and results. Although the proposed line will improve transmission system reliability, as opposed to distribution system reliability which was the focus of the rate case settlement, both are important components of overall system reliability. A customer without power does not care whether the problem occurred on Kentucky Power's distribution system or transmission system; the customer is only interested in reliable service and how soon the power will again be available.

Q: WILL THE PROPOSED PROJECT PROVIDE ANY ADDITIONAL BENEFITS?

A: Yes. During the estimated 30-month construction phase, the average on-site workforce in the Hazard area is projected to be between 30 to 40 workers. In addition to these jobs, there will be local purchases of construction materials and services for the project, as well as construction payroll spending in the local area by workers (i.e. room, food,

supplies, and entertainment). Other economic benefits from the project include approximately $10 million dollars injected into the local economy to acquire 20 miles of 100-foot rights-of-way easements. Annual increased property tax revenues from the project are estimated to be: $386,000 in Perry County, $390,000 in Knott County, and $20,000 in Breathitt County.

VI. FINANCIAL ASPECTS OF THE PROPOSED CONSTRUCTION

Q: WHAT IS THE PROJECTED COST OF THE PROJECT?

A: The line and related facilities are expected to cost $62.5 million. That sum is made up of $13.1 million in station costs; $10.4 million for right-of-way acquisition and clearance; and $39 million to construct the line, including the support structures. As I indicated above in connection with that portion of my testimony addressing how the project advances the public convenience, the path selected for the line represents the lowest-cost among the five alternatives studied by GAI Consultants.

Q: THE COMPANY PREVIOUSLY ESTIMATED A COST OF APPROXIMATELY $40 MILLION FOR THE PROJECT. WHY IS THE ESTIMATE BEING PROVIDED WITH THIS APPLICATION 56.2% GREATER THAN THE PRELIMINARY NUMBER?

A: The $40 Million preliminary estimate was a conceptual line estimate using per mile costs derived from recently completed similar projects. These estimates embody large margins of variability because the costs of constructing a transmission line is heavily dependent on the actual terrain, design, and right-of-way chosen. For example, estimated costs of construction labor for erecting steel pole H-frame 138 kV lines in mountainous terrain can vary between $400,000 per mile to $700,000 per mile, or 75%. On a 20-mile line the difference between the high and low estimate for construction labor alone is approximately $6 million. There is similar or greater variability in other components,

including the number and cost of access roads, and the cost of right-of-way clearance. Even more easily estimable costs, such as material costs, can vary plus or minus 10%.

Q: WHAT MAKES UP THE $13.1 MILLION IN ESTIMATED STATION COSTS?

A: A new 138/69 kV transformer will be installed at the Bonnyman Station, along with a new 69 kV bay. A new control house also will be constructed, and certain existing equipment will be removed and retired. Finally, two parcels adjoining the existing station will be acquired in connection with the expansion. The total Bonnyman Station-related costs are estimated to total $7.7 million. At Beckham Station, a new 138 kV capacitor bank will be installed at an estimated cost of $1.9 million. The new 5.4 MVAr, 69 kV capacitor bank planned for the Haddix Station is estimated to cost $1.5 million. Finally, new 138 kV service will be provided out of the Soft Shell Station. In addition, a 138 kV breaker will be installed at the Soft Shell Station along with associated equipment for a total Soft Shell Station related cost of $1.9 million.

Q: IS THE $62.5 MILLION COST SET OUT IN THE APPLICATION THE FINAL COST?

A: It is the best estimate as of the date of this application for the costs. Although this estimate should much more closely approximate the final cost of the project than the preliminary cost provided last year, the final cost will not be known until the project is completed.

Q: HOW WILL THE COST BE FUNDED?

A: Kentucky Power anticipates funding the cost of the line and related facilities through its operating cash flow and other internally generated funds. Prior to beginning construction, Kentucky Power does not anticipate issuing debt or seeking a current rate adjustment to finance the construction of the project. The Company, of course, will

include, as appropriate, the costs associated with the project in its next general rate case, and may re-finance the cost of the project as part of its next debt offering.

Q: DOES THE COST OF THE PROJECT INVOLVE SUFFICIENT CAPITAL OUTLAY TO AFFECT MATERIALLY THE EXISTING FINANCIAL CONDITION OF KENTUCKY POWER?

A: No. Kentucky Power's assets as of June 30, 2011 totaled $1,561 million. The cost of this project thus represents an increase of approximately 4% in the Company's total assets. Kentucky Power will not delay or abandon any needed capital expenditures to finance the proposed construction.

Q: WHAT IS THE PROJECTED COST OF OPERATION OF THE PROPOSED FACILITIES AFTER THEY ARE COMPLETED?

A: Kentucky Power projects the annual operating cost will be $50,000, exclusive of ad valorem taxes. The projected annual additional ad valorem taxes resulting from the project are expected to total approximately $780,000.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?

A: Yes.

VERIFICATION

The undersigned, Ranie K. Wohnhas, being duly sworn, deposes and says he is the Managing Director, Regulatory and Finance, Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Ranie K. Wohnhas

Commonwealth of Kentucky)
) Case No. 2011-00295
County of Franklin)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Ranie K. Wohnhas this the 28th day of September, 2011.

Judy K Cosgrist
Notary Public

My Commission Expires: January 23, 2013

CASE NO: 2011-00295

CONTAINS

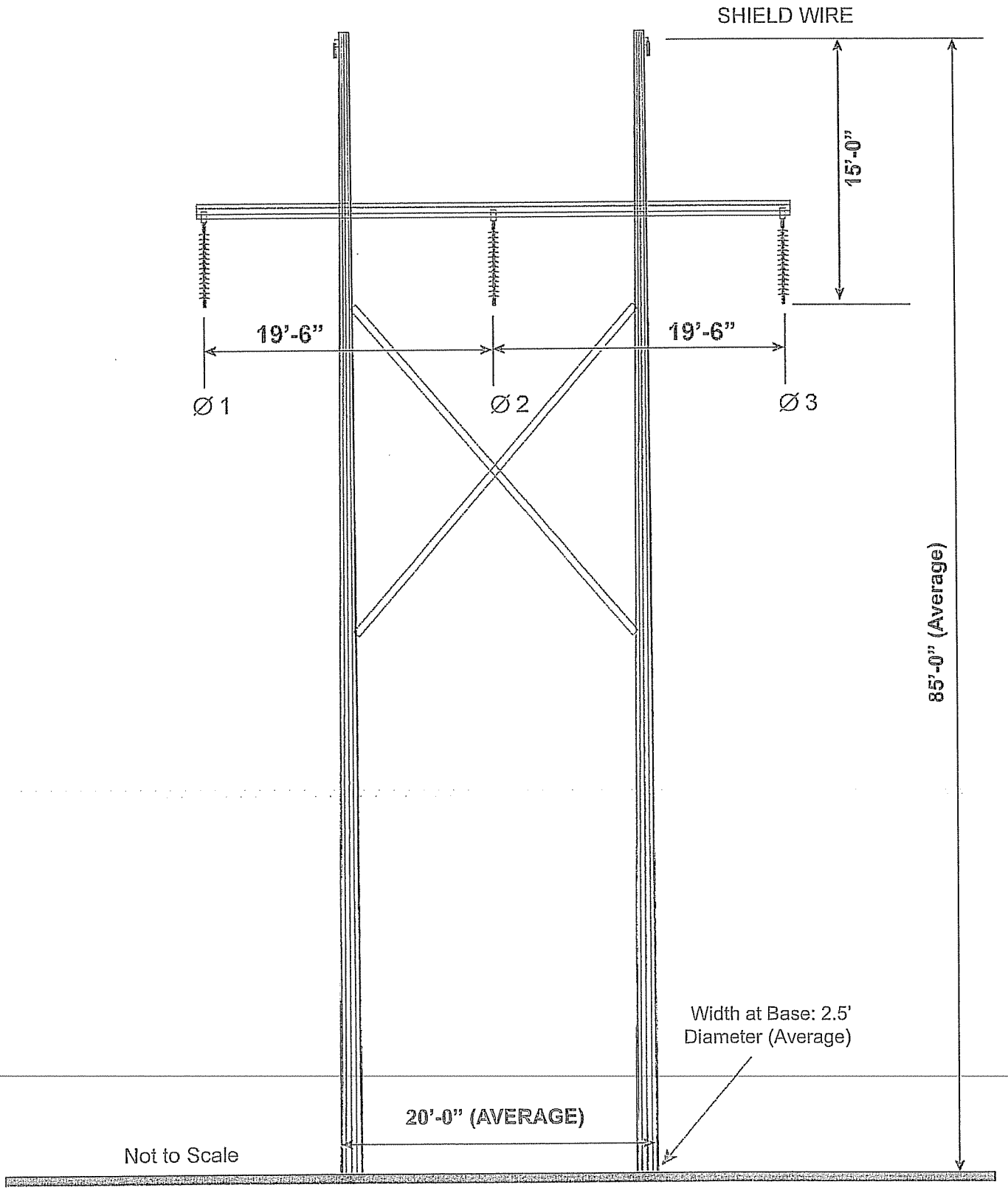
LARGE OR OVERSIZED

MAP(S)

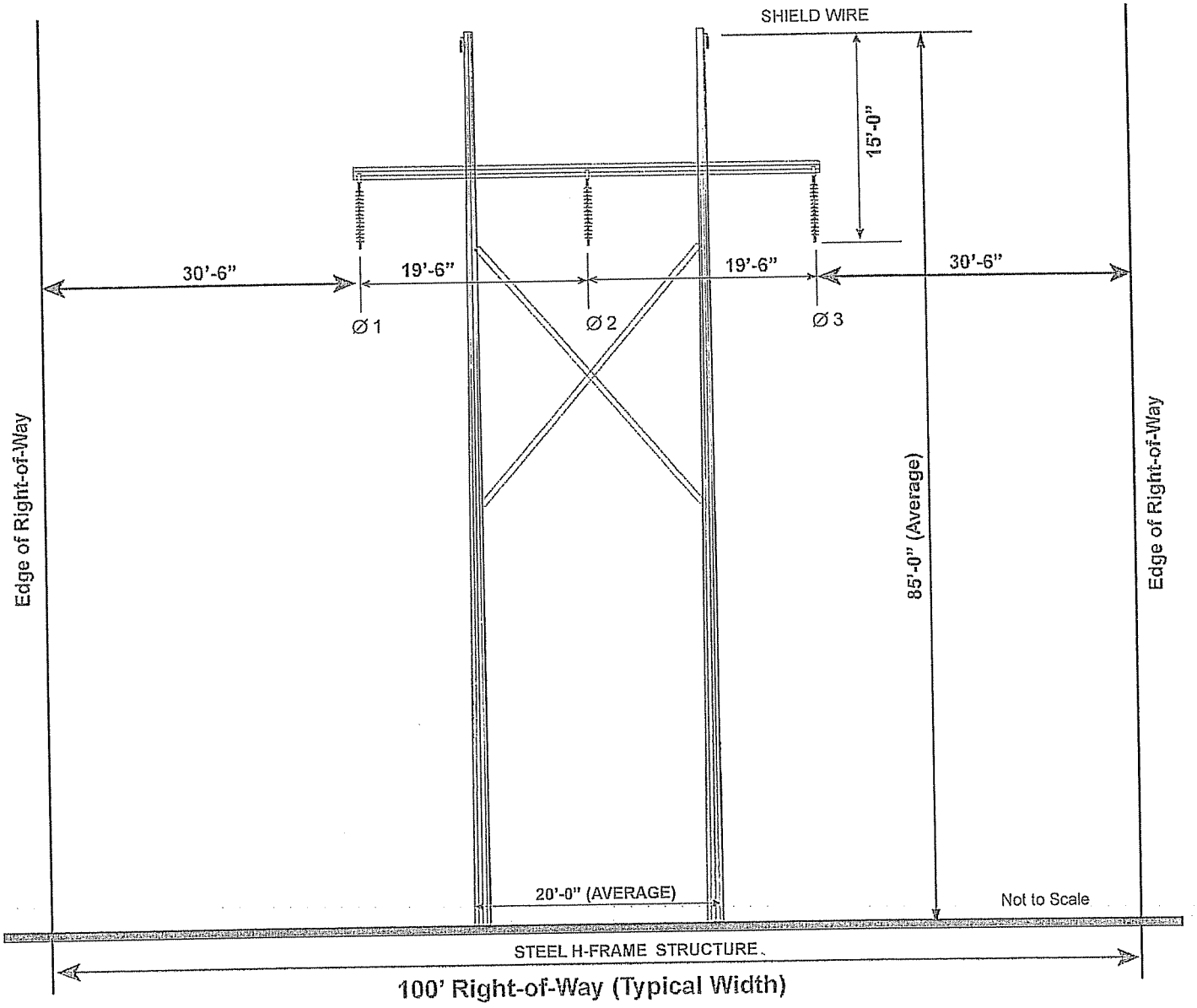
RECEIVED ON: September 29, 2011

KPSC Case No. 2011-00295
Exhibit 4

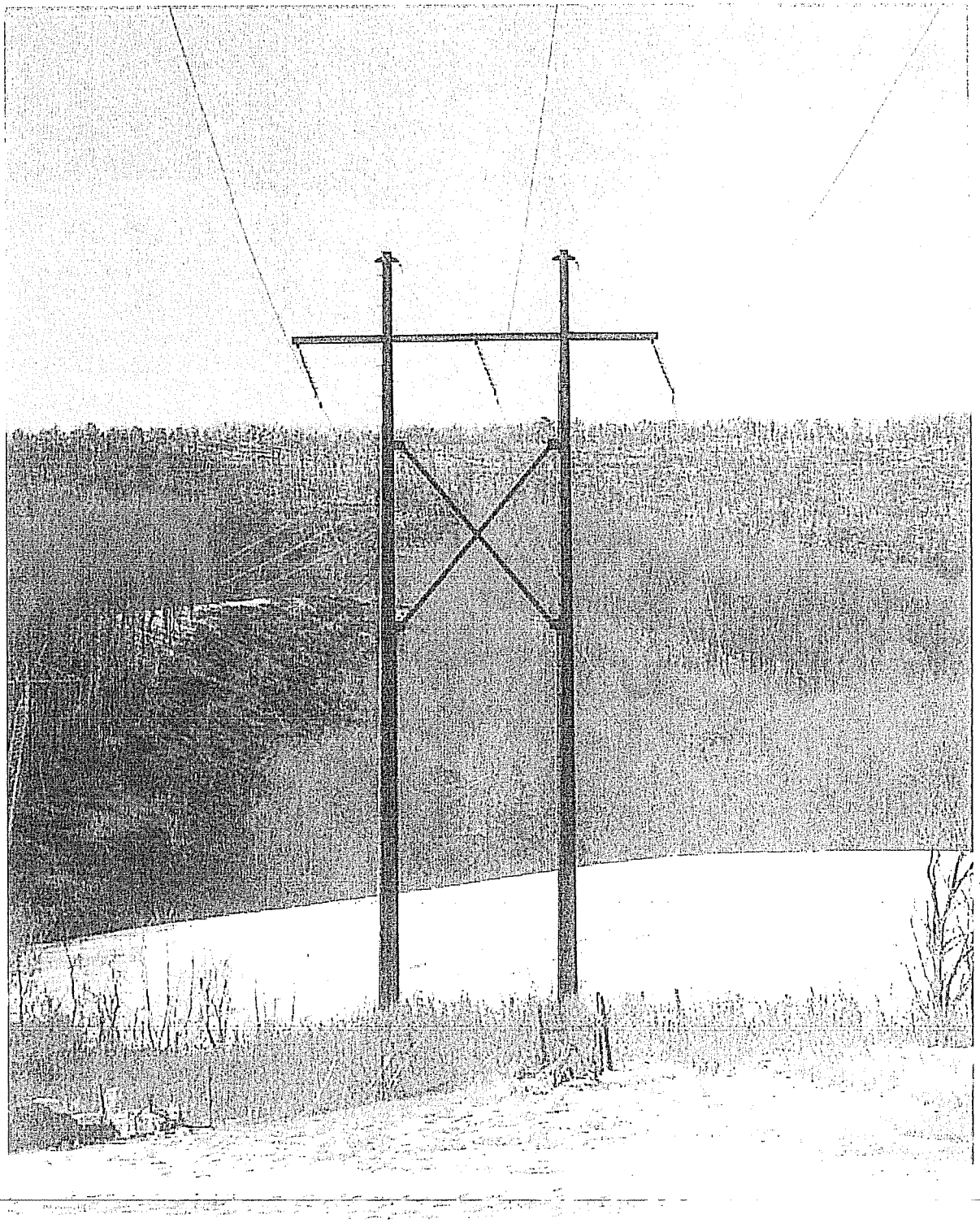
TYPICAL H-FRAME STRUCTURE



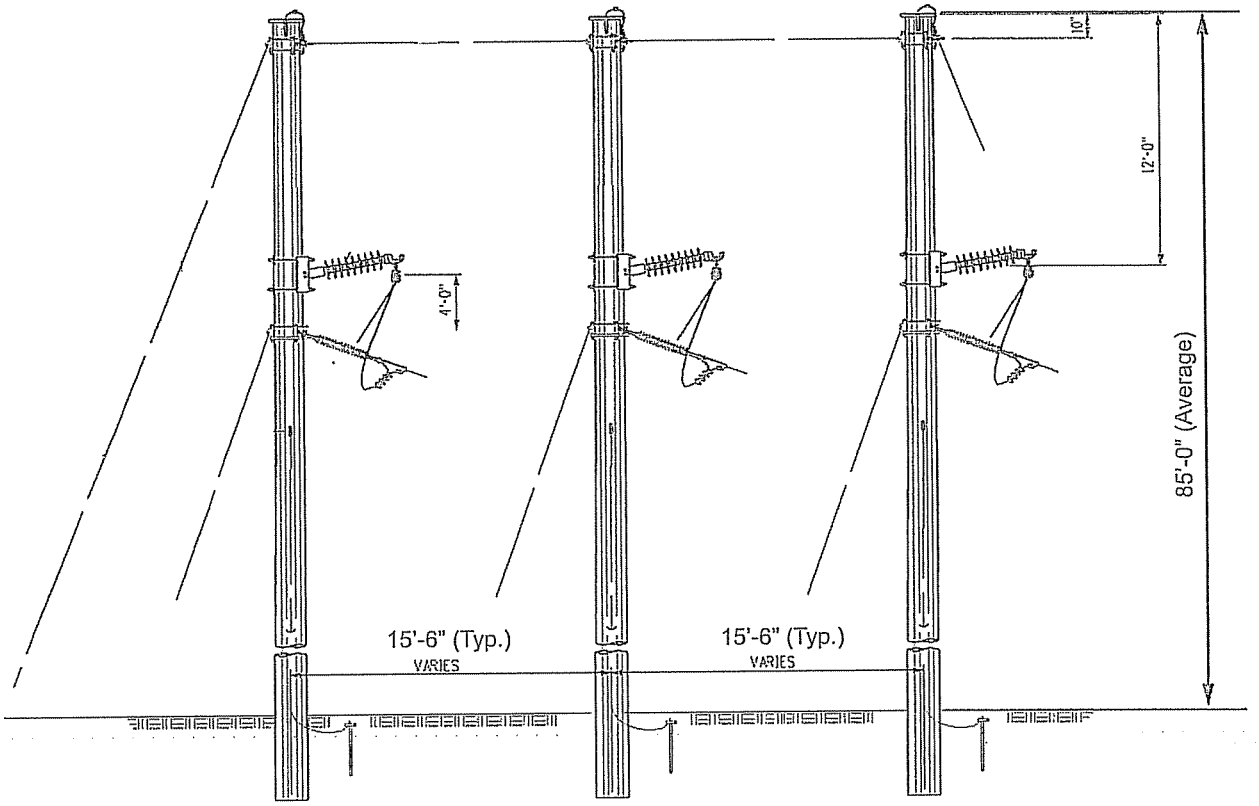
TYPICAL H-FRAME STRUCTURE



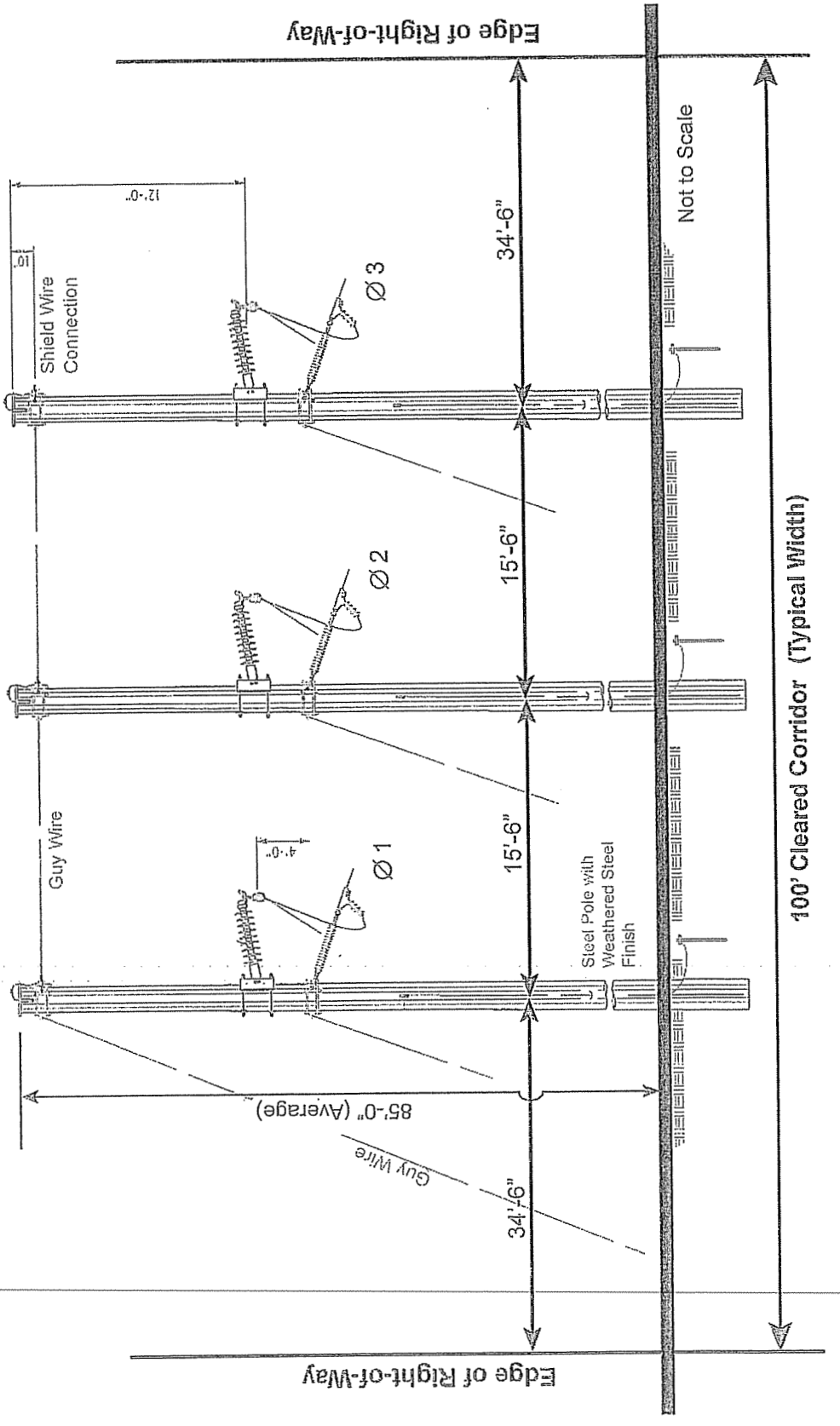
TYPICAL H-FRAME STRUCTURE
Photograph of Comparable Existing Structure



TYPICAL 3-POLE STRUCTURE

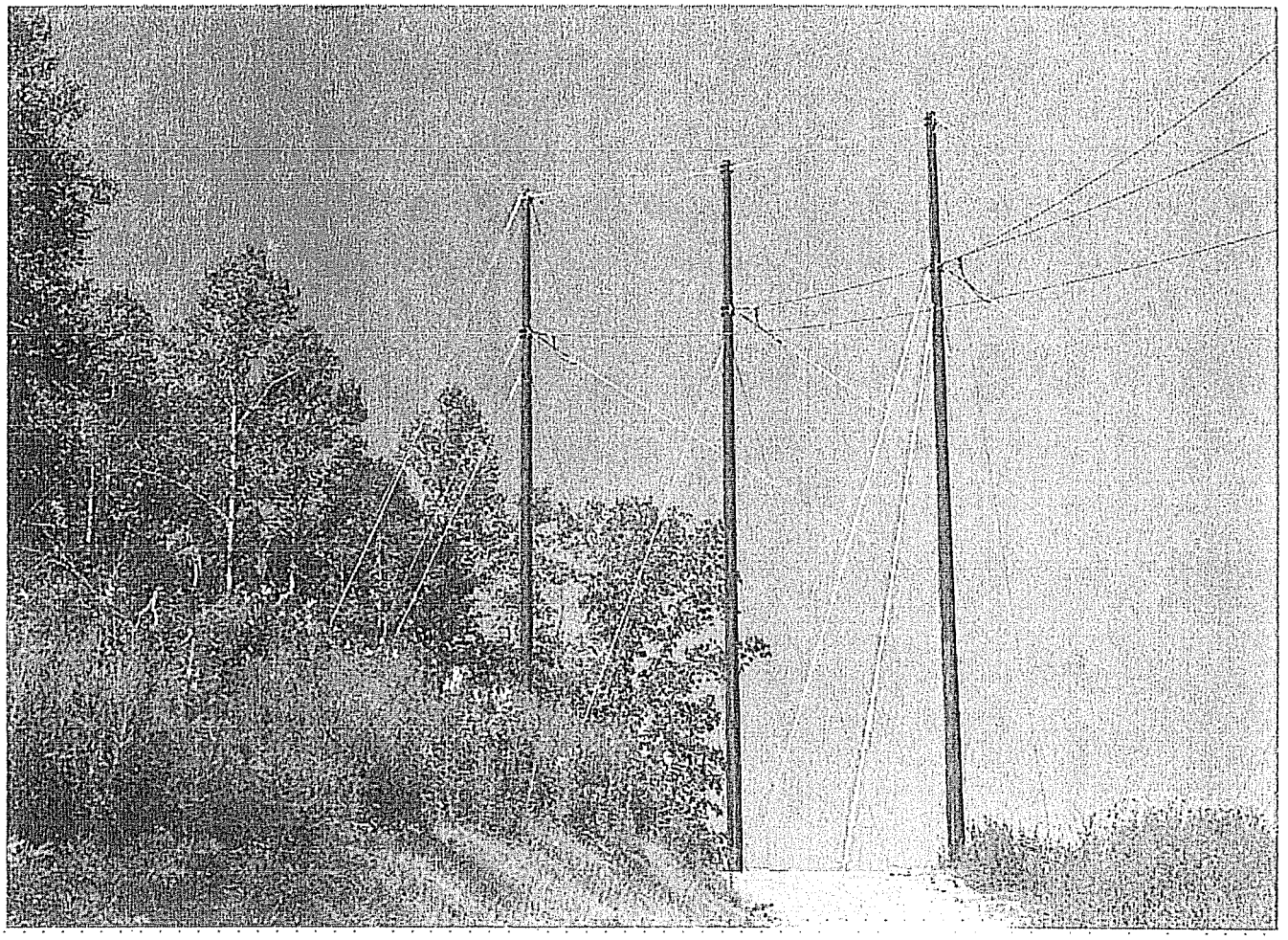


TYPICAL 3-POLE STRUCTURE



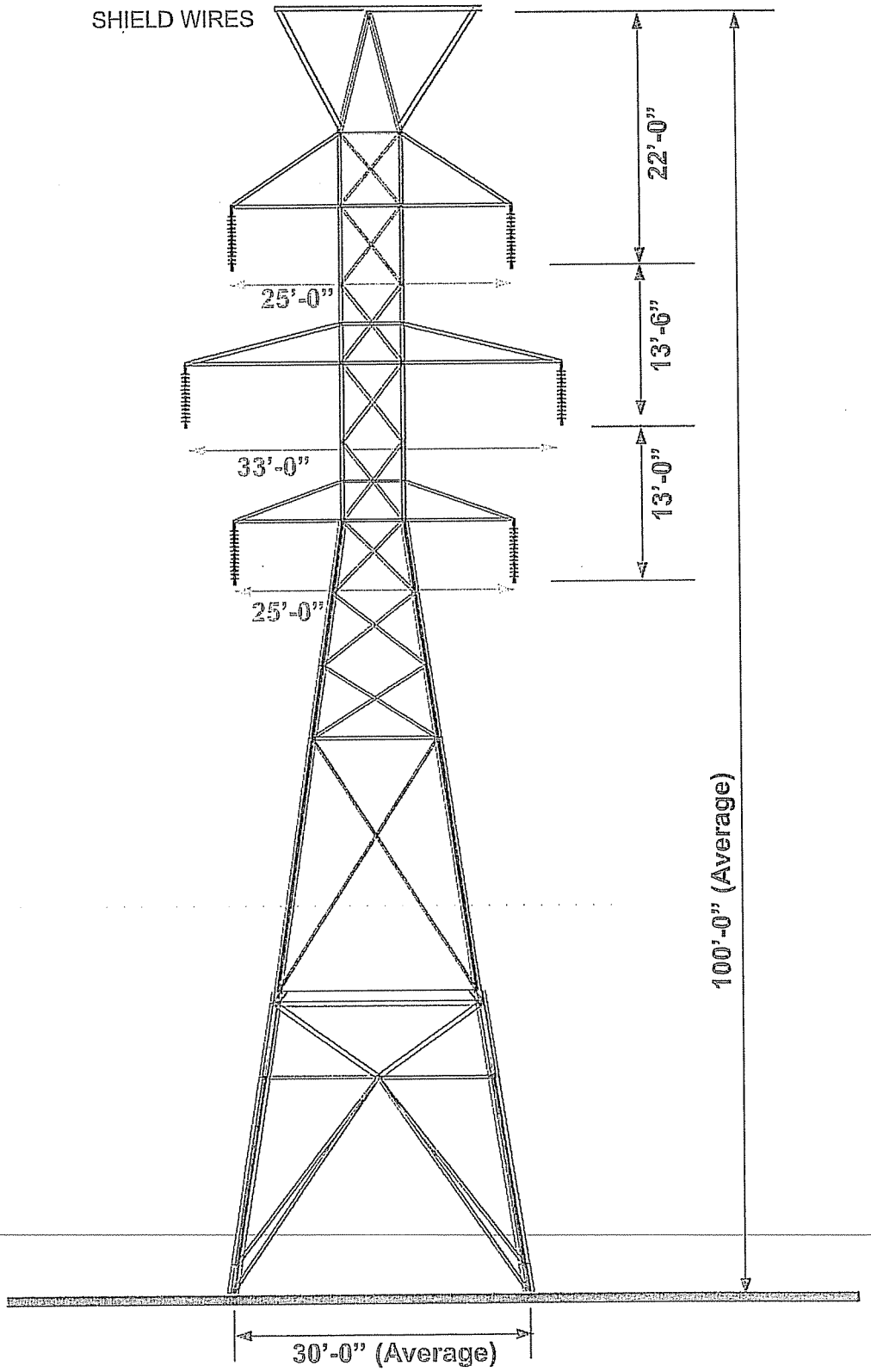
KPSC Case No. 2011-00295
Exhibit 5

TYPICAL 3-POLE DEAD-END STRUCTURE
Photograph of Comparable Existing Structure

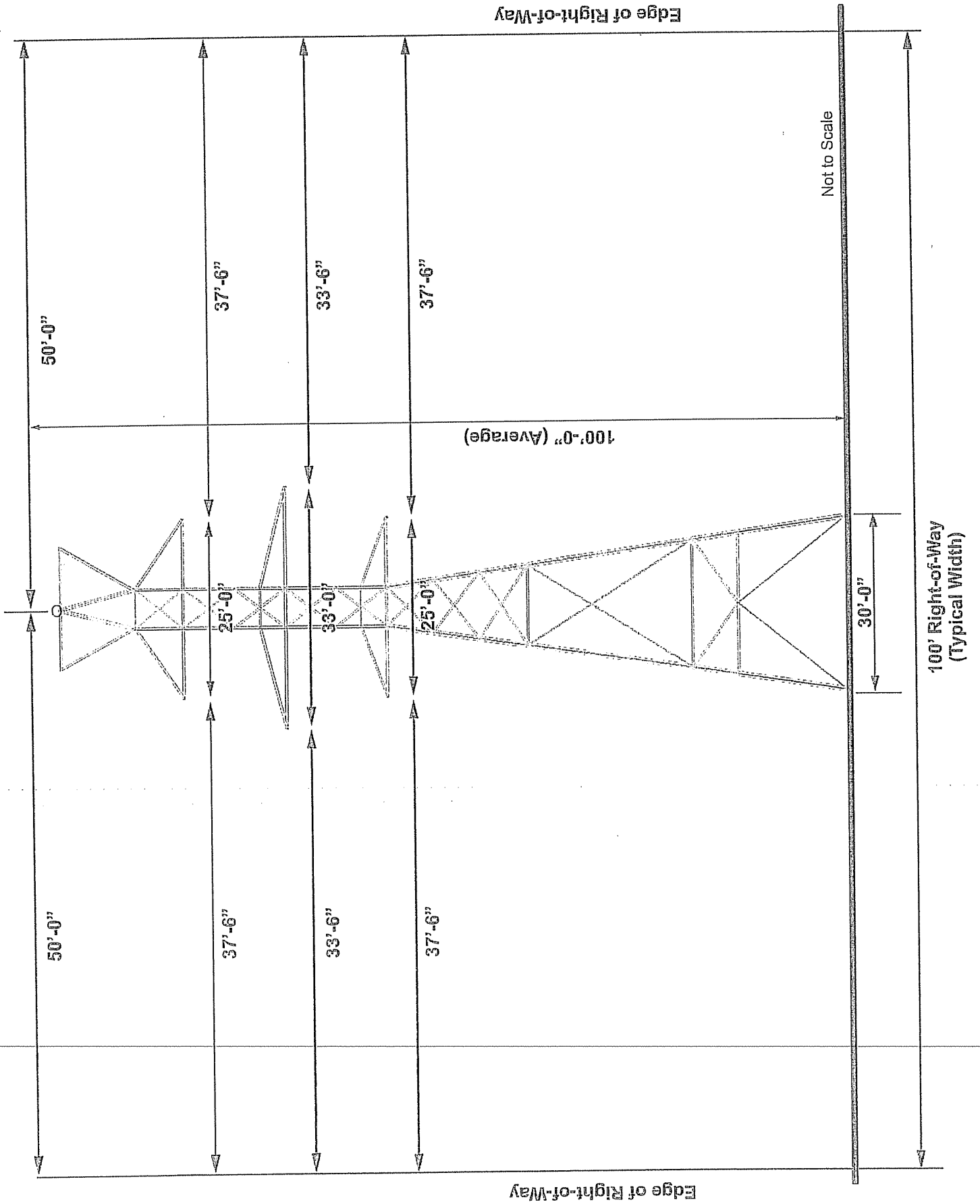


KPSC Case No. 2011-00295
Exhibit 6

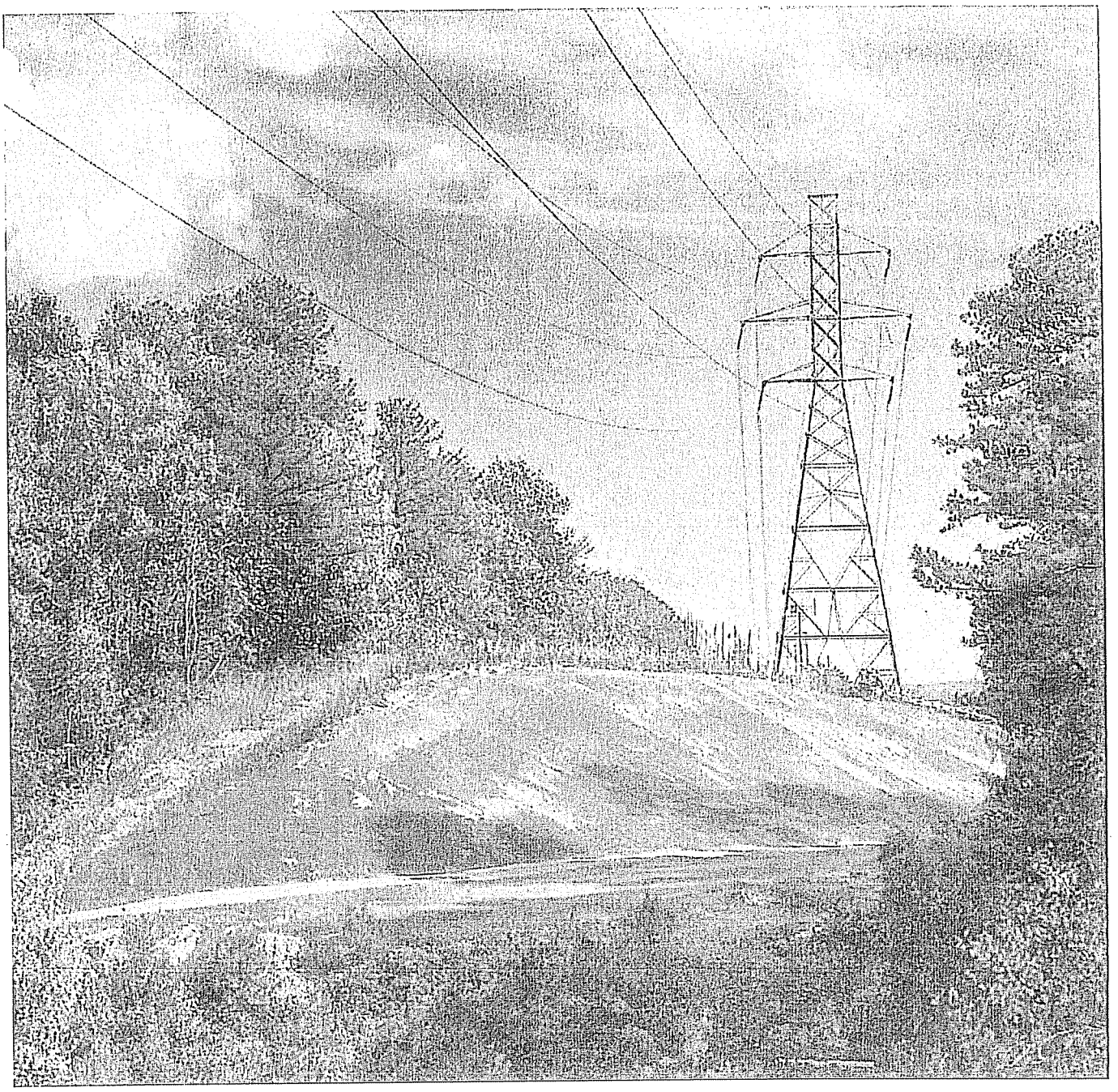
TYPICAL LATTICE STRUCTURE



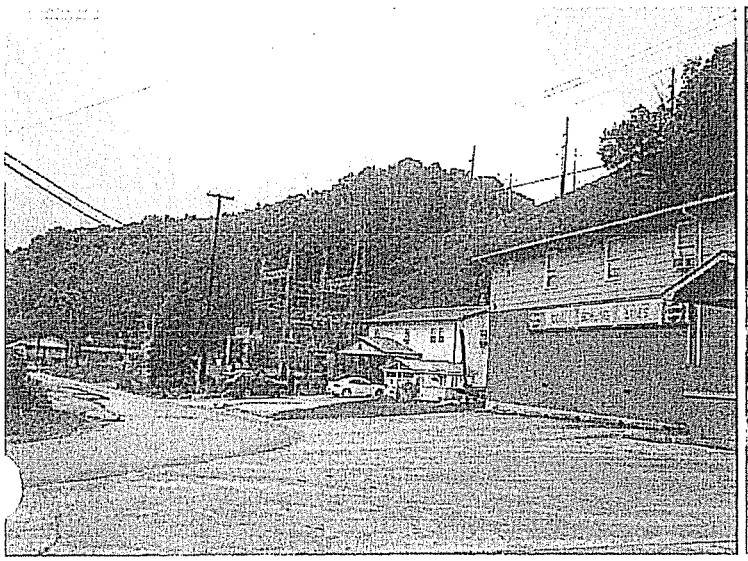
TYPICAL LATTICE STRUCTURE

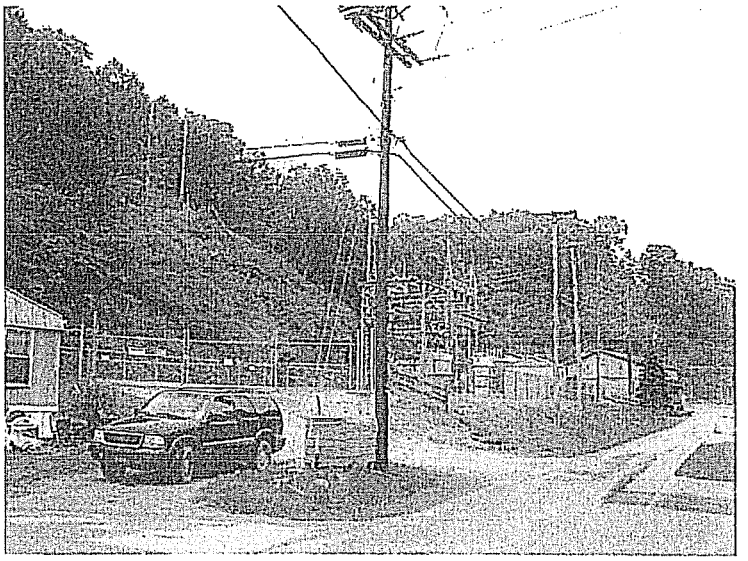


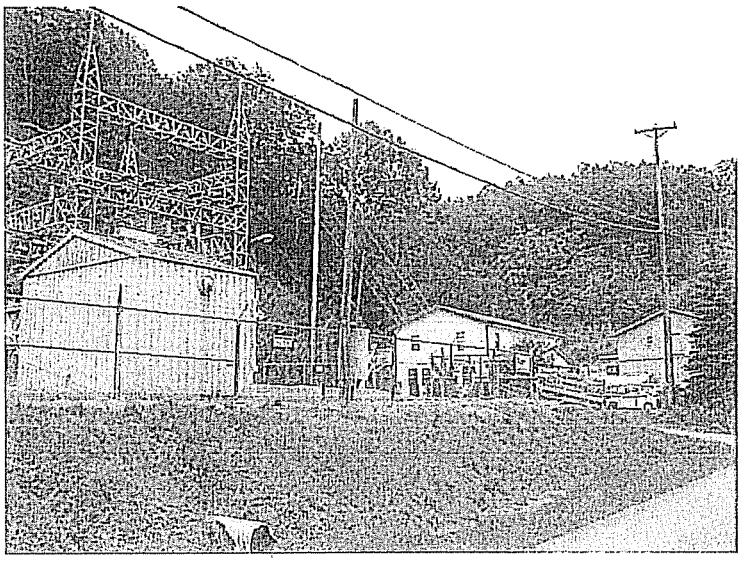
TYPICAL LATTICE STRUCTURE
Photograph of Comparable Existing Structure

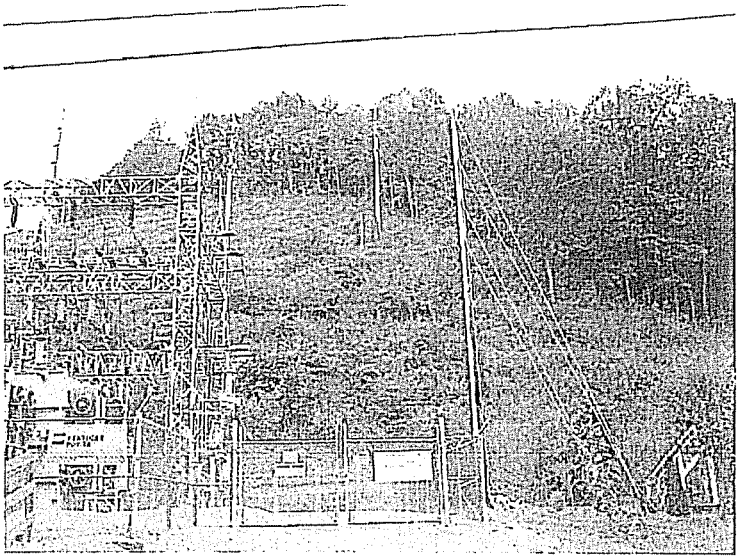


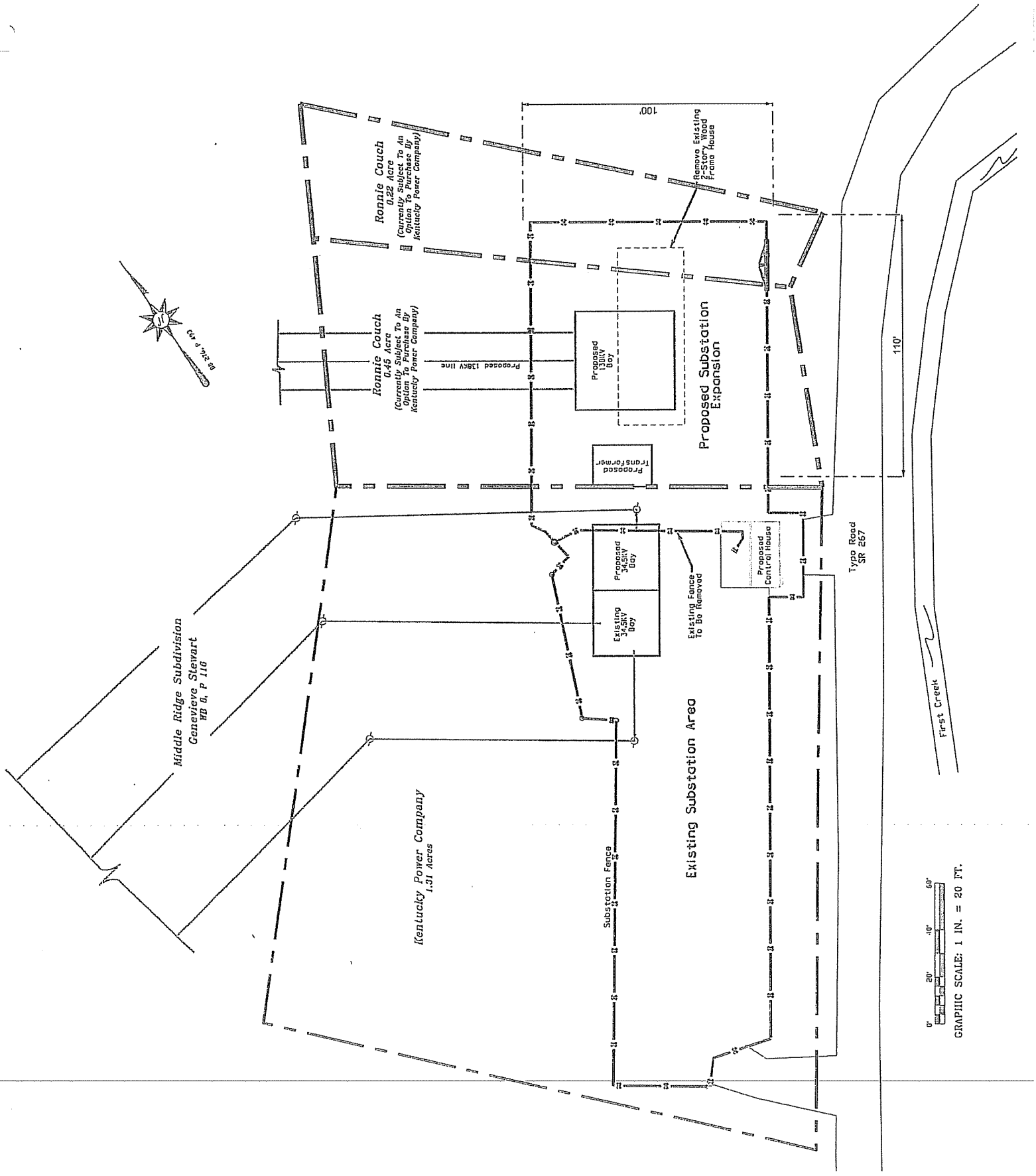
EXISTING BONNYMAN SUBSTATION PHOTOGRAPHS










Ronnie Couch
0.22 Acre
(Currently Subject To An Option To Purchase By Kentucky Power Company)
Ronnie Couch
0.45 Acre
(Currently Subject To An Option To Purchase By Kentucky Power Company)
100'
Remove Existing 2-Story Wood Frame House
Proposed 138kV line
Proposed 138kV Bay
Proposed Substation Expansion
110'
Proposed Transformer
Proposed 345kV Bay
Existing 345kV Bay
Existing Fence To Be Removed
Proposed Control House
Typo Road SR 267
First Creek
Middle Ridge Subdivision
Genevieve Stewart
WB 6, P 116
Kentucky Power Company
1.31 Acres
Substation Fence
Existing Substation Area
GRAPHIC SCALE: 1 IN. = 20 FT.
0'
20'
40'
60'

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

All landowners have been contacted and formal easement acquisition will begin October 1, 2011 when ground survey mapping and preliminary engineering is complete.

Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
074-30-02011.00 074-30-02011.1001	1	Ronnie Couch 117 Typo Road Bonnyman KY 41719	606-216-4673	Perry	Under Contract	Under Contract to Purchase
074-30-02-010.00	2	Genevieve Stewart Coal Bowling, Inc. 68 Wabacco Circle Hazard, KY 41701	606-233-9452	Perry	Signed	
Ky. Hwy. Route 15	3	Ky. Hwy. Route 15				
074-00-00-083.00	4	ACIN, LLC P.O. Box 1267 Hazard, KY 41702	606-436-3231 Paul Sebastian	Perry	Verbal	
Jimmy Darrell Way	5	Jimmy Darrell Way				
KY. Hwy. Route 276	6	Ky. Hwy. Route 276				
074-00-00-081.00	7	Hershell and Margaret Dixon P.O. Box 91 Bonnyman, KY 41719	606-439-4250	Perry	Verbal	
074-00-00-091.00	8	Linda Buckner and Vickie Buckner P.O. Box 127 Bonnyman, KY 41719	606-436-2629	Perry	Signed	
not on tax map	9	Kentucky Prince Coal Corporation P.O. Box 450 Dwarf, Ky 41739	606-434-5115 Leroy Lackey	Perry	Signed	
074-00-00-093.00	10	Edith Campbell & Balis Campbell 52 Hunter Church Rd. Hazard, KY 41701	606-436-4626	Perry	Signed	
074-00-00-096.00	11	Michael Dean Fugate, etal 162 Crawford Vally Dr. P.O. Box 499 Bonnyman, KY 41719	606-487-9117	Perry	Signed	
074-00-00-090.00	12	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-487-9117	Perry	Signed	
unknown	13	Timberlands, LLC P.O. Box 269 Hazard, KY 41702	606-439-4518	Perry	Signed	
073-00-00-097.00	14	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	
unknown	15	Timberlands, LLC P.O. Box 269 Hazard, KY 41702		Perry	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

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Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
073-00-00-097.00	16	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	
099-00-00-001.00	17	Begley Properties, LLC and B&W Resources P.O. Box 2800 London, KY 40743	Curtis Asher <casher@begleylumber.com, Mike Deaton mdeaton@begleylumber.com	Perry	Verbal	Existing Easement
099-00-00-002.00	18	Wilma Jean Miller Singleton and Steve Miller 1065 Ky Hwy 28 Hazard, KY 41701	606-439-3238	Perry	Signed	Existing Easement
Darfork Hollow	19	Darfork Hollow				
099-00-00-004.08	20	Community Trust Bank Escrow Scottie & Rebecca Stacy (foreclosure) Dept. P.O. Box 2947 Pikeville, KY 41502	606-487-2101 Will D. Fugate	Perry	Signed	Existing Easement
099-00-00-002.00	21	Wilma Jean Miller Singleton 1065 Ky Hwy 28 Hazard, KY 41701	606-439-3238	Perry	Signed	Existing Easement
099-00-00-006.00	22	Mark and Tammy D. Stacy 133 Wabaco Circle Hazard, KY 41701	606-439-1371	Perry	Signed	Existing Easement
not on tax map	23	Susan L. Stacy 181 Pine Cone Rd. Hazard, KY 41701	606-436-1996	Perry	Signed	Existing Easement
099-00-00-006.02	24	Ishmal Stacy and Marie Stacy, etal 125 Wabaco Circle Hazard, KY 41701	606-436-4918	Perry	Signed	Existing Easement
100-00-00-071.00	25	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	
KY. HWY. Route 1146	26	KY. HWY. Route 1146				
100-00-00-071.00	27	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	
115-00-00-024.01 & 115-00-00-024.02	28	Edgar Caines and Mable Caines 55 Edgar Lane Bulan, KY 41722	606-436-3767	Perry	Signed	
KY. HWY. Route 80	29	KY. HWY. Route 80				
115-00-00-017.00	30	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

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Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
115-00-00-025.00	31	Timberlands, LLC P.O. Box 269 Hazard, KY 41702	606-439-4518	Perry	Signed	
115-00-00-049.00	32	Woodson Hoskins and Dorothy Hoskins 186 Lovins Lane Bulan, KY 41722	606-435-1676	Perry	Signed	
115-00-00-050.00	33	Clyde Miller & Janice Miller 1860 Carol Dr. Piqua, OH 45356	937-778-9048	Perry	Signed	
115-00-00-044.00	34	David Lovins and Johnnie Lovins P.O. Box 4 Dwarf, KY 41739	606-378-8041	Perry	Signed	
115-00-00-034.02	35	Robin & Karen Stacy P.O. Box 121 Dwarf, Ky 41739	606-378-3271	Perry	Signed	
115-00-00-036.00	36	Bobby Ray Walker, etal P.O. Box 89 Dwarf, KY 41739	606-378-8911	Perry	Signed	
115-00-00-035.00	37	Betty Childers 9475 Synder Rd, Mason, OH 45040	513-398-3656	Perry	Verbal	
115-00-00-033.00	38	James Jones and Mable Jones 2823 N. Woodard Chicago, IL 60618	773-772-9657	Perry	Signed	
134-00-00-001.00	39	James Horn and Brenda Horn P.O. Box 443 Dwarf, KY 41739	606-378-5449	Perry	Signed	
134-00-00-009.00	40	Vernia Brewer P.O. Box 296 Dwarf, KY 41739	606-378-3401	Perry	Signed	
134-00-00-015.00	41	Bryan Messer and Mary Messer P.O. Box 3 Dwarf, KY 41739	606-378-8851	Perry	Signed	
133-00-00-075.00	42	Appalachian Enterprises LLC P.O. Box 685 Hazard, KY 41702	606-438-4608	Perry	Signed	
133-00-00-071.00	43	Leona Embry Combs 106 Memory Mt. Ln. Hazard, KY 41701	606-378-5138	Perry	Signed	
133-00-00-071.08	44	Tami Jett and Dwight Jett 64 Jett Lane Hazard, KY 41701	606-378-5176	Perry	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

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Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
133-00-00-037.02	45	Campbell Investments, LLC. 201 Mt. Shadows Dr. Hazard, KY 41701	606-436-2371 Steve Campbell	Perry	Signed	
133-00-00-015.00	46	Nancy Napier 19971 Ky Hwy 476 Hazard, KY 41701	606-436-4784	Perry	Signed	
133-00-00-032.00	47	Estill & Fern Fugate 10310 Ky Hwy 476 Hazard, KY 41701	606-378-2242	Perry	Signed	
KY HWY Route 476	48	KY HWY Route 476				
133-00-00-032.02	49	Phenoix Development Company P.O. Box 450 Dwarf, KY 41739	606-434-5115	Perry	Signed	
KY HWY Route 80	50	KY HWY Route 80				
133-00-00-027.00	51	Carlos Huff and Chandler Gayheart c/o Square Deal Motors P.O. Box 146 Hindman, KY 41822	606-785-5805	Perry	Signed	
133-00-00-004.00	52	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Perry	Signed	
133-00-00-028.00 133-00-00-029.01	53	Timberlands, LLC P.O. Box 269 Hazard, KY 41702	606-439-4518	Perry	Signed	
006-00-00-033.00	54	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Knott	Signed	
KY HWY Route 80	55	KY HWY Route 80				
006-00-00-17.00 016-00-00-001.00	56	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Knott	Signed	
Beech Creek Rd.	57	Beech Creek Rd.				
016-00-00-001.00	58	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Knott	Signed	
016-00-00-003.00	59	Sam Godsey and Pat Godsey P.O. Box 1377 Hindman, KY 41822	606-276-5899	Knott	Signed	
KY HWY Route 80	60	KY HWY Route 80				
015-00-00-048.03	61	Larry Keck and Nellie Keck 90 Dans Branch Emmalena, KY 41740	260-894-2012	Knott	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

All landowners have been contacted and formal easement acquisition will begin October 1, 2011 when ground survey mapping and preliminary engineering is complete.

Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
015-00-00-048.04	62	Burton and Ellie May Patrick, etal 54 Bluegrass Way Emmalena, KY 41740	606-785-4240	Knott	Signed	
015-00-00-050.05	63	Jon Amburgey 224 Bearville Road Emmalena, KY 41740	606-785-5140	Knott	Signed	
015-00-00-048.00	64	Samantha Anthony & Doris Shepherd P.O. Box 245 Fisty, KY 41743	606-216-1613	Knott	Signed	
015-00-00-048.01	65	Samantha Anthony and Tommy Dewayne Estep P.O. Box 245 Fisty, KY 41743	606-216-1613	Knott	Signed	
015-00-00-050.08	66	Ralph Creech 424 Log Branch Road Emmalena, KY 41740	606-785-4819	Knott	Signed	
015-00-00-050.07	67	Sammie Creech 3096 Evelyn St. Portage, IN 46368	219-762-6550	Knott	Signed	
025-00-00-005.05	68	Mountain Properties, Inc. 122 Roy Campbell Drive Hazard, KY 41701	606-487-8830	Knott	Signed	
025-00-00-039.00	69	Lloyd Richie Estate c/o Roger Richie 690 Easter Drive Carisle, OH 45005	937-746-4229	Knott	Signed	
025-00-00-40.00 025-00-00-041.00 025-00-00-071.02	70	Mountain Properties, Inc. 122 Roy Campbell Drive Hazard, KY 41701	606-487-8830	Knott	Signed	
071-00-00-001.00	70A	Daniel Gayheart P.O. Box 619 Hindman, KY 41822	606-785-5155	Knott	Signed	
025-00-00-038.01	71	Thomas C. Combs Estate c/o Doris Donseman, etal P.O. Box 21 Cave City, KY 42127	859-936-8610	Knott	Signed	
Laurel Fork Rd.	72	Laurel Fork Rd.				
025-00-00-038.01	73	Thomas C. Combs Estate c/o Doris Donseman, etal P.O. Box 21 Cave City, KY 42127	859-936-8610	Knott	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

All landowners have been contacted and formal easement acquisition will begin October 1, 2011 when ground survey mapping and preliminary engineering is complete.

Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
037-00-00-081.00	74	Daniel Gayheart P.O. Box 619 Hindman, KY 41822	606-785-5155	Knott	Signed	
037-00-00-080.00	75	Sally Rose Estate 1531 Sylvester Br. P.O. Box 44 Emmalena, KY 41740	606-785-3724	Knott	Signed	
036-00-00-043.00	76	Woodrow Bailey - Estate c/o Vivian Jo Bailey P.O. Box 358 Leburn, KY 41831	606-785-3520	Knott	Signed	
KY HWY Route 160	77	KY HWY Route 160				
036-00-00-043.00	78	Woodrow Bailey - Estate c/o Vivian Jo Bailey P.O. Box 358 Leburn, KY 41831	606-785-3520	Knott	Signed	
036-00-00-044.00	79	Lloyd & Carolyn Woods 1629 Ogden Vest Road Vest, KY 41772	606-785-3893 606-854-2037	Knott	Signed	
036-00-00-047.00	80	James Clemons & Patricia Clemons P.O. Box 73 Vest, KY 41772	606-785-5947	Knott	Signed	
Pond Branch Rd.	81	Pond Branch Rd.				
036-00-00-048.00	82	Sally Owsley Heirs c/o Catherine Walters 22719 Blank Pike Rd. Wapakoneta, OH 45895	419-568-2415	Knott	Signed	
036-00-00-028.00	83	Ida Patrick - Heirs 41 Patrick Ln. Leburn, KY 41831	606-785-5828 (Easter Banks)	Knott	Signed	
047-00-00-029.00	84	Albert Calhoun Estate Sharlene Calhoun, etal 75 Softshell Lane Leburn, KY 41831	606-785-5513	Knott	Signed	
047-00-00-010.00	85	University Of Kentucky c/o Frank A. Butler 107 Main Bldg, Lexington, KY 40506	859-257-1841	Knott	Signed	
Terry Branch Rd.	86	Terry Branch Rd.				

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

All landowners have been contacted and formal easement acquisition will begin October 1, 2011 when ground survey mapping and preliminary engineering is complete.

Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
047-00-00-010.00	87	University Of Kentucky c/o Frank A. Butler 107 Main Bldg, Lexington, KY 40506	859-257-1841	Knott	Signed	
KY. HWY. Route 80	88	KY. HWY. Route 80				
047-00-00-011.00	89	Consol of Kentucky Inc. Kentucky Fuels Corporation P.O. Box 130 Mousie, KY 41839	606-946-3100	Knott	Signed	
047-00-00-003.01	90	Kinzer Business Realty LTD. P.O. Box 460 Allen, KY 41601	606-874-8041	Knott	Signed	
047-00-00-002.00	91	George T. Combs P.O. Box 35 Mousie, KY 41839	606-946-2344	Knott	Signed	
047-00-00-003.06	92	Curtis Smith and Karla Marie Smith 4525 Possom Trot Rd. P.O. Box 631 Hindman, KY 41822	606-785-0321	Knott	Signed	
046-00-00-022.00	93	Orville Smith 173 Ky. Hwy. 1087E P.O. Box 145 Leburn, KY 41831	606-785-3346	Knott	Signed	
KY HWY Route 1087	94	KY HWY Route 1087				
046-00-00-022.00	95	Orville Smith 173 Ky. Hwy. 1087E P.O. Box 145 Leburn, KY 41831	606-785-3346	Knott	Signed	
046-00-00-027.00	96	Darrell Handshoe 202 Saint Barts Hazard, KY 41701	606-497-5418	Knott	Signed	
046-00-00-029.03	97	*Brandon Bentley* P.O. Box 182 Mousie, KY 41839	*606-785-* 4403Lula Hoffman	Knott	Signed	
046-00-00-017.10	98	Norman Thomas 4454 Ky Hwy 80E Leburn, KY 41831	606-785-4149	Knott	Signed	
046-00-00-005.06	99	David Smith 3291 Possom Trot Rd. Leburn, KY 41831	615-852-0973 606-785-9284 606-436-2321	Knott	Signed	

Easement Acquisition Status

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

All landowners have been contacted and formal easement acquisition will begin October 1, 2011 when ground survey mapping and preliminary engineering is complete.

Tax Map No.	Parcel Ref for Map	Name & Address	Phone No.	County	Survey Permission Signed	Easement Status
046-00-00-005.03	100	Jimmy Campbell and Donna Campbell 178 Raymond Smith Dr. P.O. Box 15 Hindman, KY 41822	606-785-9027	Knott	Signed	

Adjacent Landowners who were noticed

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

The following (per PVA tax roll) were noticed to ensure a landowner was not left out of the notification process. They, however, are not affected according to 2011 ground survey and an easment is not expected.

Tax Map No.	Reference Number	Name & Address	Phone No.	County	Survey Permission Signed
074-00-00-025.00	TM01	Roland Appliance & Marine, Inc. 2108 N. Main St., Hazard, KY 41701	606-436-3552	Perry	Signed
074-00-00-082.01	TM02	Rosa Lee Sharpe 2548 Valley Pike Dayton, OH 45404	1-937-235-9686	Perry	Verbal
086-00-00-001.00	TM03	Dale Ridge Development, LLC P.O. Box 110 Bonnyman, KY 41719	606-487-9117	Perry	Signed
085-00-00-006.03	TM04	Roy Campbell and Michael Ison P.O. Box 1841 Hazard, KY 41702	606-438-4221	Perry	Signed
099-00-00-004.03	TM05	Bobby Combs P.O. Bx 553 Bulan, KY 41722	n/a not been able to locate	Perry	
099-00-00-004.13	TM06	Daniel & Misty Miller P.O. Box 2350 Hazard, KY 41702		Perry	
099-00-00-005.00	TM07	Combs Family Cemetery c/Ishmal Stacy P.O. Box 308 Hazard, KY 41702	606-436-4918	Perry	Signed
099-00-00-004.03 099-00-00-04.17 099-00-00-004.13	TM08	Kenneth & Anita Arrowood P.O. Box 1854 Hazard, KY 41701	606-435-1976 606-438-2444	Perry	Signed
099-00-00-006.00	TM09	Jimmy Stacy and Mary Ann Stacy P.O. Box 1012 Hazard, KY 41702	606-439-1371	Perry	Signed
115-00-00-024.03	TM10	David Justice Caines 41 Edgars Lane Bulan, Ky 41722		Perry	
115-00-00-025.00	TM11	Mid State Homes II 1500 North Dale Mabry Hwy P.O. Box 33601 Tampa FL 33602		Perry	
115-00-00-026.00	TM12	~~Appalachian Enterprises, LLC c/o~~ Ky River Properties LLC P.O. Box 269 Hazard Ky	606-439-4518	Perry	Signed

Adjacent Landowners who were noticed

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

The following (per PVA tax roll) were noticed to ensure a landowner was not left out of the notification process. They, however, are not affected according to 2011 ground survey and an easment is not expected.

Tax Map No.	Reference Number	Name & Address	Phone No.	County	Survey Permission Signed
115-00-00-026.00	TM13	Appalachian Enterprises, LLC c/o Ky River Properties LLC P.O. Box 269 Hazard Ky	606-439-4518	Perry	Signed
115-00-00-034.00	TM14	Thelma Stacy P.O. Box 121 Dwarf, KY 41739	606-378-3271	Perry	Signed
133-00-00-037.04	TM15	Campbell Investments, LLC. 201 Mt. Shadows Dr. Hazard, KY 41701	606-437-2371	Perry	Signed
115-00-00-042.00	TM16	Gladys Marie Stidham 46 Stacy Fork Lane Bulan, KY 41722	606-378-5346	Perry	Signed
115-00-00-042.01	TM17	Oakie Lovins, Sr & Brenda Lovins 8 Stacy Fork Lane Bulan, KY 41722	606-378-8711	Perry	Signed
133-00-00-071.06	TM18	Lonnie Bryant c/o Lereta, LLC 1123 South Parkview Drive Covina, VA 91724		Perry	
133-00-00-071.01	TM19	Michael Davis and Lisa Davis P.O. Box 78 Ary, KY 41712	606-378-3961	Perry	Signed
133-00-00-037.03	TM20	Kermit Hall P.O. Box 187 Dwarf, Ky 41739		Perry	Signed
133-00-00-033.00	TM21	Sophia Shephard P.O. Box 1402 Hazard, KY 41702	66-438-6376	Perry	Signed
006-00-00-017.00	TM22	Robert L. Holiday 153 Trace Br Rd Fisty KY 41743		Knott	
006-00-00-033.00	TM23	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Knott	Signed
016-00-00-001.00	TM24	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	606-439-4518	Knott	Signed

Adjacent Landowners who were noticed

Bonnyman - Soft Shell 138 kV Project

As of 9/21/2011

The following (per PVA tax roll) were noticed to ensure a landowner was not left out of the notification process. They, however, are not affected according to 2011 ground survey and an easment is not expected.

Tax Map No.	Reference Number	Name & Address	Phone No.	County	Survey Permission Signed
016-00-00-003.00	TM25	Bearville Market Sam & Pat Godsey P.O. Box 1377 Hindman, KY 41822	606-276-5899	Knott	Signed
015-00-00-050.04	TM26	Christine Gayheart 5823 McCasland Avenue Portage, Indiana 46368	219-762-4526	Knott	Signed
026-00-00-071.02	TM27	Daniel Gayheart P.O. Box 619 Hindman, KY 41822	606-785-5155	Knott	Signed
026-00-00-071.00	TM28	ICG N Resources, LLC. 300 Corporate Center Dr. Scott Depot, WV 25560	606-889-8236 Mitch Bentley	Knott	Verbal
036-00-00-052.00	TM29	Daniel Gayheart P.O. Box 619 Hindman, KY 41822	606-785-5155	Knott	Signed
037-00-00-080.00	TM30	Sally Rose Estate 1531 Sylvester Br. P.O. Box 44 Emmalena, KY 41740	606-785-5155	Knott	Signed
047-00-00-003.01	TM31	Michael Ousley 40 Faith Drive Leburn, KY 41831	606-785-0096	Knott	Signed
047-00-00-12.00	TM32	Thurman Bud Gayheart HC 75 Box 109 Softshell Ky 41853		Knott	
046-00-00-021.02	TM33	Rondell Conley 199 Shilch Dr. Leburn, KY 41831	606-497-5418	Knott	Signed
046-00-00-005.05	TM34	Keith Smith 4773 Ky Hwy 80E Softshell, KY 41831	606-785-5159	Knott	Signed

Mineral Owners

Bonnyman - Soft Shell 138 kV Project
As of 9/21/2011

Reference Number	MINERALS OWNERS (Coal and Gas) and LESSEES	Status
MO-001	Kentucky River Properties, LLC 250 West Main Suite 1823 Lexington, KY 40507	
MO-002	Kinzer Business Realty LTD. P.O. Box 460 Allen, KY 41601	
MO-003	M.D. & E. P. Hill, LLC c/o Sallye Hill Stumbo 1022 Aderly Lane Frankfort, KY 40601	
MO-004	Woodrow Preston 1026 Celia Lane Lexington Ky 40504	
MO-005	WPP LLC 1035 Third Avenue, Suite 300 Cabell County, WV 25701	
MO-006	Methodist Hospital of Kentucky n/k/a Pikeville Medical Center 911 South ByPass Rd. Pikeville, KY 41501	
MO-007	KYCOAGA Company, LLC L. D. Gorman, Registered Agent 480 Main Street Hazard, Ky 41701	
MO-008	Pilgram Energy, Inc, etal P.O. Box 89 Pikeville, KY 41501	
MO-009	EQT Headquarters 625 Liberty Avenue Suite 1700 Pittsburg, PA 15222	
MO-010	Kentucky Fuel Corporation P.O. 130 Mousie, KY 41839	
MO-011	Alpha Natural Resources 300 Corporate Center Dr. Scott Depot, WV 25560	
MO-012	Essar Minerals North America, Inc. Frasure Creek Mining, LLC 930 Allen-Banner Road Allen, Ky 41601	

Verification of Mailing

I, Lila P. Munsey being first duly sworn, state that on September 15, 2011 I caused the information required by 807 KAR 5:120, Section 1 (3) to be mailed to each property owner, as indicated by the records of the Breathitt, Knott and Perry Counties Property Valuation Administrator, whose property the proposed transmission line will cross.

Lila P. Munsey

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF FRANKLIN)

The foregoing instrument was subscribed and sworn to before me on this 15th day of September, 2011, by Lila P. Munsey.

My commission expires: January 23, 2013

NOTARY PUBLIC

KENTUCKY POWER®
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

Ronnie Couch
117 Typo Rd
Bonnyman, KY 41719

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

Dear Mr. Couch,

Kentucky Power Company (KPCo) proposes to construct a 138 kV electric transmission line approximately 20 miles in length connecting KPCo's existing 69 kV Bonnyman Substation located in Perry County, Kentucky and KPCo's existing 138 kV Soft Shell Substation located in Knott County, Kentucky. KPCo also proposes to expand its existing Bonnyman Substation in Perry County, Kentucky (including the installation of a new 138kV/69kV transformer), to install capacitor banks at KPCo's existing Haddix Substation in Breathitt County, Kentucky and Beckham Substation in Knott County, Kentucky, and to perform related work at KPCo's Soft Shell Substation in Knott County, Kentucky. The line is planned to cross property in which you have an interest according to the records of the Perry County Property Valuation Administrator.

On or about September 29, 2011, Kentucky Power intends to file an application with the Public Service Commission of Kentucky seeking authority to build the line and associated facilities. After it is filed, the project application can be reviewed at the Knott County Library or the Perry County Library, and will also be available for review on-line at the Kentucky Power website: www.kentuckypower.com/go/bonnyman. Pursuant to 807 KAR 5:120, Section 2(3), Kentucky Power is providing the following information regarding the proposed new transmission line and the Commission proceeding:

(a) The Commission proceeding has been assigned Case No. 2011-00295;

(b) The address and phone number of the Executive Director of the Public Service Commission is:

Jeff R. Derouen
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

(c) You have the right to request a local public hearing in your county by sending a written request to the Executive Director of the Commission at the address above. The local public hearing must be requested no later than 30 days after Kentucky Power files its application with the Commission. The requirements for the written request are set forth in 807 KAR 5:120, Section 3(2) and 807 KAR 5:120, Section 3(3).

You also have the right to request leave to intervene as a party in the proceeding in which the Commission will consider Kentucky Power's application seeking authority to build the line. Intervention in Commission proceedings is governed by 807 KAR 5:001, Section 3(8).

The regulations governing your right to seek a public hearing and your right to request leave to intervene may be found at http://www.lrc.state.ky.us/kar/title807.htm

(d) Approximately 20 miles of 138 kV transmission line will be constructed using lattice steel towers, steel pole H-frame structures, or 3-pole structures. The average height of the structures will be approximately 100 feet. The structures will support three 1,590 kcm ACSR conductors and two overhead groundwires, including one fiber optic overhead groundwire, which will be used for relaying communications between stations.

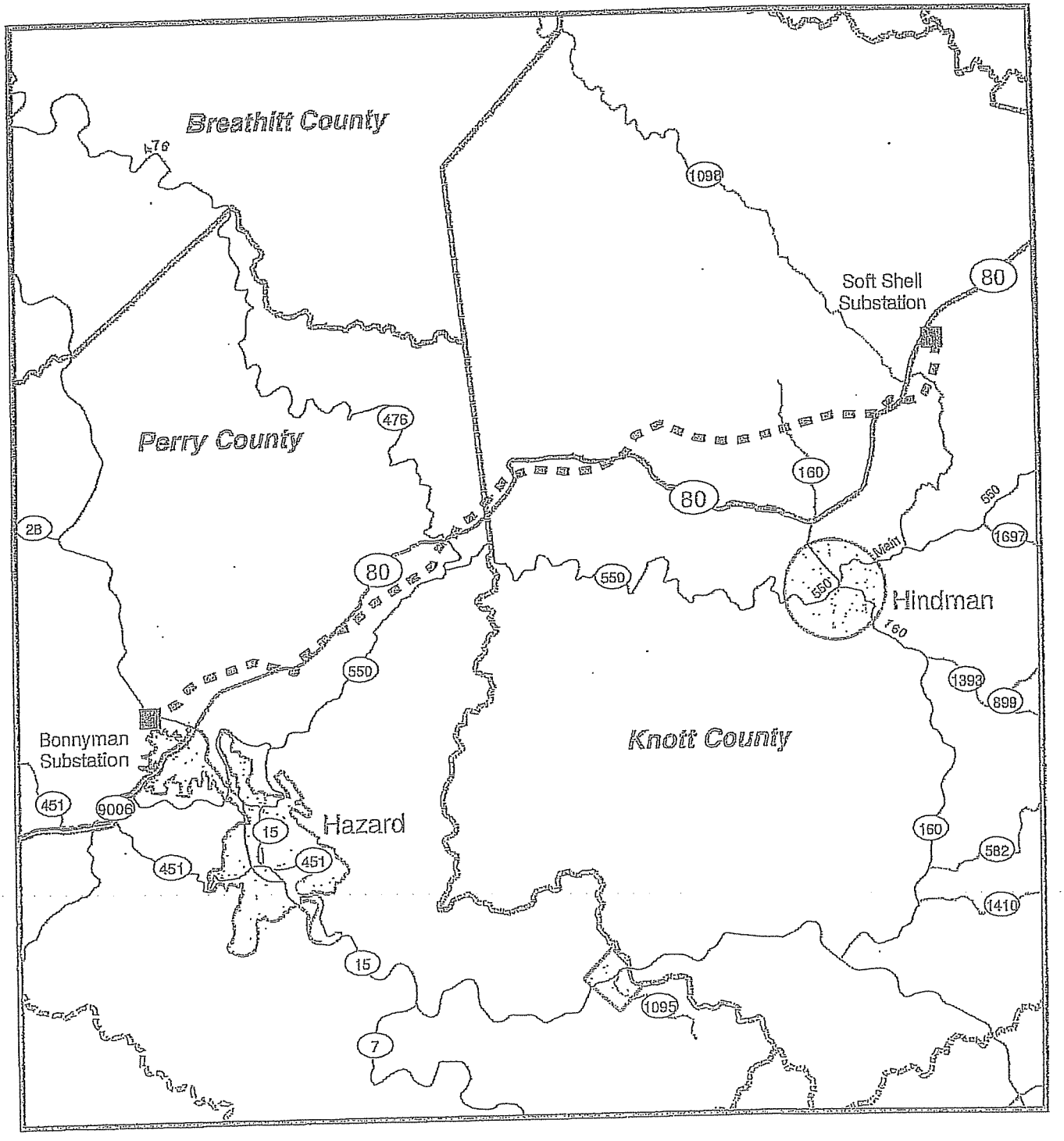
(e) A map showing the proposed route of the line is enclosed.

Please do not hesitate to contact me at (502) 696-7010 if you have any questions.

Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

KENTUCKY POWER®
A unit of American Electric Power

N

Legend

Preferred Route

KENTUCKY POWER
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

Sally Rose Estate
1531 Sylvester Br.
Emmalena, KY 41740

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

Dear Sally Rose Estate,

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On or about September 29, 2011, Kentucky Power intends to file an application with the Public Service Commission of Kentucky seeking authority to build the line and associated facilities. After it is filed, the project application can be reviewed at the Knott County Library or the Perry County Library, and will also be available for review on-line at the Kentucky Power website: www.kentuckypower.com/go/bonnyman. Pursuant to 807 KAR 5:120, Section 2(3), Kentucky Power is providing the following information regarding the proposed new transmission line and the Commission proceeding:

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Executive Director
Public Service Commission of Kentucky
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P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

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(d) Approximately 20 miles of 138 kV transmission line will be constructed using lattice steel towers, steel pole H-frame structures, or 3-pole structures. The average height of the structures will be approximately 100 feet. The structures will support three 1,590 kcm ACSR conductors and two overhead groundwires, including one fiber optic overhead groundwire, which will be used for relaying communications between stations.

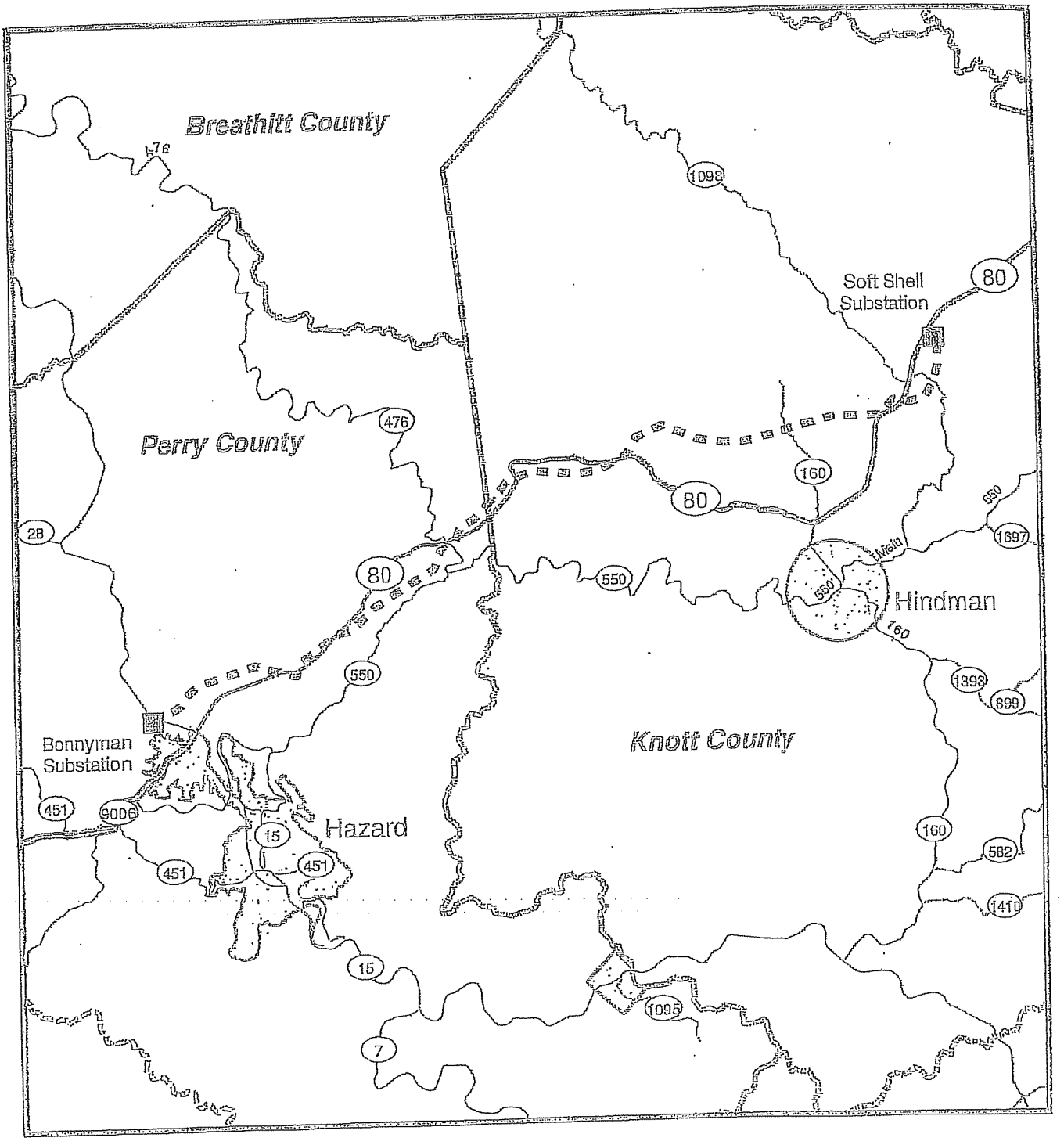
(e) A map showing the proposed route of the line is enclosed.

Please do not hesitate to contact me at (502) 696-7010 if you have any questions.

Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

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Legend

Preferred Route

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101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

Rosa Lee Sharpe
2548 Valley Pike
Dayton, OH 45404

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

Dear Rosa Lee Sharpe,

Kentucky Power Company (KPCo) proposes to construct a 138 kV electric transmission line approximately 20 miles in length connecting KPCo's existing 69 kV Bonnyman Substation located in Perry County, Kentucky and KPCo's existing 138 kV Soft Shell Substation located in Knott County, Kentucky. KPCo also proposes to expand its existing Bonnyman Substation in Perry County, Kentucky (including the installation of a new 138kV/69kV transformer), to install capacitor banks at KPCo's existing Haddix Substation in Breathitt County, Kentucky and Beckham Substation in Knott County, Kentucky, and to perform related work at KPCo's Soft Shell Substation in Knott County, Kentucky. The line may cross property in which you have an interest according to the records of the Perry County Property Valuation Administrator.

On or about September 29, 2011, Kentucky Power intends to file an application with the Public Service Commission of Kentucky seeking authority to build the line and associated facilities. After it is filed, the project application can be reviewed at the Knott County Library or the Perry County Library, and will also be available for review on-line at the Kentucky Power website: www.kentuckypower.com/go/bonnyman. Pursuant to 807 KAR 5:120, Section 2(3), Kentucky Power is providing the following information regarding the proposed new transmission line and the Commission proceeding:

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Jeff R. Derouen
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

(c) You have the right to request a local public hearing in your county by sending a written request to the Executive Director of the Commission at the address above. The local public hearing must be requested no later than 30 days after Kentucky Power files its application with the Commission. The requirements for the written request are set forth in 807 KAR 5:120, Section 3(2) and 807 KAR 5:120, Section 3(3).

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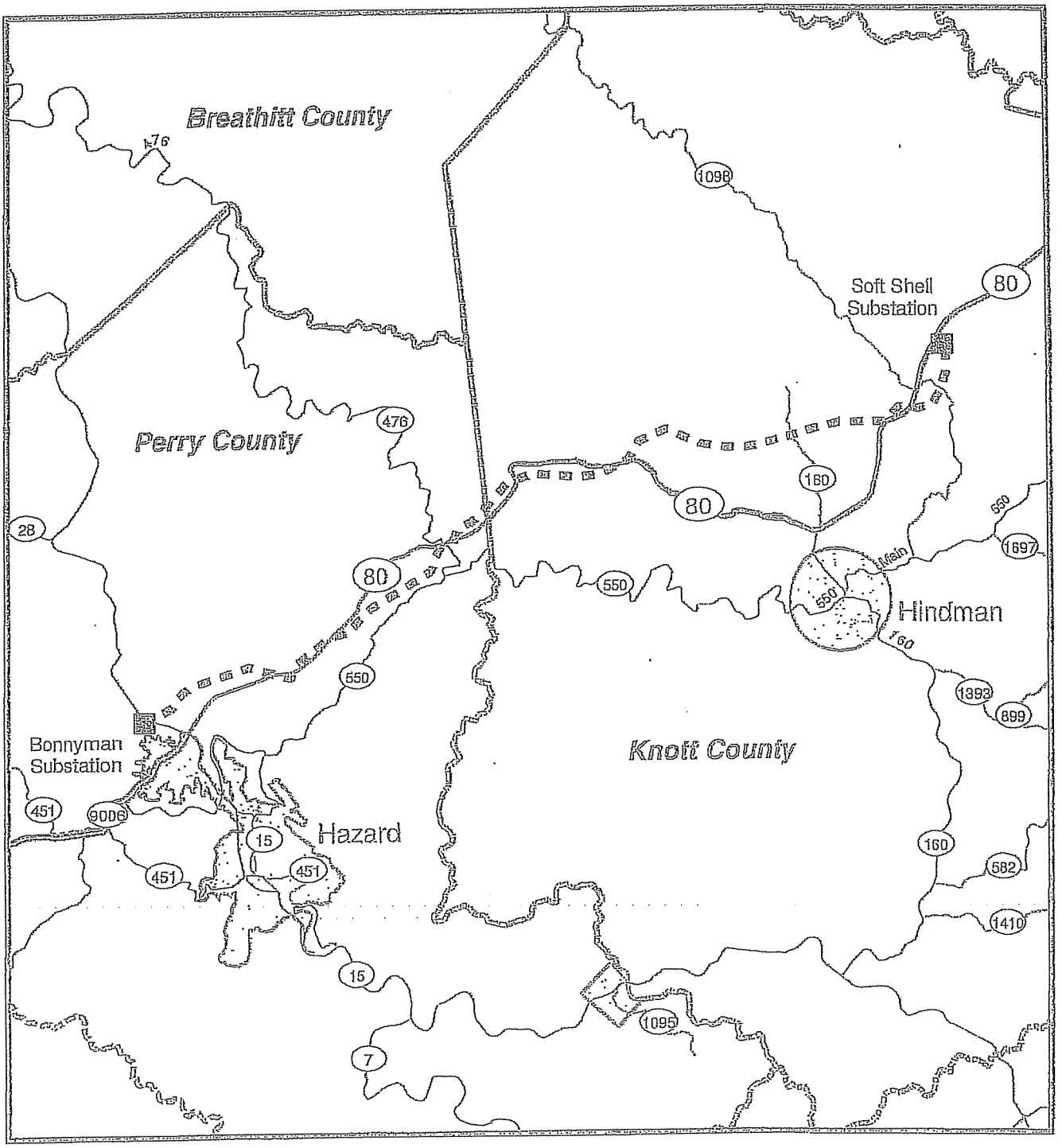
(e) A map showing the proposed route of the line is enclosed.

Please do not hesitate to contact me at (502) 696-7010 if you have any questions.

Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

AEP KENTUCKY POWER®
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N

Legend

▫ ▫ ▫ Preferred Route

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A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

ICG N Resources, LLC
300 Corporate Center Dr.
Scott Depot, WV 25560

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

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Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

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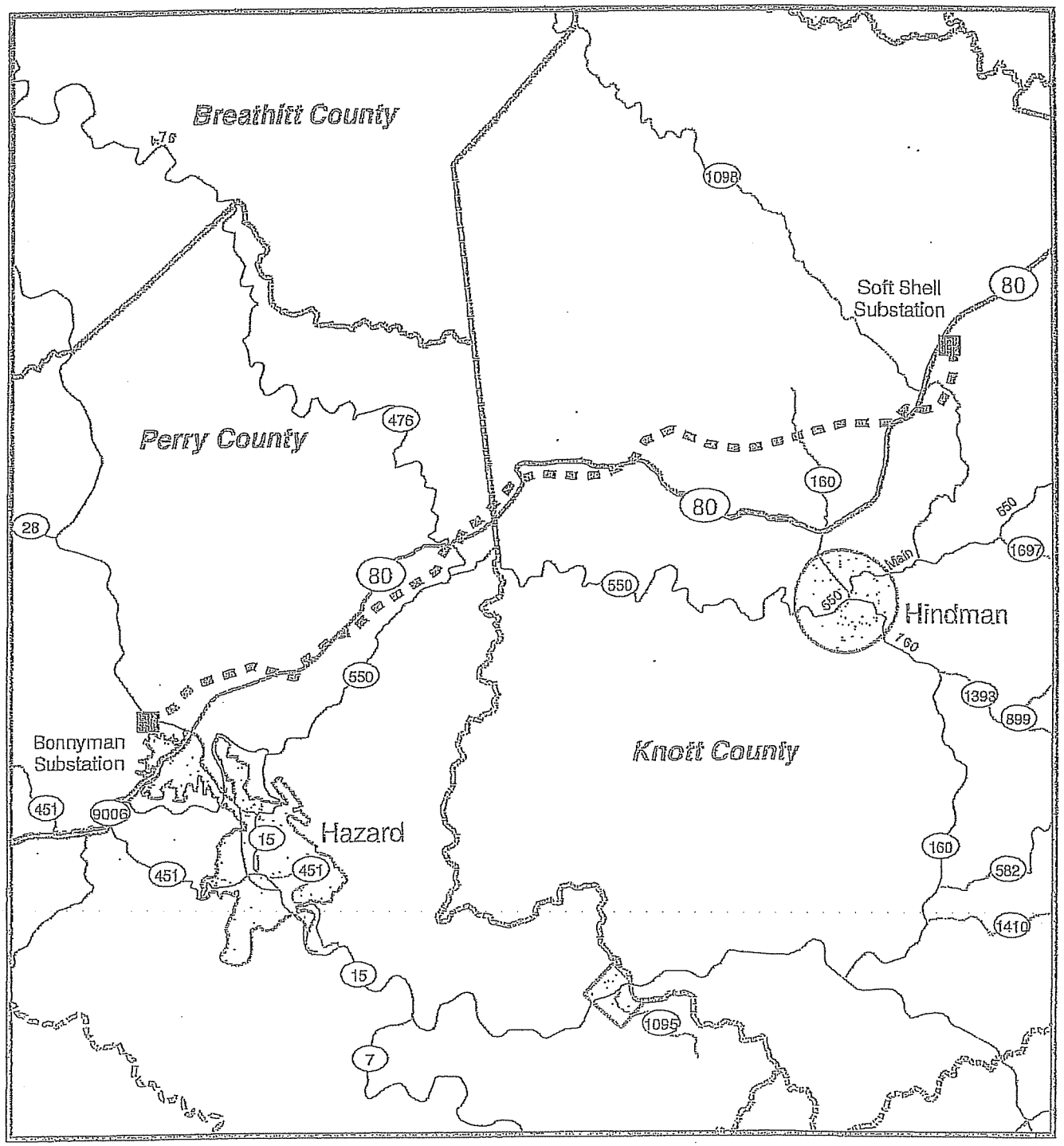
Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

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N

Legend

Preferred Route

KENTUCKY POWER®
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

Kinzer Business Realty LTD
PO Box 460
Allen, KY 41601

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

Dear Sir or Madam,

Kentucky Power Company (KPCo) proposes to construct a 138 kV electric transmission line approximately 20 miles in length connecting KPCo's existing 69 kV Bonnyman Substation located in Perry County, Kentucky and KPCo's existing 138 kV Soft Shell Substation located in Knott County, Kentucky. KPCo also proposes to expand its existing Bonnyman Substation in Perry County, Kentucky (including the installation of a new 138kV/69kV transformer), to install capacitor banks at KPCo's existing Haddix Substation in Breathitt County, Kentucky and Beckham Substation in Knott County, Kentucky, and to perform related work at KPCo's Soft Shell Substation in Knott County, Kentucky. The line is planned to cross property in which you have mineral rights according to the title records.

On or about September 29, 2011, Kentucky Power intends to file an application with the Public Service Commission of Kentucky seeking authority to build the line and associated facilities. After it is filed, the project application can be reviewed at the Knott County Library or the Perry County Library, and will also be available for review on-line at the Kentucky Power website: www.kentuckypower.com/go/bonnyman. Pursuant to 807 KAR 5:120, Section 2(3), Kentucky Power is providing the following information regarding the proposed new transmission line and the Commission proceeding:

(a) The Commission proceeding has been assigned Case No. 2011-00295;

(b) The address and phone number of the Executive Director of the Public Service Commission is:

Jeff R. Derouen
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

(c) You have the right to request a local public hearing in your county by sending a written request to the Executive Director of the Commission at the address above. The local public hearing must be requested no later than 30 days after Kentucky Power files its application with the Commission. The requirements for the written request are set forth in 807 KAR 5:120, Section 3(2) and 807 KAR 5:120, Section 3(3).

You also have the right to request leave to intervene as a party in the proceeding in which the Commission will consider Kentucky Power's application seeking authority to build the line. Intervention in Commission proceedings is governed by 807 KAR 5:001, Section 3(8).

The regulations governing your right to seek a public hearing and your right to request leave to intervene may be found at http://www.lrc.state.ky.us/kar/title807.htm

(d) Approximately 20 miles of 138 kV transmission line will be constructed using lattice steel towers, steel pole H-frame structures, or 3-pole structures. The average height of the structures will be approximately 100 feet. The structures will support three 1,590 kcm ACSR conductors and two overhead groundwires, including one fiber optic overhead groundwire, which will be used for relaying communications between stations.

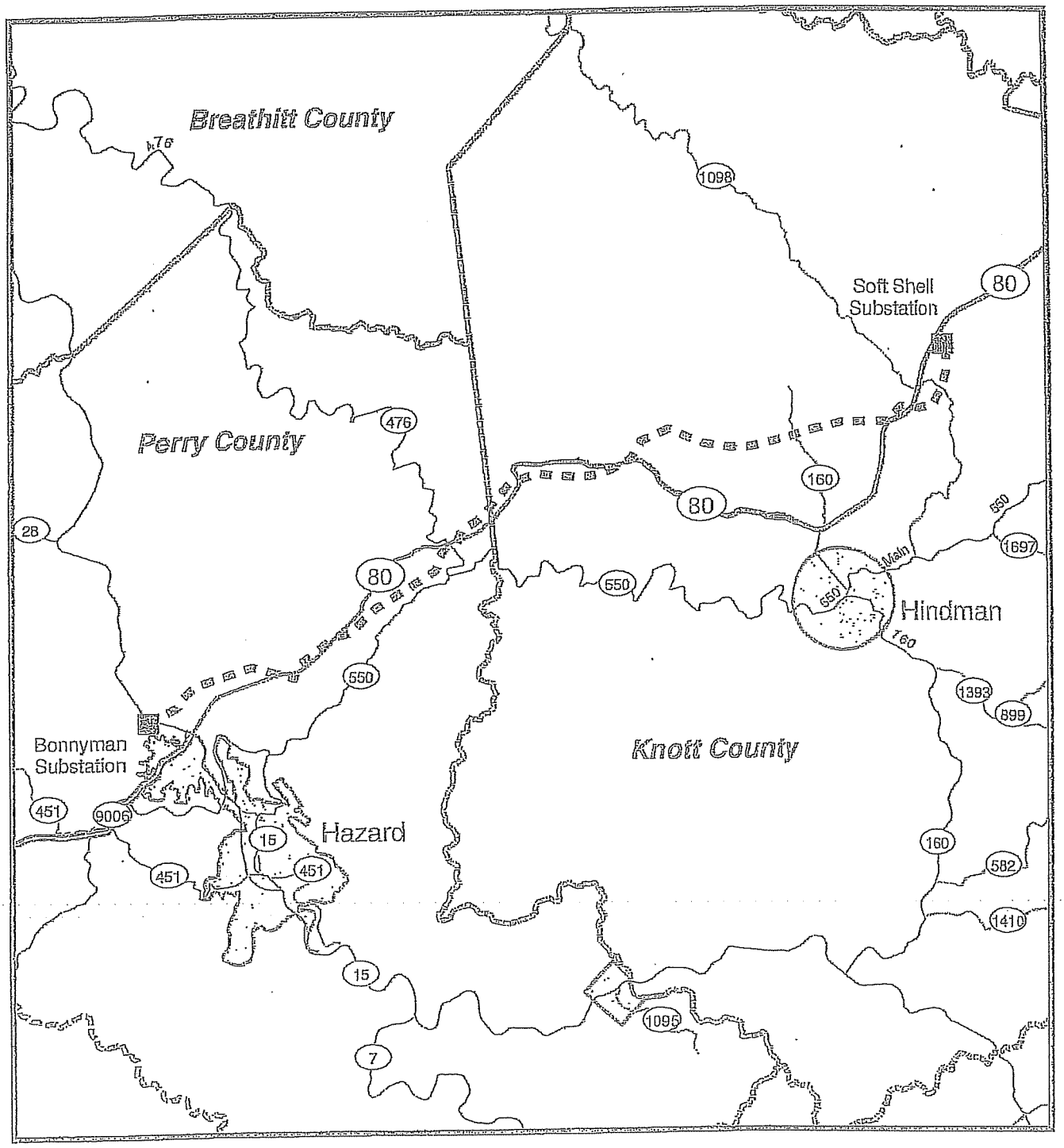
(e) A map showing the proposed route of the line is enclosed.

Please do not hesitate to contact me at (502) 696-7010 if you have any questions.

Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

KENTUCKY POWER®
A unit of American Electric Power

N

Legend

Preferred Route

KENTUCKY POWER®
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 15, 2011

Woodrow Preston
1026 Celia Lane
Lexington, KY 40501

Re: **Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line And Associated Facilities In Breathitt, Knott And Perry Counties, Kentucky (Bonnyman-Soft Shell Line) – P.S.C. Case No. 2011-00295**

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(a) The Commission proceeding has been assigned Case No. 2011-00295;

(b) The address and phone number of the Executive Director of the Public Service Commission is:

Jeff R. Derouen
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211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

(c) You have the right to request a local public hearing in your county by sending a written request to the Executive Director of the Commission at the address above. The local public hearing must be requested no later than 30 days after Kentucky Power files its application with the Commission. The requirements for the written request are set forth in 807 KAR 5:120, Section 3(2) and 807 KAR 5:120, Section 3(3).

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The regulations governing your right to seek a public hearing and your right to request leave to intervene may be found at http://www.lrc.state.ky.us/kar/title807.htm

(d) Approximately 20 miles of 138 kV transmission line will be constructed using lattice steel towers, steel pole H-frame structures, or 3-pole structures. The average height of the structures will be approximately 100 feet. The structures will support three 1,590 kcm ACSR conductors and two overhead groundwires, including one fiber optic overhead groundwire, which will be used for relaying communications between stations.

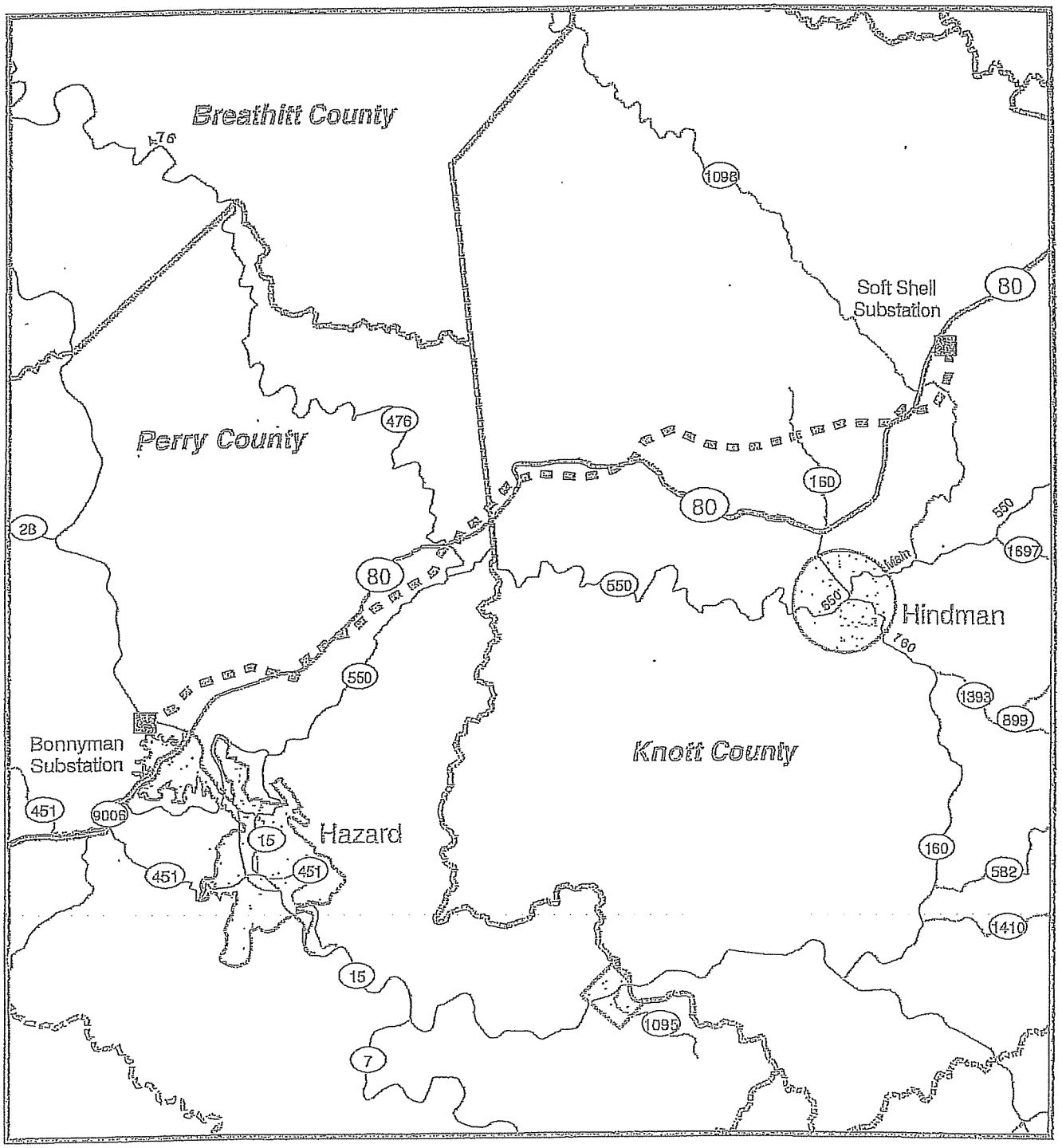
(e) A map showing the proposed route of the line is enclosed.

Please do not hesitate to contact me at (502) 696-7010 if you have any questions.

Sincerely,

Lila P. Munsey

Lila P. Munsey
Manager, Regulatory Services



Bonnyman - Soft Shell 138kV Transmission Line

KENTUCKY POWER®
A unit of American Electric Power

N

Legend

Preferred Route

AEP
KENTUCKY POWER®
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

September 12, 2011

KENTUCKY PRESS ASSOCIATION

ATTN: Rachael McCarty

FAX 502-875-2624

Dear Ms. McCarty:

As you requested, we are faxing information to be published in the Classified Section under "Legal Notices" in The Jackson Times 1003 College Avenue Jackson, KY 41339, Hazard Herald-Voice P.O. Box 869 Hazard, KY 41702 and Troublesome Creek Times P.O. Box 700 Hindman, KY 41822 newspapers in the Kentucky Power service area.

We are requesting the notice and map appear the week of September 19, thru September 23, 2011.

A copy of the final ad after it is reset should be "faxed" to the below address for our approval.

As we discussed, immediately following publication, your office will prepare a notarized affidavit and forward it along with the tear sheet to the address below.

The invoice for any costs associated with the service should be mailed to the address below.

Judy K. Rosquist
Kentucky Power Company
Regulatory Services
P.O. Box 5190
Frankfort, KY 40602

If you have any questions, please call Judy at 502-696-7011.

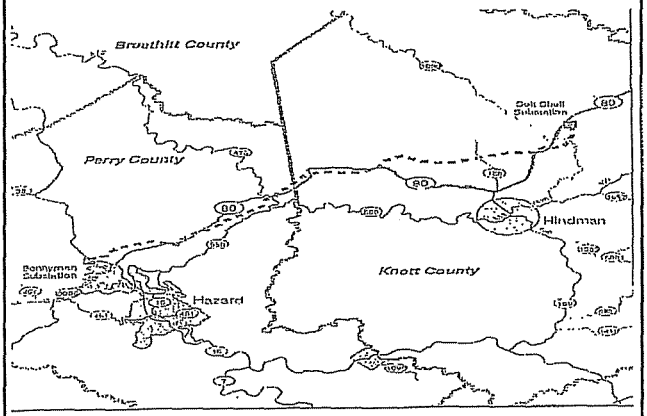
Thank you,

Lila P. Munsey
Manager Regulatory Services

PUBLIC NOTICE

Kentucky Power Company (KPCo) gives notice that it proposes to file with the Public Service Commission of Kentucky an application seeking a Certificate of Public Convenience and Necessity authorizing it to construct in Knott and Perry counties in Kentucky a 138 kV electric transmission line approximately 20 miles in length. The proposed line will connect KPCo's existing 69 kV Bonnyman Substation, located in Perry County, KY and KPCo's existing 138 kV Soft Shell Substation located in Knott County, KY. In addition the application seeks authority to construct associated facilities. The associated facilities will include an expansion of the existing Bonnyman Substation (including the installation of a new 138kV/69kV transformer) in Perry County, KY, and the installation of capacitor banks at the existing Haddix Substation, in Breathitt County, KY and Beckham Substation in Knott County, KY. The proceeding has been assigned Case No. 2011-00295. After it is filed, the project application can be reviewed at the Knott County Library or the Perry County Library and will also be available for review on-line at the Kentucky Power website: www.kentuckypower.com/go/bonnyman. A map showing the proposed route of the line is displayed below.

Interested parties have a right to intervene in these proceedings and to request a local public hearing. Should you have any questions concerning this case, please contact Mr. Jeff R. Derouen, Executive Director of the Kentucky Public Service Commission, P.O. Box 615, 211 Sower Boulevard, Frankfort, KY 40602-0615, or call 502/564-3940. Questions concerning the project may also be directed to Lila P. Munsey, Manager of Regulatory Services, Kentucky Power Company, 101A Enterprise Dr., P.O. Box 5190, Frankfort, KY 40602-5190, or call 502/696-7010.



Hazard Area
Improvement Plan
Capital Planning Proposal TP-2009-210

KENTUCKY POWER®

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Hazard Area Improvement Plan
Capital Planning Proposal TP-2009-210

Overview

This proposal recommends a comprehensive 138 kV transmission system improvement plan for implementation in AEP's Hazard, Kentucky area. Once implemented, the plan will alleviate thermal overloads, low voltages concerns, and improve transmission service reliability to the Hazard Area. This proposal recommends establishing a new 138 kV source from Beaver Creek Station via Soft Shell Station to the Hazard area. A new twenty (20) mile line will be constructed from Soft Shell Station to Bonnyman Station to establish a second 138 kV source into the Hazard transmission system. This construction, along with other station and line work as outlined in this proposal, is estimated to cost $62.5 million. These facilities are proposed to be in service by December 2014.

Hazard Area Description

The Hazard System Transmission Area consists of the transmission and sub-transmission facilities that provide service in portions of Kentucky Power's service area within the six following counties: Breathitt, Knott, Leslie, Letcher, Morgan and Perry. The Hazard System Transmission Area lies within the blue circle indicated in Figure1 below. The principal Kentucky Power source into the area is the Beaver Creek-Hazard 138 kV line. In addition, there are 161 kV interconnections with the Tennessee Valley Authority and Kentucky Utilities Company. The area load on the Hazard Area Transmission System is approximately 300 MW.

The Hazard Area Transmission System contains a 69 kV sub-transmission loop that includes the Blue Grass, Combs, Bonnyman, Shamrock, Engle, Bulan, and Hazard Stations. In addition to this sub-transmission loop there is a 69 kV loop located south of the Hazard Station. The load consists largely of residential load, with some commercial and industrial customers. The industrial load comprises mainly small coal mines. The commercial load is concentrated around the cities of Hazard (Perry County) and Jackson (Breathitt County).

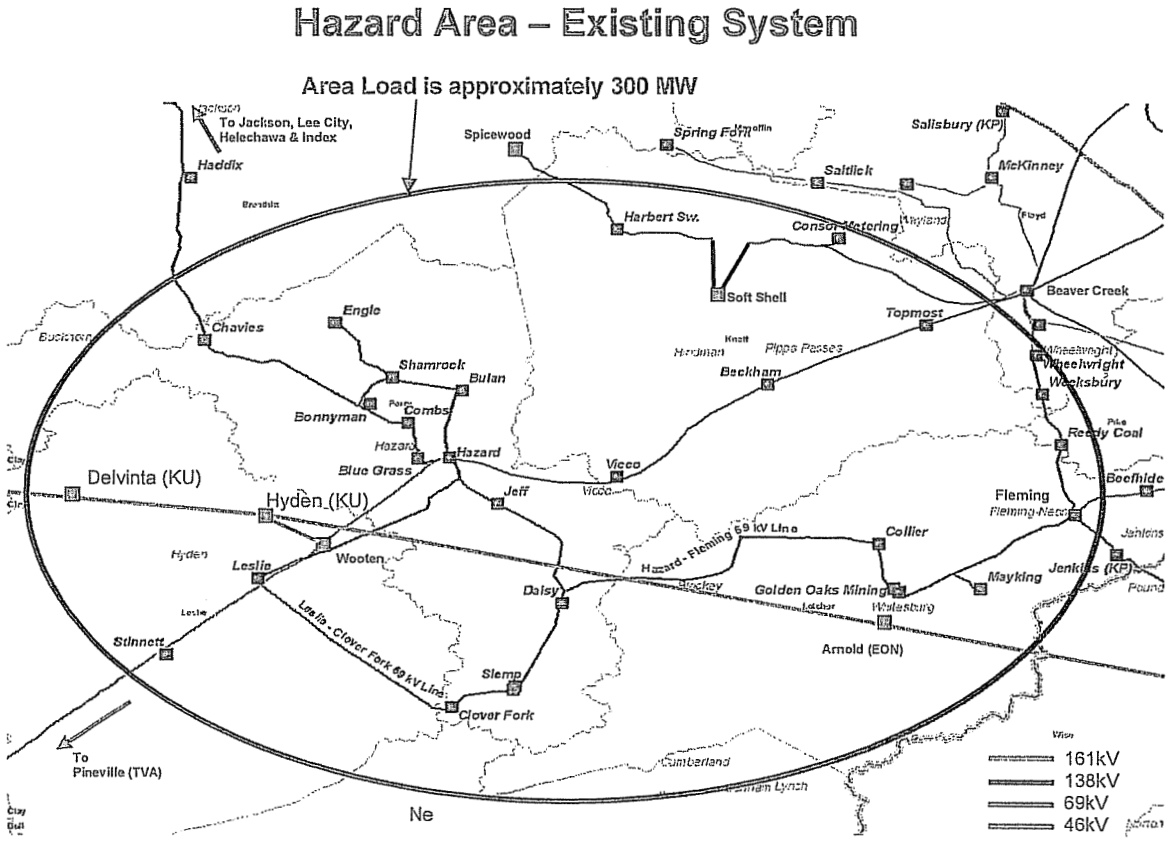


Figure1: Existing System Map

Existing Transmission System and Load

The loading in the Hazard Area outlined in Figure1 is approximately 300MW. The peak load is most likely to occur during the winter months as this area of Kentucky Power is winter peaking. The principal sources into this area include AEP's Beaver Creek– Hazard 138kV line, a 161 kV interconnection with the Tennessee Valley Authority (TVA), and a 161kV interconnection with Kentucky Utilities Company (KU).

The majority of the Hazard Area load is served from the aforementioned interconnections with neighboring utilities; KU supplies approximately 134 MW to the Hazard area, and TVA supplies approximately 98 MW into the area. Conversely, AEP's Beaver Creek Station serves approximately 73 MW to the Hazard area. The area has been affected by low voltage conditions and 69kV thermal loading conditions due to

single contingency outages in the Bonnyman-Hazard 69kV loop. The voltage at the end of the long 69kV line from Bonnyman to Jackson is significantly affected by contingencies on the Bonnyman-Hazard 69 kV sub transmission loop. Furthermore, PJM (PJM), the regional transmission organization, has identified a potential thermal overload on the Hazard-Topmost 138kV line with outages on the Wooten-Hyden and Pineville-Stinnett 161kV sources (double contingency). The single 138kV source from Beaver Creek is not sufficient enough to provide adequate service in the event of a double contingency of the TVA and KU interconnection lines.

Transmission System Performance before Improvements

The existing 138kV and 69kV systems are not adequate for single contingency and bulk electric system (BES) outages. Specific issues are noted below:

System normal voltage levels – Load flow studies for the 2008 winter case indicate peak load voltage levels on the Jackson – Hazard 69kV line could be as low as 88% of nominal for single contingency outages. The Transmission Planning guideline for single contingency outages specifies a minimum voltage of 92% of nominal.

System Performance during contingency conditions – Based on expected 2013 and 2018 winter load conditions, various single-contingency outages will cause problems including severe overloads and voltage depressions affecting the Hazard (approximately 300MW) area load.

BES Violations - PJM has identified a thermal overload on the Hazard-Topmost 138 kV line with the outage of Wooten-Hyden 161 kV and Stinnett-Pineville 161 kV (double contingency).

Proposed Improvements

This proposal recommends establishing a second 138kV source into the Hazard region. This would alleviate 69kV single contingency voltage and thermal issues. It would also address the 138kV thermal overload on the 138kV system and significantly improve the overall Hazard 69kV system reliability. The 138kV line would be constructed from Soft Shell Station to Bonnyman Station. Constructing the line to Bonnyman Station would require the installation of a 138kV/ 69kV, 130MVA transformer at Bonnyman Station in addition to related work at the Haddix, Soft Shell and Beckham Stations. The total estimated cost of the project would be $62.5 million. The proposed improvements would have a target in-service date of December 30, 2014.

Figure 2: Sample Thermal Profiles for Single Contingency Outages: Existing Hazard System 2008/09 Winter Base Case

Line Outage->	Haz1 - Bulan	Bulan - Sham	Sham - Bonny	Bonny - Combs	Combs - BG	BG - Haz2
	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading
Line Monitored						
Hazard 1-Bulan	NA	13%	35%	86%	98%	116%
Bulan-Shamrock	15%	NA	23%	72%	83%	101%
Shamrock-Bonnyman	38%	23%	NA	48%	58%	76%
Bonnyman-Combs	83%	70%	47%	NA	17%	31%
Combs-Bluegrass	93%	78%	55%	16%	NA	16%
BG-Haz2	107%	92%	68%	26%	13%	NA
Haz TRF #1	24%	31%	47%	35%	101%	117%

RED = Planning Criteria Thermal Violation (>100% of system normal)
BLUE = Potential Area of Concern (>90% Thermal Line Loading)
NA = Not Applicable
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 3: Sample Voltage Profiles for Single Contingency Outages: Existing Hazard System 2008/09 Winter Base Case

Line Outage->	Haz 1- Bulan	Bulan - Sham	Sham - Bonny	Bonny - Combs	Combs - BG	BG – Haz 2
	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit
Station Monitored						
Jackson	0.86	0.88	0.92	0.81	0.81	0.77
Haddix	0.86	0.89	0.90	0.82	0.82	0.78
Chavies	0.89	0.91	0.89	0.84	0.84	0.80

BLUE = Planning Criteria Voltage Violation (<92% of system normal)
Haz 1 = Hazard #1 Transformer
Haz 2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 4: Sample Thermal Profiles for Single Contingency Outages: Existing Hazard System 2008/09 Winter Base Case with Lee City Tie Closed (Ref TP-2009-059)

Line Outage->	Haz1 - Bulan	Bulan - Sham	Sham - Bonny	Bonny - Combs	Combs - BG	BG - Haz2
Line Monitored	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading
Hazard 1-Bulan	NA	13%	35%	71%	79%	110%
Bulan-Shamrock	14%	NA	22%	58%	65%	91%
Shamrock-Bonnyman	37%	22%	NA	35%	42%	56%
Bonnyman-Combs	73%	59%	39%	NA	16%	28%
Combs-Bluegrass	81%	67%	47%	16%	NA	15%
G-Haz2	94%	80%	59%	25%	13%	NA
Haz TRF #1	55%	31%	47%	76%	85%	100%

RED = Planning Criteria Thermal Violation (>100% of system normal)
BLUE = Potential Area of Concern (>90% Thermal Line Loading)
NA = Not Applicable
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 5: Sample Voltage Profiles for Single Contingency Outages: Existing Hazard System 2008/09 Winter Base Case with Lee City Tie Closed (Ref TP-2009-059)

Line Outage->	Haz 1- Bulan	Bulan - Sham	Sham - Bonny	Bonny - Combs	Combs - BG	BG – Haz 2
Station Monitored	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit
Jackson	0.90	0.91	0.94	0.89	0.89	0.86
Haddix	0.91	0.92	0.94	0.88	0.88	0.86
Chavies	0.93	0.94	0.96	0.90	0.90	0.87

BLUE = Planning Criteria Voltage Violation (<92% of system normal)
Haz 1 = Hazard #1 Transformer
Haz 2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 6: Sample Thermal Profiles for Double Contingency Outage: Existing Hazard System Winter Base Case with Stinnett - Pineville (TVA) 161kV and Wooten-Hyden (EON) 161kV Lines Out

Facility Monitored	Thermal Loading (%)
Beavercreek-Topmost 138 kV	130%

Benefits of Proposed Improvements

Completion of the project as recommended will:

1) Alleviate thermal overload and low voltage problems during normal single-contingency and double contingency outage conditions.

2) Provide flexibility for scheduled maintenance of critical transmission facilities without interrupting service to customers.

3) The new 138 kV line would provide a second source in addition to AEP's Beaver Creek – Topmost 138 kV line. Currently, principal sources into the area are as follows:

   - 138kV line from Beaver Creek – Hazard Stations
   - 161kV interconnections with KU at Wooten Station
   - 161kV interconnection with TVA at Stinnett Station

4) A calculated line loss savings of approximately 3.0 MW.

Figure 7: Diagram After Improvements

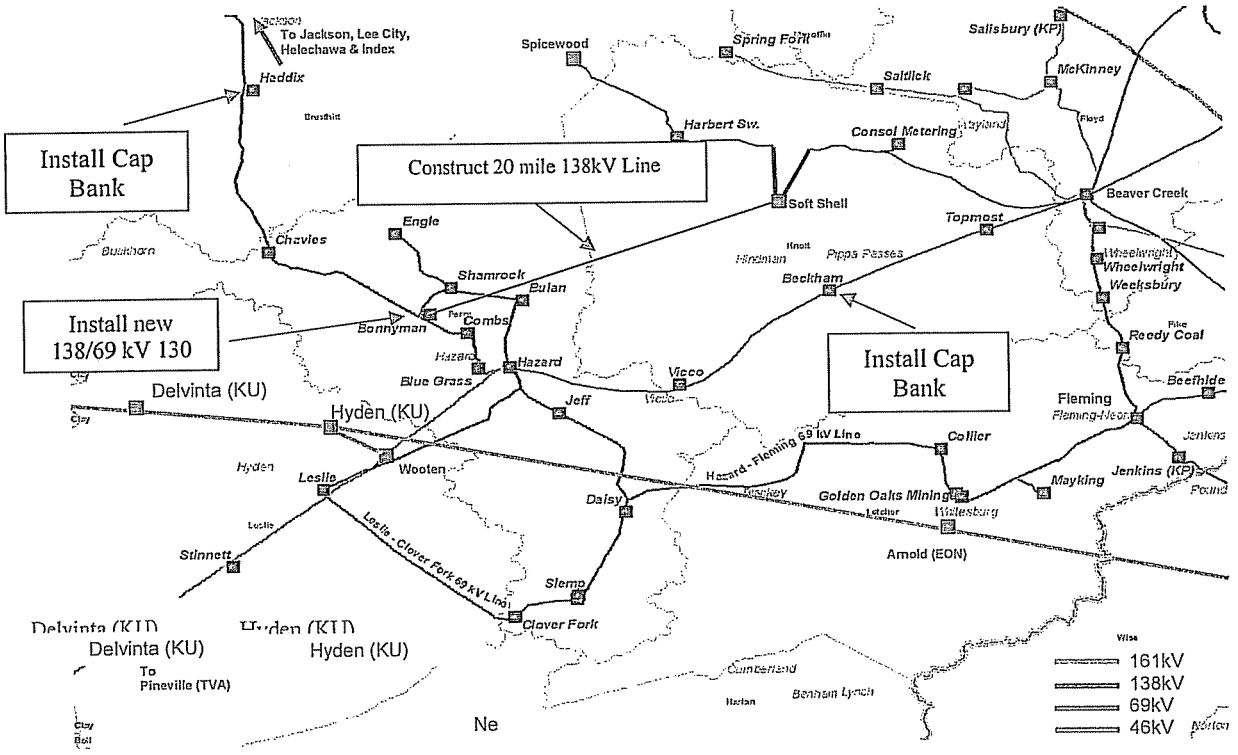


Figure 8: Station One-Line Soft Shell 138kV

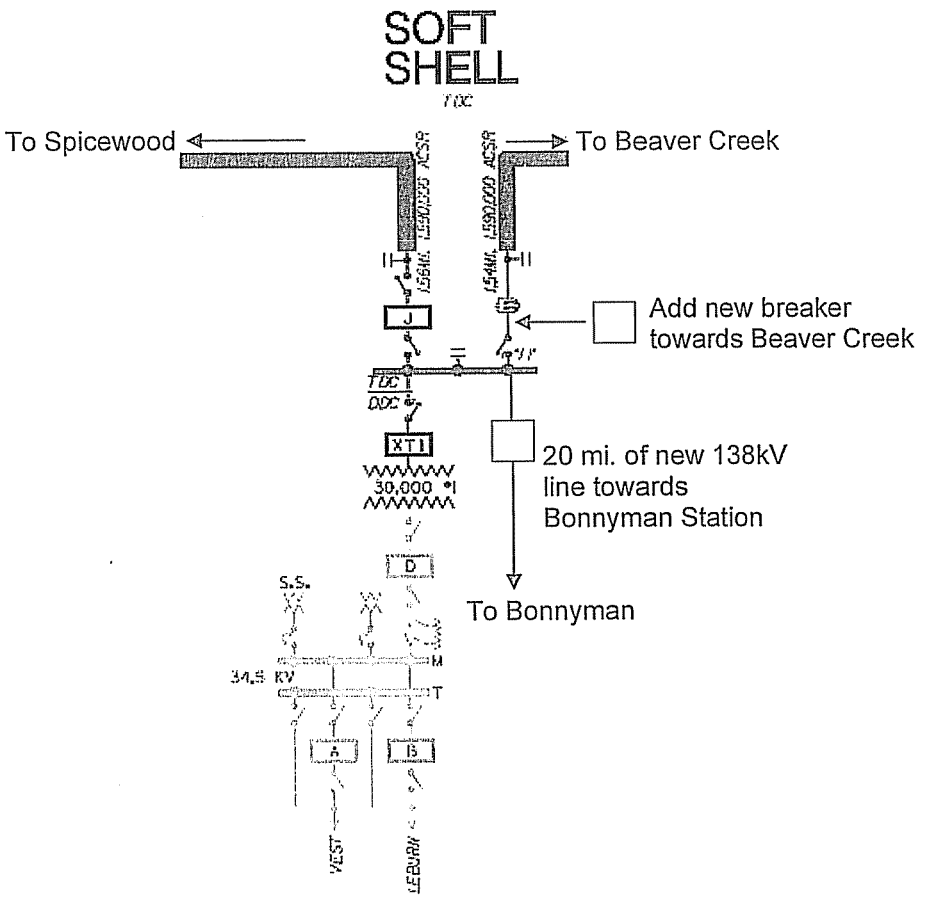


Figure 9: Station One-Line: Bonnyman 138kV

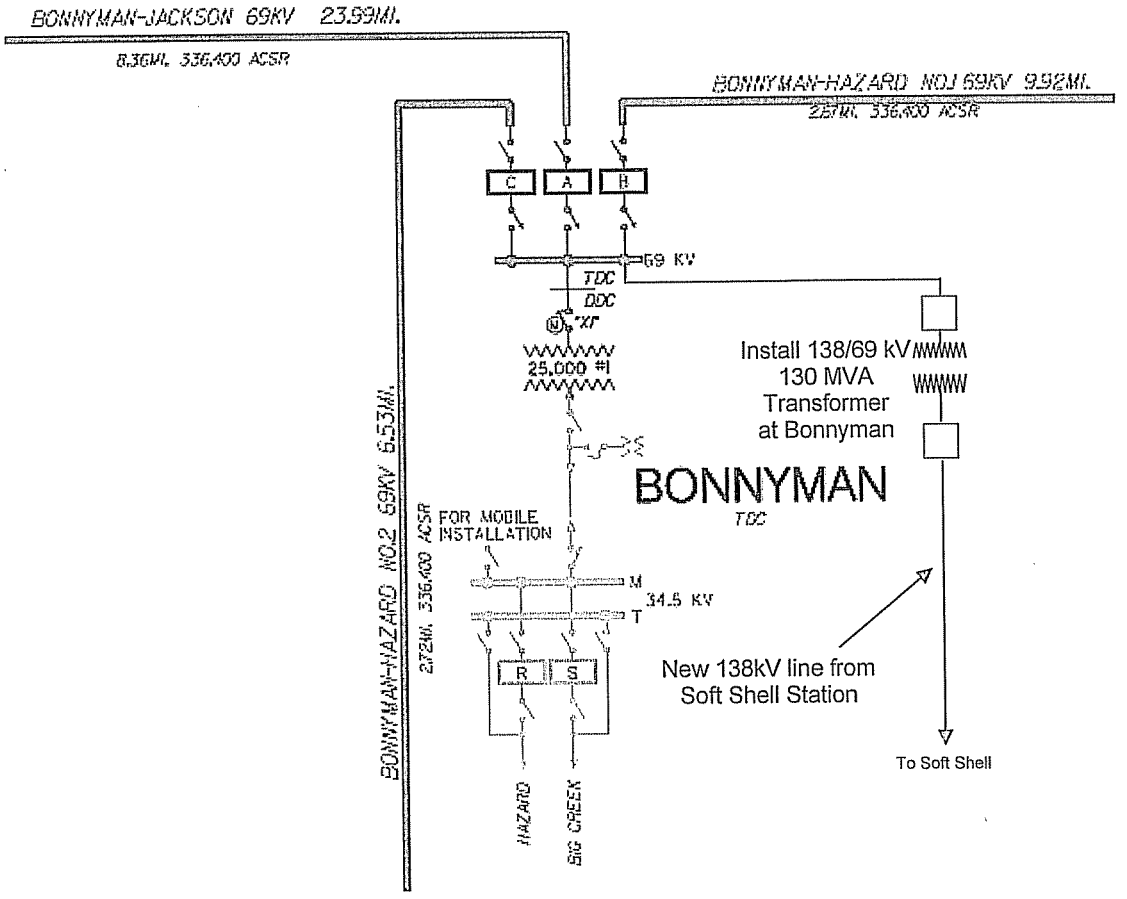


Figure 10: Station One-Line: Haddix 69kV

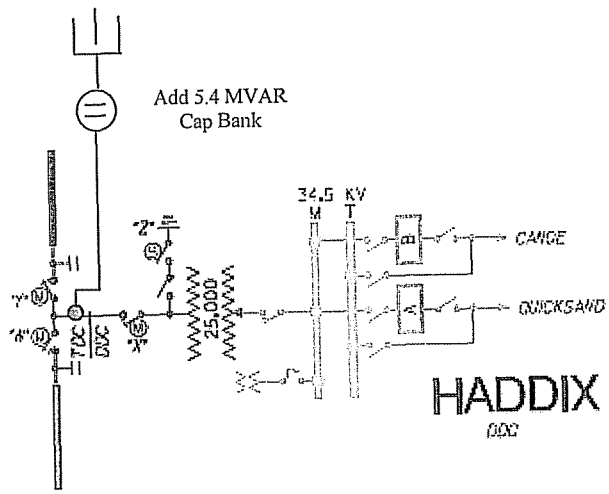
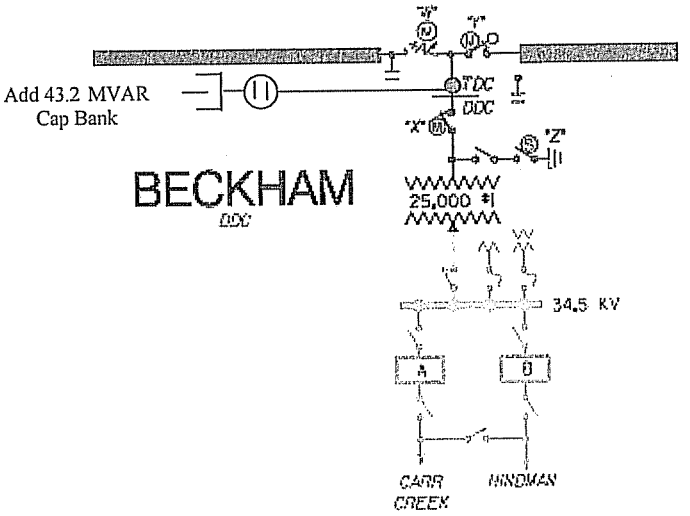


Figure 11: Station One-Line: Beckham 138kV



Hazard Area Improvement Plan, TP-2009-210 Summary of Estimated Costs of Major Project Components

Description of Work	Original Estimated Total Cost April, 2009	Phase 2 Total PRA Estimated Cost September, 2011	Estimated Phase 3 Incremental Cost
Soft Shell Station: Provide 138kV service out of station. Install 138kV circuit breaker and associated equipment.	$1,300,000	$1,875,500	
Haddix Station: Install 5.4 MVAr, 69kV capacitor bank.	$505,700	$1,540,400	
Transmission Line: Construction of a 24 mile long transmission line (ACSS 1590) from Softshell to Bonnyman Station.	$24,400,000	$24,352,500	$14,650,000
Bonnyman Station Work: Install new 138/69 trf, new 69 kV bay, new control house, equipment removal & retirement.	$7,400,000	$7,423,900	
Bonnyman Station: Purchase property for expansion.	N/A	$314,000	
Beckham Station: Install 138 kV capacitor bank.	$1,100,000	$1,904,000	
Right of Way: Obtain clearance for 138 kV line from Soft Shell – Bonnyman Station.	$3,800,000	$10,424,700	
Total Cost:	$38,505,700*	$47,835,000	$62,485,000

*Original total project estimate: $38,805,700 (Rounded to $40M, 2009 dollars)

Key Dates:

- Original project costs were estimated in 2009 and 2010.
- Detailed estimate complete in 2011.
- PRA funding was approved in December, 2009
- Phase II funding in approval routing process
- Proposed in-service date December 2014

System Performance Following Project Completion

Figure 12: 2013 Winter Thermal Profiles for Single Contingency Outages

Line Outage→	Haz1-Bulan	Bulan-Sham	Sham-Bonny	Bonny-Combs	Combs-BG	BG-Haz2
	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading
Line Monitored						
Hazard1-Bulan	NA	14%	37%	40%	43%	50%
Bulan-Shamrock	14%	NA	23%	26%	29%	36%
Shamrock-Bonnyman	37%	23%	NA	5%	7%	13%
Bonnyman-Combs	40%	32%	19%	NA	16%	27%
Combs-Bluegrass	46%	38%	24%	16%	NA	14%
BG -Haz2	60%	51%	37%	26%	13%	NA

BLUE = Planning Criteria Voltage Violation (<92% of system normal)
RED = Planning Criteria Thermal Violation (>100% of system normal)
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 13: 2013 Winter Voltage Profiles for Single Contingency Outages: New 138kV Source from Soft Shell – Bonnyman Station. 138/69kV transformer at Bonnyman Station

Line Outage→	Haz1-Bulan	Bulan-Sham	Sham-Bonny	Bonny-Combs	Combs-BG	BG-Haz2
	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit
Jackson	0.94	0.94	0.95	0.94	0.94	0.93
Haddix	0.94	0.95	0.96	0.94	0.94	0.94
Chavies	0.97	0.97	0.98	0.96	0.96	0.96

BLUE = Planning Criteria Voltage Violation (<92% of system normal)
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station

Figure 14: 2018 Winter Thermal Profiles for Single Contingency Outages. New 138kV Source from Soft Shell – Bonnyman Station. 138/69kV Transformer at Bonnyman Station.

Line Outage→	Haz1-Bulan	Bulan-Sham	Sham-Bonny	Bonny-Combs	Combs-BG	BG-Haz2
	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading	Thermal Loading
Circuit Monitored						
Hazard1-Bulan	NA	14%	38%	41%	45%	52%
Bulan-Shamrock	15%	NA	24%	27%	30%	37%
Shamrock-Bonnyman	39%	24%	NA	4%	7%	14%
Bonnyman-Combs	40%	32%	19%	NA	17%	28%
Combs-Bluegrass	48%	39%	25%	17%	NA	14%
BG-Haz 2	62%	53%	38%	27%	13%	NA

RED = Planning Criteria Thermal Violation (>100% of system normal)
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station

Figure 15: 2018 Winter Base Case Voltage Profiles for Single Contingency Outages. New 138kV Source from Soft Shell – Bonnyman Station. 138/69kV Transformer at Bonnyman Station.

Line Outage→	Haz1 - Bulan	Bulan - Sham	Sham - Bonny	Bonny - Combs	Combs -BG	BG - Haz2
	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit	Voltage Per Unit
Jackson	0.93	0.94	0.95	0.93	0.93	0.93
Haddix	0.94	0.94	0.95	0.93	0.94	0.93
Chavies	0.96	0.97	0.98	0.96	0.96	0.95

BLUE = Planning Criteria Voltage Violation (<92% of system normal)
Haz1 = Hazard #1 Transformer
Haz2 = Hazard #2 Transformer
Sham = Shamrock 69kV Station
Bonny = Bonnyman 69kV Station
BG = Bluegrass 69kV Station
NA = Not Applicable

Figure 16: Sample Thermal Profiles for Double Contingency Outage: Existing Hazard System Winter Base Case with Stinnett - Pineville (TVA) 161kV and Wooten-Hyden (EON) 161kV Lines Out

Facility Monitored	Thermal Loading (%)
Beavercreek-Topmost 138 kV	78%

Future Improvements

In the future, the 138kV line may be extended from Bonnyman Station to Hazard Station to establish a 138kV loop. This 138kV loop could potentially supply a new AEP distribution station or new customer load. Also, it would provide two-way service and improved reliability to several stations in the Hazard 69kV loop area.

gai consultants

KPSC Case No. 2011-00295

Exhibit 13

Report

Bonnyman - Soft Shell 138-kV Transmission Line
Siting Study
Perry and Knott Counties, Kentucky

GAI Project Number: C081221.10
September 2011

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Table of Contents

1.0 INTRODUCTION

As an initial step in the development of this project, Kentucky Power Company (Kentucky Power) retained GAI Consultants, Inc. (GAI) to develop and evaluate alternative transmission line route locations for overall environmental suitability and feasibility. The results of these efforts have culminated in the development of the preferred alternative that is the subject of this Siting Study and Environmental Input Assessment (EIA).

1.1 Project Description

Kentucky Power proposes to upgrade four existing substations and construct approximately 20 miles of new 138kV electric transmission line in Knott and Perry Counties to improve reliability for customers in the area. The proposed project will reduce the frequency and duration of the electrical outages experienced from time to time by the area's customers, and will help to provide the electric transmission infrastructure to support future development activities.

The proposed line connects Bonnyman Substation located north of Hazard in Perry County to the Soft Shell Substation north of the community of Soft Shell in Knott County. The project will generally be constructed on steel pole and H-frame structures approximately 100 feet in height (see Exhibits 4 and 5). A 100 foot wide right-of-way (ROW) will be required for construction and operation. The Company proposes to begin construction in 2012 and complete construction by the end of 2014.

2.0 METHODOLOGY

Kentucky Power retained GAI to develop and evaluate alternative transmission line route locations for overall environmental suitability and feasibility and to prepare this EIA for the preferred alternative developed as a result of these efforts.

The first step in the siting process involved the identification of the study area boundary encompassing the existing Bonnymand and Soft Shell substations and the intervening areas. This study area, as shown on Figure 1 incorporates an approximately 277-square mile area in Perry County, Knott County, Breathitt County, and the City of Hazard.

Corridor siting criteria were developed to form the basis of the approach to identify potential alternative transmission line routes through the study area. These criteria were employed to avoid or minimize land use conflicts; impacts upon human, natural, visual, and cultural resources; regulatory conflicts; construction, operation and maintenance problems; and project schedule delays.

Among the siting criteria employed were the following:

- avoid or minimize conflicts with existing and proposed future land uses (e.g. future coal mining extraction activities);
- avoid or minimize impacts upon human, natural, visual, and cultural resources;
- avoid or minimize visibility from populated areas or visually sensitive and designated areas;
- minimize impacts and construction and maintenance costs by selecting shorter, more direct routes;

- locate routes through terrain where economical construction and mitigation techniques can be employed, where line operation and maintenance is feasible, and where access road length is minimized;
- consistency with Kentucky Power transmission needs, project schedules, regulatory agency oversight requirements, and environmental regulations; and
- stakeholder support including property owners, coal/gas companies and local officials.

These siting criteria formed the basis of the impact/resource conflict avoidance methodology utilized to identify the alternative routes.

Following establishment of the study area, GAI utilized recent aerial photography (2006 and 2010) from the U.S. Department of Agriculture, U.S. Geological Survey (USGS) topographic mapping, and published data to compile a geographic information system (GIS) based constraints map of the study area. This map identified sensitive natural and socioeconomic resources in the area. GAI then developed preliminary alternative transmission line segments for further analysis to avoid major constraints to the extent feasible.

The preliminary transmission line segments were developed and combined in various combinations to achieve the most feasible alternative routes between the existing substation locations. In general, segments were developed to avoid major environmental and socioeconomic impacts. Segment locations were added and refined through the public and agency coordination process. The locations of these segments are shown on Figure 2.

The segments were developed and evaluated through data collected from:

- Literature Review and Data Collection: GAI collected published data and mapping of environmental resources within the project area to identify significant environmental resources that could pose constraints for transmission line siting. These included wetlands, soils, geology, public lands, designated natural areas or preserves, recreation areas, and historic resources. GAI also reviewed information concerning existing and future land uses as discussed with local officials and landowners. These data were used to create GIS database to assist in the data analysis. As a part of this effort, GAI reviewed recent aerial photography (2006 and 2010, USDA) to update and refine feature locations identified by the literature review. The sources used to obtain these data are discussed in detail in the following sections.
- Ground Reconnaissance: Field views of the study area were conducted in October 2010, December 2010, January 2011, and May 2011. In addition, a helicopter view was conducted for the Preferred Route in April 2011. Field reviews were necessary to verify identification of features on the aerial photographs, provide a current update on recent building construction and land use, and evaluate to constructability. These efforts were limited to views from public road crossings and other publicly-accessible sites. Data revisions and new information resulting from the ground reconnaissance were incorporated into the GIS database.
- Agency Coordination: Initial coordination was conducted with federal and state agencies pertaining to potential occurrence and distributions of endangered and threatened species and cultural resources of concern. Following the development of potential alternative transmission line locations, GAI conducted additional coordination with federal and state agencies. These included the U.S. Fish and Wildlife Service

(USFWS, the (KY) State Nature Preserves Commission (KSNPC), and the KY Department of Fish and Wildlife Resources (KDFWR), and the KY Heritage Council.

KY Power conducted additional coordination efforts with county officials.

The data obtained through these efforts were also incorporated into the GIS database.

- Mining Company Coordination: Extensive coal mining activities are planned in the study area and several companies have extensive holdings of mineral rights in this area. In order to identify potential conflicts between current and future mining operations and operation of a transmission line, Kentucky Power met with representatives of KY River Properties, James River Coal Company, KY Fuel Corporation, Alpha Natural Resources (formerly ICG), TECO, and Frasure Creek Coal.
- Gas Company Coordination: AEP conducted coordination with gas development and transmission companies in the project area to identify areas of current or pending development. These included EQT, Cut Through Hydrocarbon, Clean Gas, Chesapeake Energy, Kinzer Drilling, and Osborne Oil and Gas
- Landowner Coordination: Kentucky Power conducted coordination with major property owners along potential alternatives to identify potential land use conflicts and coordinated with all landowners along the preferred alternative.
- Public Coordination: Kentucky Power conducted two public workshops. One of these was held in Hindman on December 7 and in Hazard on December 8, 2010 to present information on preliminary alternatives and request public input (see Appendix A). Information was also made available via a project website, press releases, and through a phone calling system (see Appendix A). Data and information obtained through these efforts were incorporated into the GIS database.

Following completion of data collection efforts and compilation of the GIS database, each transmission line segment was evaluated. Data utilized in this evaluation are identified in Table 1. Segments were examined for potential negative factors and overall suitability as discussed in Section 4. Several segments were thus eliminated from further consideration. Combinations of the remaining segments were then examined to identify the best alternative routes. These alternative routes were then compared to provide an overall assessment of the relative merits of each of the alternatives.

Section 3 discusses the environmental constraints identified within the study area as a result of these data collection efforts.

3.0 ENVIRONMENTAL CONSTRAINTS

Refer to Figure 6, Constraints Map.

3.1 Topography and Geology

The project lies within the Cumberland Plateau and Mountains physiographic region of KY, commonly known as the Eastern Coalfields, which occupies the southwestern part of the Appalachian Plateau Physiographic Province. In general, the Cumberland Plateau is dominated by a series of sloping, uplifted, dissected plateaus capped by resistant sandstone layers [KY Geological Survey (KGS), 2005a]. The topography is characterized by deep, v-shaped valleys that have eroded through thick flat-lying or gently folded Pennsylvania age

sedimentary bearing rocks. The elevations range from 800 feet to over 1,500 feet above sea level. The only naturally-occurring flat areas are along the valleys and major streams. Extensive areas have been strip mined for coal, creating very large level areas resulting from ridgetop removal and valley fills.

The relatively flat and slightly sloping lands in the valleys are largely cleared and developed by a mix of residential, commercial, industrial, and transportation uses. The steeper slopes and ridgetops are largely forested. Extensive areas of grassland occur on reclaimed strip mines, and active mining operations occur throughout the study area, primarily north of KY Route 80. Several residential subdivisions are being developed on former strip mines in the vicinity of KY Route 80. See Appendix B for general context color photographs of the study area.

The project is situated on the Pennsylvanian-aged rocks of the Princess, Four Corners, and Hyden Formations. These formations are composed of siltstone, some sandstone, and coal. These formations are not indicative of karst topography. There are no known geologic faults located near the project. Based on USGS landslide data, the Project is located within an area of high incidence of landslides (USGS, 1999). This is based on response of the soils to natural and artificial cutting, loading of slopes, and high precipitation. Modification by excavation and fill may lead to local landslides. Blasting can have an effect on the potential for slope failure.

3.2 Hydrocarbon Resources

Oil and natural gas are common commercially extractable natural resources of the Cumberland Plateau Region (KGS, 2005b). The study area is within the eastern KY Coal Field (KGS, 2005). Coal resources in the study area were located using mine maps from the KY Mine Mapping Information System administered by the KY Mine Mapping Initiative (2007). Review of these maps indicates that there has been very extensive surface mining and deep mining in the study area. Most active mines are located north of KY Route 80. The mined coal seams are within the Breathitt Formation and include Francis, Hazard, Red Springs, Hindman and Peach Orchard coals.

As noted previously, Kentucky Power has coordinated with KY River Properties, James River Coal Company, KY Fuel Corporation, Alpha Natural Resources, TECO, ACME Resources, and Frasure Creek Coal concerning planned mining activities in the study area.

Because the identification of mine openings conducted for this siting study was compiled from remote sensing sources, it is not comprehensive. Additional unmapped, abandoned openings may occur in the area; field surveys would be required to locate all openings.

The study area contains numerous oil and gas wells and oil and gas fields (KGS, 2005b). Locations of wells were obtained from data prepared by the KY Geological Survey from the KY Oil and Gas Well Records Database. According to this data there are 1,726 oil and gas wells in the study area. Additionally, Kentucky Power has coordinated with EQT, Cut Through Hydrocarbon, Clean Gas, Chesapeake Energy, Kinzer Drilling, and Osborne Oil and Gas. Figure 6 shows the locations of mining features and oil and gas wells within the study area.

3.3 Existing Utilities

Several Kentucky Power electric transmission lines cross the study area. These include the Hazard-Bonnyman 69 kV, Engle Tap 69 kV, Hazard – Jackson 69 kV, Beaver Creek – Harbert – Spicewood 138 kV, Beaver Creek – Hazard 138 kV, and Soft Shell Extension 138

kV lines. Five Kentucky Power Substations are located within the study area including the Bonnyman, Shamrock, Engle, Bulan, and Soft Shell stations. Kentucky Power distribution lines are located throughout the study area, and run along roadway corridors where possible. No major natural gas transmission pipelines were identified within the study area. Many natural gas wells and collection and midstream pipelines serving these wells are located within the study area.

3.4 Groundwater

There are no Sole Source Aquifers in KY (U.S. Environmental Protection Agency, 2011a). Public water service is provided along many roadway corridors in the project area. Water service providers include the Hazard Water Department, Knott County Sewer and Water District, and Hindman Water Department. The Hindman Municipal Water Authority has several groundwater wells near Hindman that supply the public water system. Most residences and businesses in more rural portions of the study area rely on private groundwater wells for potable water.

3.5 Soils

The soils that comprise the majority of the study area are the Cloverlick-Kimper-Highsplint complex (CkF), the Shelocta-Gilpin Association (SGF), and the Dekalb-Rock outcrop-Latham association (DLF). All three associations are characterized by silt-loam and loamy soils overlying stony or silt-loam subsoil. The parent material consists chiefly of sandstone and shale from the Pennsylvanian age.

The CkF Complex typically occurs on occurs on very steep slopes and very narrow ridge tops. The major soils in this complex have high available water capacity and low fertility, although some minor soils in lesser slopes and flood plains have moderate fertility. The SGF Association occurs on narrow, steep and stony ridge tops. Most soils have high available water capacity and have low fertility. The DLF Association occurs on ridgetop summits and steep slopes, and includes some outcrops and boulders. Water capacity and fertility for these soils are low.

Within the study area, Grigsby- Rowdy complex, which makes up approximately two percent of the total soil, is listed as a prime farmland soil and partially hydric. It is the only soil in the study area with agricultural significance or hydric classification. This soil type is only found along thin stretches running along streams.

3.6 Existing Land Use

Land use patterns were evaluated primarily from aerial photographs, USGS topographic mapping, and from field observations. During the data collection and ground reconnaissance activities cited above in Section 2.0, existing buildings and development that post-date the existing mapping were located and incorporated into the GIS data base. Figure 3 provides aerial photography illustrating and identifying current land uses in the study area.

Kentucky Route 80 is the primary highway through the study area, which it bisects from southwest to northeast. Kentucky Power's existing transmission lines are primarily located in the southwestern portion of the study area, as are the Bonnyman, Bulan, Shamrock, and Engle Substations. The Wendell H. Ford Airport is located in the northwestern portion of the study area near Stacy.

The southwestern portion of the study area includes the City of Hazard. This area includes a mix of residential, commercial, and industrial development in the valleys. Extensive

commercial development is also located southward along the KY River valley and along the KY Route 80 corridor on former strip mine areas. The steep slopes and narrow ridgetops are generally forested, and a number of ridgetops are capped by massive resistant sandstone outcrops.

The remainder of the study area to the south and east of KY Route 80 also exhibits a similar, although less dense pattern of residential and agricultural development along narrow valley floodplains, with heavily forested slopes and ridges. Several substantial current and former surface mines are located in the vicinity of Amburgey and Hardburly. Larger communities in this portion of the study area include Darfork, Bulan, and Hindman. The CSX Railroad is located along the KY River, with a spur extending to Hardburly.

The northern portions of the study area, largely north of KY Route 80, exhibit extensive surface mine development, and extensive flat areas of grassland as well as active mining operations dominate this area. The valleys of the major streams in theis area, Troublesome Creek and Ball's Fork, still retain substantial forest cover. Residential and agricultural development occurs along valley floodplains and along the KY Route 80 corridor. Several extensive residential and recreational (golf course) developments are being constructed on former mined areas along KY Route 80. Larger communities in this portion of the study area include Stacy, Ary, Vest, and Soft Shell.

Schools in the study area include A.B. Combs Elementary in Hazard, Knott County Central High School, Cordia School, Hindman Elementary,and KY Tech in Hindman, Emelena Elementary, and Robinson Elementary. The Lost Creek Elementary School was closed in 2009. Alice Lloyd College is located in Pippa Passes and the Knott County Campus of the Hazard Community and Technical College is located in Hindman. The Hindman Settlement School in Hindman provides youth and adult educational programs. Willard Elementary, Perry Central High School, and Hazard Community and Technical College are located south of the study area in Hazard.

The Knott County Courthouse is located in Hindman. The ARH Regional Medical Center in Hazard serves the study area. Thirty-nine churches and 25 cemeteries were identified within the study area.

3.7 Future Land Use

Kentucky Power conducted extensive coordination with Perry and Knott County officials, mining companies, oil and gas producers, and individual landowners in the study area to identify potential conflicts with future land use plans. As a result of this effort, several planned residential, commercial and recreational developments were identified. The majority of these areas are located in the vicinity of KY Route 80. In addition, extensive areas of future mineral resource extraction were identified. Many of these areas are located south of KY Route 80.

3.8 Wetlands

Wetlands within the study area were identified based upon an office review of digital National Wetlands Inventory (NWI) mapping [United States Fish and Wildlife Service (USFWS) 2007b], supplemented by limited field views of the areas in the vicinity of the alternative routes in2010 and 2011.

The NWI mapping indicates a total of 455 small palustrine wetlands in the study area (USFWS 2007b) (see Figure 6). These are nearly all palustrine emergent wetlands or

palustrine unconsolidated bottom wetlands (ponds). Several additional very small palustrine emergent and forested wetlands were noted during field views on the narrow floodplains of first and second order streams in those parts of the study area visible from public roads. Natural wetlands in this landscape tend to occur in valley bottoms in association with streams. Manmade wetlands consist primarily of ponds or of former stormwater ponds or poorly graded areas on reclaimed surface mine sites.

3.9 Streams, Rivers, and Reservoirs

The large majority of the study area is within the drainage basin of the KY River. The North Fork of the KY River is located in the southwestern corner of the study area. Major streams within this drainage in the study area include Patton Fork, Balls Fork, Carr Fork, Troublesome Creek, Right Fork Troublesome Creek, Lott's Creek, Lost Creek, and Buckhorn Creek.

A small portion of the northeastern section of the study area is within the Levisa Fork drainage basin. The major streams in this portion of the study area are Jones Fork and Caney Fork.

In addition to the major streams identified previously, USGS mapping shows numerous named and unnamed tributary streams within the study area. Many of these intermittent streams are located in the steep, narrow valleys of this mountainous terrain.

There are no Special Designated Use Waters in the study area (KDOW 2011). The North Fork KY River has a TMDL established for pathogens and siltation resulting from sewage and agricultural runoff.

There are no reservoirs or other major bodies of water in the study area.

3.10 Public Drinking Water Sources

There are no public surface water sources in the study area (KY Division of Water 2011). The Hindman Municipal Water Authority has several groundwater wells near Hindman that supply the public water system.

3.11 Solid and Hazardous Waste Sites

No Superfund, RCRA, or brownfield cleanup sites are located within the study area (USEPA 2011). No contained or construction demolition debris landfills are located in the study area (KY Division of Waste Management 2011).

Thirty-five sites in the study area are identified as having underground storage tanks were identified in the study area. A number of current and former gas stations are located along KY Route 80. Many mining operations and support services have aboveground storage tanks.

3.12 Natural Heritage, Threatened and Endangered Species

The study area falls within the Central Appalachian Ecoregion as defined by Omernik (1987). This region is naturally forested. Harsh topography, shallow and infertile soils, and a cool climate have limited agricultural production within the region to shallow sloping valleys. The forest cover within the region consists of mixed mesophytic, Appalachian oak, and northern hardwood species associations (EPA 2006b). Forests in the region are highly diverse containing and impressive assemblage of oak, pine, hickory, and maple species, including scatterings of hemlock, beech, and birch. This diverse canopy promotes a high diversity of understory plants and wildlife throughout the region.

The significant forest resources in KY promote a substantial timber industry that annually produces 4.5 billion dollars in revenue and employs over 30,000 Kentuckians. Hardwoods such as white oak, red oak, and yellow poplar are the highest ranking harvested species (KY Division of Forestry, 2007)

Correspondence with the USFWS KY Field Office indicated the Indiana bat (*Myotis sodalis*), a federal endangered species, potentially occurs in the study area (Appendix C). The USFWS indicated that both summer roost and/or winter habitat for the Indiana bat may be present.

The KY Department of Fish and Wildlife Resources (KDFWR) also indicated that the Indiana Bat may occur in the study area (Appendix C). In addition, the KDFWR indicated that state-listed Henslow's Sparrow (*Ammodramus henslowii*) is known to occur within 250 feet of the project. This species breeds in open habitats dominated by thick grassy vegetation.

The KY State Nature Preserves Commission indicates that a number of species potentially occur in the project vicinity (Appendix C). These include the Elktoe (*Alasmidonta marginata* – KSNPC threatened), KY Arrow Darter (*Etheostoma sagitta spilotum* – KSNPC threatened), Northern Brook Lamprey (*Icthyomyzon fossor* – KSNPC threatened), Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii* – KSNPC special concern), Eastern Small-footed Myotis (*Myotis leibii* – KSNPC threatened), Indiana Bat (KSNPC endangered), Appalachian Rosinweed (*Silphium wasiotense* – KSNPC special concern), Common Raven (*Corvus corax* – KSNPC threatened), Sharp-shinned Hawk (*Accipiter striatus* – KSNPC special concern), and Henslow's Sparrow (KSNPC special concern).

3.13 Federal, State, or Local Natural Area Preserves and Conservation Lands

Coordination with the KY State Nature Preserves Commission indicates that there are no State Natural Area Preserves under KSNPC jurisdiction located in the project vicinity. There are no national or state parks within the study area. Several KDFWR Wildlife Management Areas are located within the study area. These include the Consol of KY WMA, Carr Creek Lake WMA, Paul Van Booven WMA, and Robinson Forest WMA.

The KDFWR has a conservation easement along Terrys Branch (Balls Fork) in the northeastern portion of the study area. This area has been conserved for floodplain, bank stabilization and riparian vegetation benefits.

3.14 Archaeological and Historic Resources

Background research of previously recorded cultural resources located within the study area was conducted using KY Heritage Council (KHC) files. The background research indicated that there are 134 previously recorded archaeological sites located within the study area. Of these previously recorded sites, none are currently NRHP-listed or determined NRHP-eligible. The background research also indicated that there are 66 previously recorded architectural and historical resources located within the study area. Of these resources, only two (KT15 and KT58) are NRHP-listed. However, KT15, the Dr. Jasper Stewart House, was recorded as demolished, and the project scoping field view confirmed the demolition of this resource. KT58 is the Sandlick Branch Log House.

3.15 Scenic Resources

No scenic byways are located within the study area (America's Byways 2011).

3.16 National Wild and Scenic Rivers, Parkways, and National Landmarks

There are no national wild, scenic or recreational rivers (National Park Service 2011, www.nps.gov/ncrc/portals/rivers/index) or state scenic rivers (KY Division of Water 2011) in the study area. There are no National Natural Landmarks within the study area (National Park Service 2011).

3.17 Floodplains

Review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Mapping (FIRM) indicates that 100-year floodplains are associated with the North Fork KY River, Upper Second Creek, Lotts Creek, Jake Branch, Grapevine Creek, Troublesome Creek, Left Fork Troublesome Creek, Right Fork Troublesome Creek, and Balls Fork within the study area (FEMA 2006).

3.18 Recreation

The Ball Creek Community Park is located along KY Route 80 near the Route 1087 intersection west of Soft Shell.

The Perry County Park is located on Perry Park Road in Hazard. It provides facilities for a variety of active and passive recreational opportunities.

The Homeplace Community Center is located near Ary.

The TransAmerica Bike trail is located along roadway ROWs through the study area, including portions of KY Route 80. The TransAmerica Trail is a route established by the Adventure Cycling Association for the U.S. bicentennial in 1976. It extends from Astoria, Oregon to Yorktown, Virginia.

The Knott County Sportsplex Community Center is located in the northeastern portion of the study area and includes a building and a number of playing fields. The Knott County ATV Training Center is located on Sutton Memorial Drive northwest of Soft Shell. It features a training center building and direct access to over 50 miles of ATV trails. Knott County is exploring the development of an adventure park system. One component of this system, the Mine Made Paradise Adventure Park opened in 2011. It offers ATV and horseback trails on 43,000 acres of reclaimed mine lands near Hindman.

3.19 Transportation/ Aviation

Kentucky Route 80 is the major highway through the study area. Other important roadways include Routes 1098160, 476, and 15. The CSX Railroad follows the North Fork KY River in the western portion of the study area, with a spur extending to Hardburly.

There is one public airport within the study area. The Wendell W. Ford Airport, is located in the northwestern portion of the study area. No private airports were identified within the study area.

4.0 ALTERNATIVES DEVELOPMENT

The development of alternative routes for the proposed transmission line followed a two-tier process. In the initial phase, three overall potential corridors were identified to link the two existing substation sites and segments were developed within these corridors. In the second phase of investigation, the segments were refined to maximize their feasibility and combined into alternative routes connecting the two substations.

The three general potential corridors that were reviewed were further subdivided based upon the existing substation locations. A northern corridor, a central, and a southern corridor were identified to potentially link the existing Bonnyman and Soft Shell Substations. The northern corridor falls primarily on the northern side of KY Route 80 and crosses undeveloped, rural, and forested lands, or lands that were previously strip mined. The southern corridor falls on the southern side of KY Route 80 and crosses undeveloped, rural, and forested lands. Both of these corridors were developed in order to best avoid impacts to commercial and residential properties while attempting to avoid the existing and future residential developments surrounding these areas. The central corridor generally follows KY Route 80 across the study area. The central corridor was developed to parallel the exiting transportation corridor and minimize potential environmental impacts to previously undeveloped areas and areas of future mining.

Segments were developed within these corridors that can be combined in various combinations to achieve the most feasible alternative routes. Thirty-five segments totaling approximately 79.1 miles were initially developed for consideration in developing alternative routes. The locations of the segments are shown on Figure 2. Each segment was then reviewed for the presence of resources that would preclude its use, or the presence of which would make its use infeasible due to potential environmental, socioeconomic, or aesthetic impacts.

Each segment was assessed for resources within a 100-foot wide ROW (50 feet on either side of the segment centerline) and/or within approximately 250 feet of the centerline of the segment as identified in Table 2. In addition, an area within one mile from the centerline was examined for the presence of airports (and private landing strips). The segments were then comparatively examined in regard to resource impacts to develop the most suitable alternative routes to connect the Bonnyman and Soft Shell substations. The intent of this process was to select segment combinations that minimize total impacts while providing for several reasonable alternative routes. These alternatives were then compared to determine a preferred alternative. As before, each alternative was assessed for resources within a 100-foot wide ROW and/or within approximately 250 feet of the centerline.

These efforts are discussed in further detail below.

4.1 Segments

Twenty-five segments were initially developed for detailed analysis and presented for discussion during the public review process. Following the review process a number of additional segments were developed in response to information obtained from comments and landowner coordination. Segments C1 and D1 were added to serve as a bridge between the northern and southern corridors near the Bonnyman Substation. Adding these segments split the original Segment E into two segments, labeled Segments E and B1. Segments G1 and J1 were added to provide options to follow KY Route 80. In addition, Segment E1 was developed to avoid current and future mining activities within the area. As a result of adding these three segments, Segment M was split to produce Segments F1, H1, I1, and M. Thus, a total of 35 segments were ultimately evaluated.

As discussed previously, each segment was assessed for resources within the 100-foot wide ROW and/or within approximately 250 feet of the centerline of the segment as identified in Table 1. In addition, the presence of airports (private landing strips) was examined for an area

of one mile from the centerline. Table 2 presents a summary of resources associated with a 100-foot wide ROW and within 250 feet of the centerline of each segment.

Through the evaluation process, a number of segments were removed from further consideration. Segments B1, D, E, F, F1, I, I1, J, K, N, R, and X were not considered further based information obtained in the public information process. It was determined that some of these segments potentially conflicted with future residential, commercial, or resource development, and therefore had a high future relocation risk. Other segments were removed because the removal of connecting segments made their use in development of alternative routes infeasible.

Impacts potentially incurred by the remaining 23 segments were evaluated as presented in Table 2. Based upon this preliminary analysis, it was determined that all 23 segments could be considered in the development of alternative routes. There were no fatal flaws, or exceptionally high impacts identified with these 23 segments that would preclude their further consideration.

4.2 Alternative Routes

The remaining 23 segments were utilized to form alternative routes to connect the existing Bonnyman and Soft Shell Substations. The intent of this process was to select segment combinations that minimize total impacts while providing for several reasonable alternative routes to connect the substations. Five routes were developed and designated as Routes 1-5. A total of 23 segments are used in these alternatives. Table 3 provides a summary of the segments incorporated into each alternative. The alternative routes are shown on Figure 3.

Alternative Route 1 is the northern most route. The route was developed to avoid current residential and commercial development along KY Route 80 and minimize impacts to forested areas by directing the route through previously strip-mined locations. The route is approximately 22.2 miles long and is longest of all considered. Route 1 exits the existing Bonnyman substation and proceeds in a westward direction for approximately 0.5 mile using Segment A. At this point the route turns to the northeast and proceeds in this direction for approximately 9.0 miles crossing forested areas and reclaimed strip mines using Segments A, A1 and E1. Over this stretch the route crosses KY Routes 15, 267, 1146, and 476 and passes approximately 0.5 mile to northwest of Blue Diamond and 0.6 mile to the northwest of Ary. The route turns and proceeds primarily eastward for approximately 10.5 miles, following ridges through reclaimed strip mines for approximately 6.5 miles along Segments M and K1 before passing through forested areas and crossing over KY Route 80 approximately 0.5 mile south of the intersection of KY Route 80 with KY Route 1087/1098 along Segment W. Here the route turns north for approximately 1.2 miles crossing over KY Route 1087/1098 and terminating at Soft Shell Substation using Segment Y.

Alternative Route 2 was developed using the same principles guiding the placement of Route 1, to avoid development along KY Route 80 and minimize impacts to forested areas. As a result, Route 2 follows much of the same alignment as Route 1, but provides an alternative to avoid residential and commercial development near Bonnyman Substation. In total, Route 2 is approximately 21.5 miles long and is the second longest of all routes. Route 2 exits the existing Bonnyman Substation and proceeds to the northeast for approximately 0.25 mile crossing over KY Route 15. The route then turns eastward for another 0.25 mile crossing KY Route 267 and climbs a forested ridge that runs parallel to both KY Route 80 and KY Route 267 along Segments B and C1. Here the route follows the ridge to the northeast for

approximately 1.2 miles before turning north and crossing KY Route 267 near Blue Diamond. The route runs north for approximately 0.8 mile before turning to the northeast along Segment C1 and D. At this point Route 2 follows the same path as Route 1 to Soft Shell Substation along Segments E1, M. K1, W and Y.

Alternative Route Route 3 was developed to parallel the existing KY Route 80 transportation corridor and minimize environmental impacts. Route 3 is approximately 20.0 miles long. Route 3 exits the Bonnyman Substation following Segment B along the same alignment described for Route 2. Once across KY Route 267, the route follows Segment C and G to the east for approximately 2.1 miles. In this location the route is on the north side of KY Route 80 on a wooded ridge set behind a strip mall. The route then follows Segments H, L, G1, and H1 to the northeast for approximately 5.8 miles. Along this stretch, the route initially runs on the north side of KY Route 80 along Segment H. Here the route is located behind the commercial development directly adjacent to the roadway on the edge of a previously strip mined location. After crossing over KY Route 1146, the route then crosses to the south side of KY Route 80 on Segment L to avoid a residential development. The route then proceeds to the northeast on the south side of KY Route 80 primarily crossing forested areas. After crossing KY Route 476 on Segment G1, the route moves to the north side of KY Route 80 on Segment H1 to again avoid a residential development. Here the route turns to the east on Segment J1 for 4.0 miles, crossing KY Route 80 two times before angling to the northeast to intersect with Segment K1. The route then runs along Segment K1 for 1.9 miles crossing previously strip mined lands. The remainder of the route identical to Route 1 and 2, and follows Segments W and Y before terminating at Soft Shell Substation.

Alternative Route 4 falls within the southern corridor and was compiled to avoid residential and commercial developments along KY Route 80 and mining developments in the northern half of the study area. Route 4 is approximately 20.7 miles in length and with Alternative 5 is the second shortest among all of the routes. Route 4 initially follows the same alignment as Route 3 when exiting Bonnyman Substation, following segments B, C, G, H, and L to the northeast along the north side of KY Route 80. After crossing to the south side of KY Route 80 along Segment L, the route heads east for approximately 2.0 miles on Segment P and angles to the northeast for approximately 3.6 miles on Segment Q. Here the route primarily crosses forested land. After crossing KY Route 550, the route follows Segment T and V to the east/northeast for approximately 6.0 miles, crossing forested lands to the south of KY Route 80. At this point, the route follows Segment Y for 1.3 miles into Bonnyman Substation similar to Routes 1, 2, and 3.

Alternative Route 5 was developed as a hybrid, using both the northern and southern corridors to avoid residential and commercial developments along KY Route 80 and mining developments in the northern half of the study area. Route 5 is approximately 20.7 miles long and with Alternative 4 is the second shortest of all the routes. Route 5 follows the same alignment as Route 4 for the first 13.3 miles from Bonnyman Substation. Route 5 follows Segment B, C, G, H, L, O, P and Q. Once the route reaches Segment Q and crosses over KY Route 550, Route 5 heads north along Segment S for approximately 2.4 miles. Here the route crosses to the north side of KY Route 80 crossing forested or previously strip mined areas. The route then turns east for approximately 3.8 miles along Segment W crossing forested areas and KY Route 80 before following Segment Y to the north and terminating at Soft Shell Substation.

4.3 Selection of Preferred Alternative

Table 4 provides a comparative summary of potential constraints and opportunities associated with each of the alternatives. Based on the evaluations conducted for this study, no obvious fatal flaws were identified in association with any of the alternatives advanced for detailed study. Therefore, all routings appeared to be potentially suitable at this stage of analysis

The routes vary in length from 20.0 miles (Route 3) to 22.2 miles (Route 1). The numbers of affected landowners as determined through GIS data varies as well, ranging from 95 parcels crossed (Route 3) to 131 parcels crossed (Route 1). All alternatives will require the displacement of a residence for expansion of the Bonnyman Substation. Route 1 would require the displacement of an additional residence and commercial structure that have been built within the existing ROW of the Beaver Creek – Hazard 138kV line. Alternatives 2 and 3 are similar in having 16 or 19 major structures within 250 feet of the centerline. The numbers for the other routes include 22 for Alternative 5, 27 for Alternative 4, and 34 for Alternative 1.

The alternative routes vary considerably in the landscape traversed by each. Previously mined areas crossed are highest with the northern and central routes, including approximately 10.6 miles crossed for Alternative 1, 10.7 miles for Alternative 2, and 9.4 miles for Alternative 3. Previously mined areas crossed by the southern routes are substantially less, including approximately 7.3 miles for Alternative 4 and 7.8 miles for Alternative 5. Conversely, the amount of forest within the ROW also varies with less clearing required for the northern and central routes (approximately 155 acres for Alternative 1, 168 acres for Alternative 2, and 173 acres for Alternative 3) versus the southern routes (approximately 209 acres for Alternative 5 and 219 acres for Alternative 4). Lesser forested impacts also have reduced potential for impact to a number of species of concern including the federally endangered Indiana Bat.

The compatibility of the alternatives with future land use plans varies greatly. Kentucky Power made extensive contacts with coal and natural gas companies in the study area. As a result of these efforts, it was determined that both northern and southern routes have high potential for the future development of surface mining activities. The extent of potential future mining activities along the KY Route 80 corridor (Alternative 3) is significantly lower. The potential risk of relocation of the line due to future mining has been estimated at approximately 10 percent for Alternative 3, 30 percent for Alternatives 1 and 2, and 50 percent for Alternatives 4 and 5). Contacts with local landowners during the public workshop process identified generally moderate opposition to Alternatives 1, 2, 4 and 5. Conversely, Alternative 3 was viewed as generally compatible with existing and planned uses.

Alternatives 1, 2, and 3 would be more visually compatible with the landscape than Alternatives 4 and 5. These alternatives cross substantial areas of previously mined land. Alternatives 4 and 5 are located in a largely wooded landscape where the introduction of new ROW would contrast and be more noticeable.

No agricultural lands, prime farmland soils, or farmland soils of statewide importance are adversely affected by any of the alternatives.

Streams crossed by the alternatives are highest with the southern routes (approximately 22 for Alternative 4 and 23 for Alternative 5). Alternatives 1, 2 and 3 cross approximately 15, 16, and 17 streams, respectively. The potential extent of wetlands within the ROW appears to be greatest with Alternatives 1 and 2. However, it is anticipated that most wetlands would be located in the valleys and thus spanned by the transmission line.

Based on this analysis, it appears that the Alternative 3 is the most suitable route. The key feature of this alternative is its location in the central portion of the study area generally following the KY Route 80 corridor. Routes to both the north and the south have greater potential conflict with future land use plans, especially surface mining. Alternative 3 is compatible with the variety of mixed uses along the Route 80 corridor. Thus, Alternative 3 has significantly less relocation risk and associated costs as compared to the other alternatives. Alternative 3 was developed iteratively and in coordination with stakeholders and is strongly endorsed by the local government officials and major landowners (see Exhibits 14 to 19 of the Application). Kentucky Power has contacted all landowners along Alternative 3 and only one has expressed opposition (see Exhibit 9 of the Application). The estimated costs to construct Alternative 3 are the lowest as compared to the other alternatives (approximately 10 percent less); this is a factor of line length, number of line angles, terrain and forest clearing. Finally, due to its proximity to Route 80, there are numerous existing access roads which can be utilized for construction and maintenance. In general, the other alternatives deflect away from Route 80 and have less existing access roads. For all alternatives, storage and laydown yards for materials will utilize existing fields or cleared lots as practicable.

Table 4 identifies the resources potentially affected by the preferred alternative. The following section provides a detailed analysis of potential impacts associated with the 100-foot ROW for the preferred alternative.

5.0 ANALYSIS OF PREFERRED ALTERNATIVE

In the following discussion, "preferred alternative" means the 100-foot wide ROW of Alternative Route 3. The preferred alternative is shown on Figures 4 and 5.

5.1 Socioeconomics

Reliable power is essential for hospitals, nursing homes, schools, businesses and industry. The proposed project will meet the growing electrical demands and improve reliability for customers in the area.

The Hazard area industry is dominated by mineral and gas extraction. Hence, avoiding conflicts between the transmission line and mining/gas activities is critical to avoid economic impacts. Potential risk of relocation and conflict of the line due to future mining has been estimated at approximately seven percent for Alternative 3, which is by far the least of the alternatives. Gas wells were avoided during siting and will be further avoided during final engineering as practicable. No or minimal impacts to coal or gas activities are expected by the preferred alternative.

A primary siting objective was to avoid and minimize impacts on people. As a result, only one home, adjacent to the Bonnyman Substation, will be displaced from the 100-foot substation expansion.

Property value effects are speculative and unlikely.

Kentucky Power would conduct ROW acquisition and construction within the preferred alternative 100-foot ROW so as to not impact existing or planned businesses or industry.

During the approximate 18-month construction phase, the average on-site workforce in the Hazard area can be expected to be 30 to 40 workers. As a result, the project construction would generate direct and indirect jobs: construction materials and services to the project;

temporary construction workers; and construction payroll spending in the local area by workers (i.e. room, food, supplies, and entertainment).

Other economic benefits from the project include approximately $10 million dollars injected into the local economy to acquire 20 miles of 100-foot ROW easements. Annual increased property tax revenues from the project are estimated at the following: $380,000 in Perry County, $378,000 in Knott County, and $20,000 in Breathitt County.

5.2 Existing Utilities

Construction of the project will allow Kentucky Power to solve the immediate loading and reliability concerns in the study area. Approximately one mile of the preferred alternative will be built in a double-circuit configuration within the existing Hazard-Bonnyman 69 kV ROW. The existing three-phase Hazard – Bonnyman 69 kV line will be built onto one side of the proposed 138 kV steel lattice structure (T3 series) in a vertical configuration.

No impacts to other major utility infrastructure or service are anticipated with the preferred alternative. A water tank owned by the Hazard Water Department is located within 250 feet of the preferred alternative and will not be affected.

5.3 Land Use

The area crossed by the preferred alternative is dominated by reclaimed surface mine lands and forested slopes. Of the approximately 242 acres in the 100-foot ROW, approximately 30 acres are current or reclaimed mine lands and 173 acres are forested. No residential land (yards) is located within the transmission line ROW. One area of former commercial use (gas station) is crossed along KY Route 80 in Knott County.

The current Bonnyman Substation will be expanded through the acquisition of adjoining 0.45 acre and 0.22 acre tracts of land and the demolition of one two-story, wood-framed residence. The tracts of land and residence are currently subject to an option to purchase by Kentucky Power.

As identified in Table 4, with the exception of the house at the Bonnyman Substation, there are no major buildings within the ROW of the preferred alternative. The canopy of a former gas station island along KY Route 80 is within the ROW and will be removed. There are approximately 19 major structures within 250 feet of the centerline, including 14 residences, four commercial or industrial buildings, and one barn.

5.4 Planned Land Use

Kentucky Power coordinated extensively with Perry and Knott County officials, mining companies, gas producers, and all individual landowners within the 100-foot ROW to identify potential conflicts with future land use plans. As a result of this effort, several planned residential, commercial and recreational developments as well as future mineral resource extraction plans were identified and modifications were made during the route selection process to avoid or minimize impacts to these locations. No substantial impact to future land use plans are anticipated as a result of construction of the preferred alternative.

5.5 Soils and Farmland

The University of KY's William and Jasper Stewart Agricultural Extension Farm is crossed by the preferred alternative. Most of the site is forested. The University of KY has indicated that it has no objection to the crossing of the facility by the preferred alternative.

No prime farmland soils or farmland soils of statewide importance occur within the 100-foot ROW of the preferred alternative.

5.6 Wetlands

Approximately 0.4 acre of NWI wetlands is located within the 100-foot wide ROW of the preferred alternative. Approximately 1.7 acres of hydric soils are also located in the ROW. These areas have the potential to support wetland communities. Several additional palustrine emergent and forested wetlands were noted during field views on the narrow floodplains of first and second order streams in those parts of the study area visible from public roads. And several small emergent wetlands were noted in areas of poor drainage or former sedimentation ponds on mine sites.

It is expected that these areas will be spanned by the project. Forested wetlands are located within valleys and the emergent wetlands are not located at structure locations. In the event that wetlands are located in these or other locations, the following general mitigation procedures will be followed: minimize ground surface disturbance, minimize the extent of vegetation clearing in the wetland and vicinity, provide for a vegetative buffer strip around the wetland, re-establish vegetation following construction, protect and maintain existing drainageways, and incorporate site-specific erosion and control measures.

Prior to construction of the project, Kentucky Power will conduct a wetland delineation within the ROW and obtain any required state and federal permits for wetland impacts. Any required mitigation measures will be developed in accordance with permit requirements.

ROW maintenance will be performed using mechanical and herbicide methods. Low residual herbicides approved by the USEPA or USFWS for aquatic use will be used in the vicinity of wetlands and other water bodies.

5.7 Streams, Rivers, and Reservoirs

The preferred alternative crosses approximately 17 streams within the 100-foot ROW as identified on USGS topographic mapping. All of these streams are in the KY River Watershed. The major named streams crossed include First Creek, Troublesome Creek, Bear Branch, Roaring Branch, Beech Creek, Big Sandlick Branch, Laurel Fork, Trace Branch, Pond Branch, Sandlick Branch, Terry Branch, and Balls Fork. Two additional mapped streams occur within the 500-foot corridor. These are Peedee Branch and Elisha Branch.

There are no Special Designated Use Waters crossed by the preferred alternative (KDOW 2011).

All streams will be spanned by the transmission line. No construction in or direct permanent impact to stream channels are anticipated as a result of the transmission line. Some streams may require temporary crossings for construction access.

The following general mitigation procedures will be used as practicable in the vicinity of streams and waterbodies: incorporate appropriate erosion and sediment control measures to minimize impacts, minimize disturbance of vegetation canopy to the extent feasible and maintain a vegetative buffer of at least 50 feet along each side of the stream channel. Any temporary culverts to be installed for equipment access will be designed to maintain low flow conditions and to not impede normal and high flow volumes. Any streambank disturbance will be stabilized and restored immediately after construction.

Prior to construction of the project, Kentucky Power will obtain any required state and federal permits for stream impacts. Any required mitigation measures will be developed in accordance with permit requirements.

ROW maintenance will be performed in accordance with Kentucky Power's ROW clearing, restoration, and maintenance guidelines. Low residual herbicides approved by the USEPA or USFWS for aquatic use will be used in the vicinity of streams and other water bodies.

5.8 Springs

No major springs have been identified in the vicinity of the preferred alternative corridors or within the 100-foot ROW. In the event that a spring is identified during further project development, the following general mitigation measures will be employed: minimize ground surface disturbance, provide vegetative buffers, avoid alteration of drainage patterns in headwater areas, and prohibit herbicide use in the vicinity.

Additional site-specific mitigation measures that may be used include:

- Field verify location and magnitude of flow from springs during field survey for final design. If flows are sufficient to contribute to surface runoff into the drainage network during the wet season, springs with a full vegetative canopy will be protected with a buffer of at least a 50-foot radius.
- Utilize low residual herbicides approved by the USEPA or USFWS for aquatic use will be used in the vicinity of springs.
- Employ erosion and sediment control specifications for drainage ways and streams as appropriate.

5.9 Air Quality

Kentucky Power will not burn debris from ROW clearing or other construction-related activities.

5.10 Geology, Karst and Groundwater

No major karst development or known cave systems were identified in the vicinity of the preferred alternative.

Public water service is provided along many of the roadway corridors crossed by the preferred alternative. Most residences in more rural portions of the preferred route rely on private groundwater wells for potable water. No groundwater wells have been identified within the 100-foot ROW of the preferred alternative. In data provided by the KY Division of Water, one residential well is shown within the ROW of the preferred alternative within the existing Hazard-Bonnyman 69 kV line ROW. Based on discussions with the landowner, this appears to be in error. Four additional groundwater wells are located within 250 feet of the route as identified by the KY Division of Water.

5.11 Public Drinking Water Sources

There are no public water sources within one mile of the preferred alternative (KY Division of Water 2011).

5.12 Mineral Resources

Approximately 6.5 miles of currently permitted or planned future coal mining areas are crossed by the preferred alternative. Extensive coordination was conducted with KY River Properties, James River Coal Company, KY Fuels Corporation, Alpha Natural Resources, TECO, ACME Resources, and Frasure Creek Coal concerning existing and planned mining activities in the study area. The coal companies with active interest in the area crossed by the preferred alternative have indicated that the location of the proposed line will not impact current mining activities and will not have substantial impact on potential future mining activities (see Exhibits 16 to 19 of the Application).

Approximately 9.4 miles of previously mined areas are crossed by the preferred alternative. No adverse effects on reclaimed mine sites are expected as a result of construction or operation of the transmission line.

Data concerning oil and and wells and pipeline facilities in the study area was obtained from the KY Geologic Survey and was supplemented by information obtained from EQT Gas Company, Cut Through Hydrocarbon, Clean Gas, Chesapeake Energy, Kinzer Drilling, Osborne Oil and Gas, and landowners. No existing or proposed oil or gas wells are located within the 100-foot ROW of the preferred alternative. Several pipelines and proposed pipelines are crossed. These facilities will not be affected by the transmission line.

No other mineral extraction activities have been identified within the 100-foot ROW of the preferred alternative.

5.13 Solid and Hazardous Waste Sites

A review of publically accessible federal and state databases identified no documented solid or hazardous waste concerns that appear to be associated with the preferred 100-foot ROW. A former gas station is located within the ROW along KY Route 80 in Knott County. There is a potential for contamination from leaking storage tanks on this site. This property will be spanned and no ground disturbance would occur as a result of the project.

5.14 Natural Heritage, Threatened, and Endangered Species

GAI has coordinated with the USFWS, KDFWR, and KSNPC as contained in Appendix C, respectively.

The USFWS KY Field Office indicated the Indiana bat, a federal endangered species, potentially occurs in the study area. The USFWS recommended that the project area be surveyed for potential hibernacula sites such as caves, rock shelters, and abandoned mines, identify any sites present in the impact area, and avoid them pending their analysis as bat habitat. Kentucky Power will conduct this survey in 2011 and coordinate the results and any required mitigation measures with the USFWS. The USFWS also recommended the implementation of a tree clearing restriction between April 1 and October 14, or in lieu of this the conducting of a mist net survey to determine presence/ absence of the Indiana Bat or the implementation of a Conservation Memorandum of Agreement. Kentucky Power will conduct mist net surveys during 2011 and coordinate the results and any required mitigation measures with the USFWS. On February 15, 2011, GAI and Kentucky Power met with USFWS and they stressed alternatives with low forest clearing are favorable since it reduces potential Myotis bat habitat impact. Approximately 173 acres of forest clearing would be required for Alternative 3 as compared to the highest 219 acres for Alternative 4.

The KDFWR indicated that state-listed Henslow's Sparrow is known to occur within 250 feet of the project. This species breeds in open habitats dominated by thick grassy vegetation. A number of reclaimed mine sites containing this general habitat type are crossed by the project. The proposed project would not result in the alteration of this habitat type. Therefore, no long term impact to this species would be anticipated. Short-term impacts could occur if construction occurs in the vicinity of nest sites during the breeding season.

The KSNPC indicates that a number of species potentially occur in the project vicinity. The Elktoe (KSNPC threatened), KY Arrow Darter (KSNPC threatened), and Northern Brook Lamprey (KSNPC threatened) are aquatic species. The documented occurrences of these species in the project area are not directly affected by the project. Streams will be spanned by the transmission line. Potential impacts to these species would be mitigated by the implementation of appropriate erosion controls. Kentucky Power will conduct additional coordination with KSNPC should any streams be crossed by new access roads.

Rafinesque's Big-eared Bat (KSNPC special concern) and the Eastern Small-footed Myotis (KSNPC threatened) potentially occur in the project area. Bottomland forests and riparian corridors favored by these species will generally be spanned by the transmission line. Surveys for potential hibernacula for these species as well as presence/absence mist net surveys will be conducted as part of the surveys for the Indiana Bat. Kentucky Power will coordinate the results and appropriate mitigation measures with the KNPC.

The Appalachian Rosinweed (KSNPC special concern) occurs in openings on forested slopes and roadsides at the base of forested slopes. The documented location of this species in the project area will not be affected, although areas of potential habitat could be affected by the project.

The Common Raven (KSNPC threatened) occurs in various habitats and nests on cliffs, coniferous trees, or man-made structures. The documented location of this species in the project area will not be affected No cliffs or structures will be affected. Although forests in the project area are dominated by deciduous trees, coniferous trees could be impacted by the project. The Sharp-shinned Hawk (KSNPC special concern) also utilizes a variety of habitats, but typically nests in areas of extensive forest, particularly with some evergreens. Forest areas will be affected by the project.

5.15 Federal, State or Local Natural Areas, Preserves, and Conservation Lands

Coordination with the KSNPC, KDFWR, county officials, and landowners has indicated that no state or local natural area preserves or conservation lands are within the preferred alternative 100-foot ROW or vicinity.

The University of KY's William and Jasper Stewart Agricultural Extension Farm is crossed by the preferred alternative. The University of KY has indicated that it has no objection to the crossing of the facility by the preferred alternative. The KDFWR conservation easement area on this property has been avoided.

5.16 Archaeological and Historic Resources

Preliminary background research was conducted on architectural resources located within a 0.25-mile buffer on either side of Alternative 3. This study area took into account both the potential physical impact from the proposed transmission line as well as potential visual effects. Three previously recorded architectural resources (KT-33, KT-15, and KT-22) were identified within this study area. In addition, review of the Handshoe, KY (1992), Vest, KY

(1992), Carrie, KY (1992), and Hazard, KY (1992) USGS Quadrangle maps revealed the presence of eight possible historic-period cemeteries within the proposed project SA.

A field view was then conducted in May 2011 to include a systematic reconnaissance of standing structures within the study area for the preferred alternative. No National Historic Landmarks (NHLs) or National Register of Historic Places (NRHP)-listed properties occur in this study area. Buildings, structures, and objects appearing to be 50 years of age or older were photographed with a high resolution digital camera, and locations were marked on project aerial maps. The field view was limited to access along public ROW. Therefore, some properties within the area were not accessible due to being located on private roads and/or not being visible from public ROW.

Forty-nine architectural and historical resources were identified as a result of the field view. Of these resources, the Jasper and William Stewart House (KT-33), was previously recorded. The field view revealed that the other two previously recorded resources, the Dr. Jasper Stewart House (KT-15) and Big Branch of Ball Elementary School (KT-22), identified during background research, have been demolished and are no longer extant. The field view resulted in the identification of only two historic-period cemeteries (GAI-04 and GAI-23) within the survey area. The remaining cemeteries were located on private drives or not visible from the public ROW and therefore not evaluated.

The field view was conducted for reconnaissance purposes only, and formal evaluations of the identified architectural and historical resources were not undertaken. Based on the results of the field view, it does not appear that any of the previously recorded or undocumented resources viewed are eligible for NRHP listing. However, should the project require future consultation with the KHC, further evaluation and documentation may be required for at least one resource (GAI-30, Bill's Groceries, Etc.). None of the identified resources will be physically impacted by the preferred alternative. Because none of these resources appear to be NRHP-eligible, no visual impacts to resources of concern are anticipated.

Two previously recorded archeological sites are crossed by the preferred alternative. These locations have been destroyed by previous land use.

5.17 Scenic Resources

No designated scenic resources are within the viewshed of the preferred alternative.

A qualitative visual impact evaluation was conducted to assess the comparative quality of the landscapes affected and examine the overall effects to visual quality along the alternative routes. Routes and their associated viewsheds were evaluated using mapping data, aerial photography, and field views. The preferred alternative was also examined via a helicopter survey in April 2011.

The preferred alternative would have low visual contrast with the existing visual landscape which is rural in nature with extensive reclaimed strip mine sites. It also follows the KY Route 80 corridor for substantial distances. This corridor contains a mixed viewshed of large rock cuts, industrial and commercial facilities, scattered residential development and wooded slopes. In general the viewsheds and sight distances along Route 80 and throughout the viewshed of the preferred alternative in general, are very limited due to topography.

The Bonnyman substation expansion is located immediately adjacent to the existing substation in an area of mixed use, including an adjacent bowling alley, several houses, and multiple transmission line and road ROWs.

The preferred alternative would cause the minimal visual effect to the surrounding landscape from the introduction of the proposed transmission line. This is due its location on former surface mines, away from densely populated areas, and along the KY Route 80 corridor and its diversity of land uses. In addition, views of the preferred alternative are buffered from most receptors, including vehicles on Route 80, by topographic conditions and vegetation.

Kentucky Power will utilize the following mitigations to reduce project impacts to visual resources:

- Minimization of Disturbance (ROW clearing) – During clearing of trees and vegetation, activity will be limited to the 100-foot ROW area and to danger trees located along the edge of the ROW. In addition, trees that are not identified for removal will be protected from construction activity to the extent practicable.
- Final Siting - Kentucky Power is requesting that the PSC approve a preferred 500-foot corridor to allow for the refinement of the location based on design needs, accurate survey data, minimization of visual resource impacts and landowner preferences. This corridor extends 250 feet to either side of the preferred corridor centerline. Within this corridor, a final 100-foot ROW will be sited.
- Structure Material - The structures will use "weathering" steel, which appears brown in color and has low sunlight reflectivity – low reflectivity reduces visual impacts by decreasing shine and glare from the pole structure.
- ROW Clearing Restoration - Careful implementation of Kentucky Power's erosion and sediment control measures will be followed. A plan will be developed and submitted for review to proper authorities as required. In areas of cut and fill disturbance, seeding and fertilizing will be implemented to speed revegetation, screening and reduce erosion as required.
- Mulching and Scattering Woody Material - Tree slash debris from ROW clearing will be scattered to extent practical onto non-seeding areas to maintain a more appropriate texture and low contrast with existing visual environment.
- Staging Area - The staging area will be located in an existing field or lot. No clearing and only minimal site preparation will be required for this temporary visual impact.

5.18 Erosion and Sediment Control

Kentucky Power's General Erosion and Sediment Control Specifications will be implemented for all transmission facility construction related to the proposed project, including ROW clearing, structure erection, and access road construction and use. In addition, a site-specific erosion and sediment control plan will be prepared as required by regulatory agencies.

5.19 National Wild and Scenic Rivers, Parkways, and Natural Landmarks

No national or state wild and scenic rivers or national natural landmarks are located in the project area.

5.20 Floodplains

The preferred alternative will cross FEMA mapped 100-year floodplains associated with Troublesome Creek and Roaring Branch. It is anticipated that these areas will be spanned. No impacts are anticipated.

5.21 Recreation

The TransAmerica Bike Trail is crossed three times by the preferred alternative on roadway ROWs. The trail will be spanned and no impacts will occur. No other recreation areas or facilities are crossed by the preferred alternative. A soccer field is located on KY River Properties land northeast of Bonnyman. This facility is located approximately 400 feet from the proposed line.

5.22 Pesticides and Herbicides

ROW and substation maintenance will be performed in accordance with Kentucky Power's ROW clearing, restoration, and maintenance guidelines. Herbicide use specifications associated with these specifications include the following:

- any herbicides used will be applied in accordance with applicable state and federal laws and regulations;
- any herbicides used shall be registered with the USEPA;
- any herbicides will be used in accordance with the manufacturer's label directions and recommendations;
- all herbicide applications will be performed under the direct supervision of certified applicators;
- herbicides will not be applied when rainfall is imminent, during rainfall, or within one day of large rain events (usually greater than one cm) that result in soil moisture capacity occurring above field capacity; and
- buffer zones will be maintained around streams, ponds, wetlands, and water supply wells in accordance and compliance with herbicide label directions.

5.23 Transportation/Aviation

The preferred alternative has 20 road crossings. These include nine crossings of major (state) roads, including KY Routes 15, 80, and 476. All roadways will be spanned. No permanent impacts will occur.

Temporary traffic delays during construction may occur. Kentucky Route 80 is a heavily traveled thoroughfare. Construction across KDOH ROW will require a permit from KDOH. Kentucky Power will coordinate with KDOH on construction issues and obtain required permits for roadway crossings.

No public or private airports are located within one mile of the preferred alternative.

6.0 SUMMARY

Kentucky Power proposes to construct a 138 kV transmission line in Perry and Knott Counties, KY and expand the existing Bonnyman Substation to address reliability concerns. Kentucky Power retained GAI to develop and evaluate alternative transmission line route locations for overall environmental suitability and feasibility and to prepare this EIA for alternatives developed as a result of these efforts.

An extensive data collection and analysis effort was implemented, which included public and agency coordination components. As a result of this effort, Alternative 3 has been recommended as the preferred alternative. This preferred alternative minimizes impacts to

socioeconomic resources, current and future mining activities, minimizes visual impacts, and avoids significant impacts to natural resources.

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U. S. Geologic Survey. 1977. 1:100,000 Pikeville Quadrangle

U. S. Geologic Survey. 1982. 1:100,000 Williamson Quadrangle

U. S. Geologic Survey. 1976. 1:24000 Haddix Quadrangle

U. S. Geologic Survey. 1976. 1:24000 Noble Quadrangle

U. S. Geologic Survey. 1976. 1:24000 Krypton Quadrangle

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TABLES

Table 1

RESOURCE ANANYSIS PARAMETERS

Resource	Area of Analysis	
	100-Foot Wide ROW	Within Approximately 250 Feet of Centerline
Urban Features		
Residences	X	X
Business/Commercial Structures	X	X
Schools	X	X
Churches	X	X
Cemeteries	X	X
Barns	X	X
Other Major Structure/ Facility	X	X
Residential Yards Crossed	X	
Airports		within 1 mile
Oil/Gas Wells	X	
Coal Outcrop	X	
Water Wells	X	
Future Land Use		
Industrial/Commercial Development	X	
Surface Mining	X	
Natural and Cultural Resources		
Wetlands	X	
Streams	X	
Forest	X	
Prime Farmland Soils	X	
Previously Documented Architectural Resources	X	X
Previously Documented Archaeological Resources	X	X
Potential Rare Species Occurrence	X	X
Recreational and Aesthetic Resources		
Bikeways	X	
Scenic Byways	X	
Trails	X	
Parks	X	
Constructability Issues		
Cost	X	
Relocation Risk	X	

					Natural Resources				
Segment	Length (miles)	Length Parallel Existing Line (mi)	Residences	Commerc Bldg	ctural urce	Archaeological Resources	Oil/Gas Wells	Previously Mined Areas (mi)	Current and Future Mining (mi)
A	2.7	2.6	2/25	1/3	)	0/0	0/0	1.5	2.7
A1	0.4	n/a	0/0	0/0	)	0/0	0/0	0.4	0.4
B	1.2	n/a	1/6	0/1	)	0/0	0/0	0.8	0.9
B1	0.4	n/a	0/0	0/0	)	0/0	0/0	0.4	0.4
C	1.2	n/a	0/0	0/0	)	0/0	0/0	1.2	1.2
C1	0.7	n/a	0/0	0/0	)	0/0	0/0	0.7	0.6
D	2.1	n/a	1/1	0/0	)	0/0	0/0	1.9	1.7
D1	0.5	n/a	0/0	0/0	)	0/0	0/0	0.5	0.5
E	0.8	0.8	1/2	0/0	)	0/0	0/0	0.7	0.7
E1	9.0	n/a	0/6	0/0	)	0/0	1/5	5.3	2.9
F	2.3	n/a	0/2	0/0	)	0/0	0/1	2.2	1.9
F1	3.9	n/a	0/4	0/0	)	0/0	0/1	2.8	3.2
G	0.9	0.9	0/1	0/0	)	0/0	0/1	0.7	0.5
G1	2.7	n/a	0/1	0/0	)	1/1	0/1	1.6	0.3
H	1.1	n/a	0/0	0/0	)	1/1	0/0	0.8	0.7
H1	0.8	n/a	0/0	0/0	)	0/0	0/0	0.5	0.5
I	3.8	1.0	1/14	0/2	)	0/0	1/3	2.2	2.5
I1	1.1	n/a	0/0	0/0	)	0/0	1/1	0.3	1.1
J	0.4	n/a	0/0	0/0	)	0/0	0/0	0.4	0.0
J1	4.0	n/a	0/1	0/1	)	0/0	0/2	1.2	1.5
K	0.4	n/a	1/1	0/0	)	0/0	0/1	0.3	0.0
K1	1.9	n/a	0/0	0/0	)	0/0	0/0	1.2	1.0
L	1.2	n/a	0/1	0/2	)	0/0	0/1	0.9	0.0
M	3.1	n/a	0/1	0/0	)	0/0	0/1	1.4	3.1
N	0.6	n/a	0/0	0/0	)	0/0	0/1	0.6	0.0
O	2.1	n/a	0/0	0/3	)	0/0	1/1	0.8	1.3
P	2.0	n/a	0/0	0/0	)	0/0	0/2	0.8	0.0
Q	3.6	n/a	0/5	0/0	)	0/0	0/1	0.8	0.0
R	6.0	n/a	0/5	0/0	)	0/0	0/10	1.4	0.6
S	2.4	n/a	0/0	0/0	)	0/2	1/2	0.2	0.0
T	1.9	n/a	0/0	0/0	)	0/0	0/6	0.0	0.0
V	4.1	n/a	0/3	0/1	)	0/0	0/6	0.1	0.0
W	3.8	n/a	0/0	0/0	0	0/0	0/7	0.4	0.0
X	4.7	n/a	0/7	0/0	0	0/0	2/3	0.7	0.0
Y	1.3	n/a	0/2	0/0	0	0/0	0/1	0.2	0.0

Note:

/ # indicates number in ROW / number within 250 feet whe

Table 3

SEGMENTS USED IN ROUTES

Route	Segments
1	A-A1-E1-M-K1-W-Y
2	B-C1-D1-E1-M-K1-W-Y
3	B-C-G-H-L-G1-H1-J1-K1-W-Y
4	B-C-G-H-L-O-P-Q-T-V-Y
5	B-C-G-H-L-O-P-Q-S-W-Y

Table 4

ALTERNATIVE ROUTES SUMMARY

Description			Socioeconomic Features											Natural Resources							
Route	Length (miles)	Length Parallel Existing Line (mi)	Residences	Commercial Bldg	Schools	Churches	Barns/Sheds	Total Major Structures	Cemeteries	Parks/ Recreation Areas	Parcels	Roads	Trail Crossings	Potential Relocation Risk (%)	NWI Wetland (acres)	Streams	Forest (acres)	Architectural Resource	Archaeological Resources	Oil/Gas Wells	Previously Mined Areas (mi)	Current and Future Mining (mi)
1	22.2	2.6	2/31	1/3	0/0	0/0	0/0	3/34	0	0	131	18	1	30	0.7	15	155	0/0	0/0	0	10.6	10.1
2	21.5	0.0	1/15	0/1	0/0	0/0	0/0	1/16	0	0	116	15	1	30	0.7	16	168	0/0	0/0	0	10.7	9.0
3	20.0	0.9	1/14	0/4	0/0	0/0	0/1	1/19	0	0	95	20	5	10	0.4	17	173	0/0	0/0	0	9.4	6.5
4	20.7	0.9	1/23	0/4	0/0	0/0	0/0	1/27	0	0	115	21	5	50	0.1	22	219	0/0	0/0	0	7.3	4.5
5	20.7	0.9	1/20	0/3	0/0	0/0	0/0	1/22	0	0	115	23	5	50	0.1	23	209	0/0	0/0	0	7.8	4.5

Note:

/ # indicates number in ROW / number within 250 feet where appropriate
Cost approximation includes right-of-way, structure material, wire, installation, access roads and clearing.
Shaded area denotes preferred alternative.
Parcel numbers as determined through GIS data. Further information from 2011 ground surveys for Alternative 3 indicate that there are 84 parcels crossed by this route.

FIGURES

CASE NO: 2011-00295

CONTAINS

LARGE OR OVERSIZED

MAP(S)

RECEIVED ON: September 29, 2011

APPENDIX A
PUBLIC WORKSHOP INFORMATION

PUBLIC WORKSHOP INFORMATION

Public workshops were held on December 7, 2010 at the Hindman Settlement School in Hindman, and on December 8 at the Hazard Hotel in Hazard. Approximately 42 people attended the workshop in Hindman and 26 people attended the workshop in Hazard.

Public notification of the workshops was achieved through a combination of several methods, including direct mailing to landowners potentially affected by the project, an automated telephone invitation (Davox Dialer) directed to landowners in the project vicinity, advertisements in the local newspapers (Troublesome Creek Times and the Hazard Herald), and establishment of a project website.

The Davox Dialer system contacted 1,476 landowners. Approximately 1,166 landowners or 79 percent of those called were successfully contacted. As of May 31, 2011 a total of 123 viewers had accessed the project website.

This appendix contains copies of information provided in support of the workshops, including:

- Landowner Invitation Letter
- Davox Dialer Meeting Announcement Transcript
- Comment Sheet
- Project Fact Sheet
- Right-of-Way Acquisition Information Sheet
- Photographs of Public Workshops

AEP KENTUCKY POWER®

A unit of American Electric Power

Date: November 29, 2010

Landowner name and address merge
XXXXXXXXXXX
XXXXXXXXXXX
XXXXXXXXX

Dear Customer:

Kentucky Power Company (Kentucky Power) invites you to a public workshop to learn more about a new transmission line we are proposing in Knott and Perry Counties. The workshops are scheduled for Tuesday, Dec. 7, at the Hindman Settlement School in Hindman and on Wednesday, Dec. 8 at the Hazard Hotel in Hazard. Driving directions are provided on back of this letter. Both workshops will be held from 5:30 P.M. to 8:00 P.M.

At the workshops we will be seeking your input and providing information about the proposed transmission line, study segments and other matters related to the project. Pending all necessary government and regulatory approvals, the Company proposes to start construction on the line in 2012 and complete it by the end of 2014. Your input is valued to help us determine the best path for the transmission line. Several study paths, based on publicly available data, will be displayed for your inspection and comment. Our engineers and other representatives will be available to answer your questions and collect your feedback.

About the proposed line: We envision an approximately 24-mile, 138kV line extending from the Bonnyman Substation north of Hazard to the Soft Shell Substation north of the community of Soft Shell. The line will be built on steel H-frame structures approximately 100 feet in height and within a 100-foot right-of-way. Once completed, the line will improve overall electricity reliability and help Kentucky Power meet growing electricity demand.

The enclosed fact sheet will provide more information about the project. Also enclosed are a typical structure photograph and map with study segments. Additional information, including detailed segment mapping and a commenting procedure can be found at www.kentuckypower.com/go/bonnyman.

Please consider joining us at one of the two events. We seek to build the proposed line with as little impact and inconvenience to our customers as possible.

Thank you.

Michael G. Lasslo

Michael G. Lasslo, P.E.
Manager, Customer & Distribution Services
Kentucky Power Company
1400 E. Main Street
Hazard, KY 41701
Phone: 606-436-1330

DRIVING DIRECTIONS

Please consider joining us at one of the two following public workshops:

Tuesday, Dec. 7, 5:30 P.M. to 8:00 P.M.
HINDMAN SETTLEMENT SCHOOL
111 Hindman Settlement Road (Highway 160 South)
Hindman, KY 41822

From the intersection of State Route 15 & State Route 80 at Hazard, Drive East on State Route 80 to the Hindman Exit, approximately 16 miles, turn right at Shell-Mart onto Highway 160 South, approximately 2 miles, bare right at bottom of hill & go 1,000 ft., turn left onto State Route 160 South, approximately 1,000 ft., turn right & drive across new bridge, and building is on the left.

Wednesday, Dec. 8, 5:30 P.M. to 8:00 P.M.
RENO'S ROADHOUSE & HAZARD HOTEL'S BALLROOM
200 Dawahare Drive
Hazard, KY 41701

From the intersection of State Route 15 & State Route 80 at Hazard, go West on 80 approximately 1/2 mile, at traffic control signal turn right at Village Lane, go about 500 ft. and turn right up hill onto Dawahare Drive. Reno's is first building on left at top of hill. Watch turning into Reno's the turn can be dangerous.

Attached is a DAVOX message for distribution Wednesday evening, 12/01/2010, after 7:00 p.m. EST and again on Monday, Dec. 6 after 7:00 PM EST. It concerns public workshops Kentucky Power is holding to inform customers of a new transmission line proposed for their area.

When: Hindman, KY, Dec. 7, 5:30 PM - 8 PM and Hazard, KY, Dec. 8, 5:30 - 8 PM

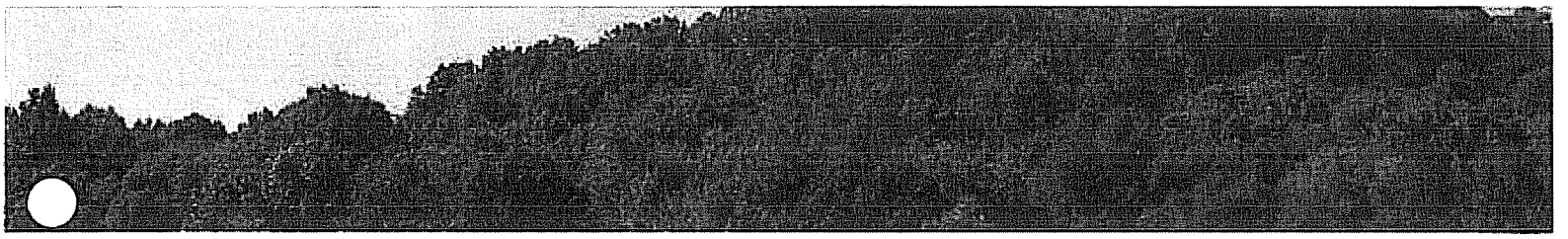
Where: Hindman Settlement School, Hindman and Hazard Hotel, Hazard

Why: To inform customers of transmission project

Notification: Via the following DAVOX message

This is an important message from Kentucky Power and is to advise you about two public workshops the company is holding in your area. The purpose of the workshops is to seek your input and provide information about a proposed electric transmission line project in Knott and Perry Counties. If you would like to learn more about the project, please join us Tues., Dec. 7, at the Hindman Settlement School, 111 Hindman Settlement Road, Hindman, or Wed., Dec. 8 at the Hazard Hotel, 200 Dawahare Drive, Hazard. Both meetings begin at 5:30 PM and last until 8 PM. More information about the project can be found at KentuckyPower.com. and in the Dec. 1 edition of the Troublesome Creek Times and Hazard Herald.

If you have any questions, please call our 24-hour Customer Solution Center at 1-800-572-1113.



KENTUCKY POWER COMPANY

COMMENT SHEET: BONNYMAN – SOFT SHELL 138KV TRANSMISSION PROJECT

You can submit comments on-line at www.kentuckypower.com/go/bonnyman, or mail to:

Kentucky Power
Attn: David H. Wright
Project Manager
P.O. Box 2021
Roanoke, VA 24022-2121

(Optional)

Name: _____

Address: _____

Telephone: _____ Email: _____ Date: _____

Comments: _____

KENTUCKY POWER COMPANY

FACT SHEET: BONNYMAN – SOFT SHELL 138KV TRANSMISSION PROJECT

What is being proposed?

Kentucky Power proposes to upgrade four substations and construct approximately 24 miles of new 138kV electric transmission line in Knott and Perry Counties to meet increasing electric demand and improve reliability for customers in the area. The proposed line connects Bonnyman Substation located north of Hazard to the Soft Shell Substation north of the community of Soft Shell and will be constructed on steel pole and H-frame structures approximately 100 feet in height within a 100-foot right-of-way. The company proposes to begin construction in 2012 and complete construction by the end of 2014.

Where will the new proposed transmission line be located?

The line will have terminal points at Bonnyman substation and Soft Shell substation. A number of alternate routes between these substations are being developed for consideration. The final route will be selected from these alternatives to include the most suitable route that minimizes the effect on the natural and human environment.

Why is the Project needed?

The Bonnyman-Softshell 138kV Transmission Project is vital to strengthening the electrical transmission network for Kentucky Power customers in Perry and Knott Counties. That network consists of 138kV and 69kV electric power lines that deliver electricity from its generation sources to area substations.

Over the years, the growth in electricity demand has reached a point where the existing transmission system has reached its capacity for reliable operation during certain electrical "contingencies." An electrical contingency is an unplanned interruption to a segment of the transmission network. The interruption could result from any number of causes including lightning, high winds, tree contacts or equipment failures.

When a segment of the transmission network is interrupted, the electricity that is delivered to the substations from that segment must be supplied by others on the network. If the contingency occurs when the electric power demand is at or near peak levels (such as in the extreme heat of summer or cold of winter), the remaining, operational segments of the network may become overloaded.

When this happens, it may become necessary to disconnect some substations to reduce the electrical load on the network. This could result in power outages that would inconvenience many of our customers. These actions would be required to protect the integrity of the remaining network, and to avoid cascading power outages that could affect much larger blocks of customers.

Implementation of this project will result in an upgrade of the transmission system serving your area. It will provide increased capacity to serve the current and anticipated future electrical loads and will greatly improve the ability of the transmission network to sustain electric supply to customers during contingency operations.

How will this Project help the local economy?

Reliable and adequate electricity supports current and future business/industry. Additionally, during construction, temporary benefits should be realized locally from food purchases, lodging sales, and the need for construction workers to fulfill the project requirements. Further, local qualified contractors may have the opportunity to bid on road building and vegetation clearing.

How does the transmission grid help to deliver electricity to my home or business?

The electricity delivery system is basically divided into two parts: transmission and distribution. The transmission and distribution systems work together like a network of roadways. Transmission lines can be described as multi-lane highways, transporting power at higher voltages across the region. Distribution lines are considered the two-lane roads and streets of the electric network. Substations along the highway serve as exit ramps, stepping down voltage from the transmission lines to the distribution lines so electricity can be delivered to homes and businesses in our towns and neighborhoods.

How will the final route be selected?

Alternative routes will be evaluated to assess their ability to avoid or minimize land use conflicts and impacts upon human, natural, visual, and cultural resources; avoid regulatory conflicts; and minimize construction, operation and maintenance issues. The most suitable route will be defined as the alternative that most successfully minimizes the effect on the natural and human environment while avoiding unreasonable design requirements and costs.

What regulatory approvals will be required?

After a rigorous siting process that includes assessing the environmental impacts and collecting public and agency input, routes are submitted to the KY Public Service Commission.

When will construction begin?

The Company proposes to begin construction in 2012 and complete construction by the end of 2014.

How will you acquire the property for this project?

Kentucky Power has two key objectives when routing its power lines: 1) routes should cause the least overall disturbance to people and the environment, which includes minimizing the number of homes in the corridor, and 2) property owners should be fairly compensated for any right-of-way easement that must be acquired.

To achieve these objectives for the proposed Bonnyman to Soft Shell power line, Kentucky Power carefully studied the area to be crossed by the proposed power line and developed a 500-foot study corridor that avoids as many homes as possible while minimizing other environmental impacts to the extent practicable. Home locations are identified from the air and ground in order to obtain up-to-date information for the power line siting process.

After the 500-foot corridor proposed by Kentucky Power is approved, Kentucky Power engineers and right-of-way agents work with the individual landowners to further refine the location of actual 100-foot right-of-way within the 500-foot study corridor. This is done to avoid as many homes and other identified "obstacles" as possible. It's also done, to the extent possible, to accommodate the landowners' preferences.

Typically, no clearing or construction is necessary outside the 100-foot wide right-of-way (except for construction of access roads and the occasional removal of tall trees that could compromise the power line) once the final location for the 100-foot wide right-of-way has been determined. The remainder of the 500-foot study corridor generally remains untouched.

The procedure that Kentucky Power follows to acquire power line right-of-way easements is to determine the fair market value before negotiating with the landowner on the purchase price for a right-of-way. The right-of-way agent assesses the fair market value of the easement to be obtained, plus any damage to the residue. Kentucky Power makes a genuine effort to negotiate with the land owner.

Nearly every negotiation results are a mutually acceptable price for the easement without going to court. However, when Kentucky Power and a landowner can't agree on price, the process of eminent domain can be used to determine the amount Kentucky Power pays for its easement. In that case, a circuit court jury will review evidence and establish the compensation due to the landowner.

How can I participate and comment on this Project?

The Company will have a series of workshops from 5:30pm through 8:00pm on December 7 and 8. On Tuesday, December 7, the Knott County public workshop will be located at the Hindman Settlement School. On

Wednesday, December 8, the Perry County workshop will be located at the Hazard Hotel/Reno's. A commenting procedure can be found at www.kentuckypower.com/go/bonnyman.

Isn't it true that exposure to electric and magnetic fields (EMF) cause health problems?

It's important to understand that EMF occurs wherever electricity flows. For example, a lamp that is turned on produces both an electric and magnetic field. Because our society relies heavily on electricity, people are almost constantly exposed to EMF throughout their daily environments at home, work and school. Many common household appliances, such as electric shavers or hair dryers, generate magnetic fields that can be tens of times higher than transmission line fields.

Questions about EMF and health first arose in the 1960s and 1970s with the use of higher transmission voltages in the U.S. Over the past several decades, numerous scientific studies have been conducted on EMF and health. The epidemiology studies taken as a whole, along with the laboratory studies on animals and cells, do not provide a reliable scientific basis to conclude that exposure to EMF from power lines increases the risk of cancer, including leukemia, or of other adverse health effects, in children or adults. Furthermore, there is no reliable scientific basis to conclude that exposure to power frequency EMF from this project will cause or contribute to adverse health effects in children or adults along the proposed route.

Kentucky Power Company

Bonnyman – Soft Shell 138kV Transmission Project

Right of Way Acquisition

Kentucky Power has two key objectives when routing its power lines: 1) routes should cause the least overall disturbance to people and the environment, which includes minimizing the number of homes in the corridor, and 2) property owners should be fairly compensated for any right-of-way easement that must be acquired.

To achieve these objectives for the proposed Bonnyman to Soft Shell power line, Kentucky Power carefully studied the area to be crossed by the proposed power line and developed a 500-foot study corridor that avoids as many homes as possible while minimizing other environmental impacts to the extent practicable. Home locations are identified from the air and ground in order to obtain up-to-date information for the power line siting process.

After the 500-foot corridor proposed by Kentucky Power is approved, Kentucky Power engineers and right-of-way agents work with the individual landowners to further refine the location of actual 100-foot right-of-way within the 500-foot study corridor. This is done to avoid as many homes and other identified "obstacles" as possible. It's also done, to the extent possible, to accommodate the landowners' preferences.

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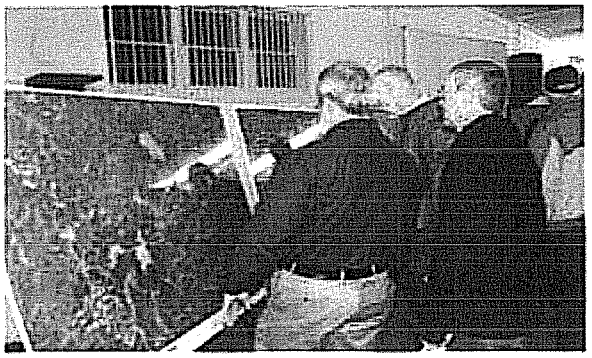
HINDMAN PUBLIC WORKSHOP PHOTOGRAPHS

DECEMBER 7, 2010



HINDMAN PUBLIC WORKSHOP PHOTOGRAPHS (Continued)

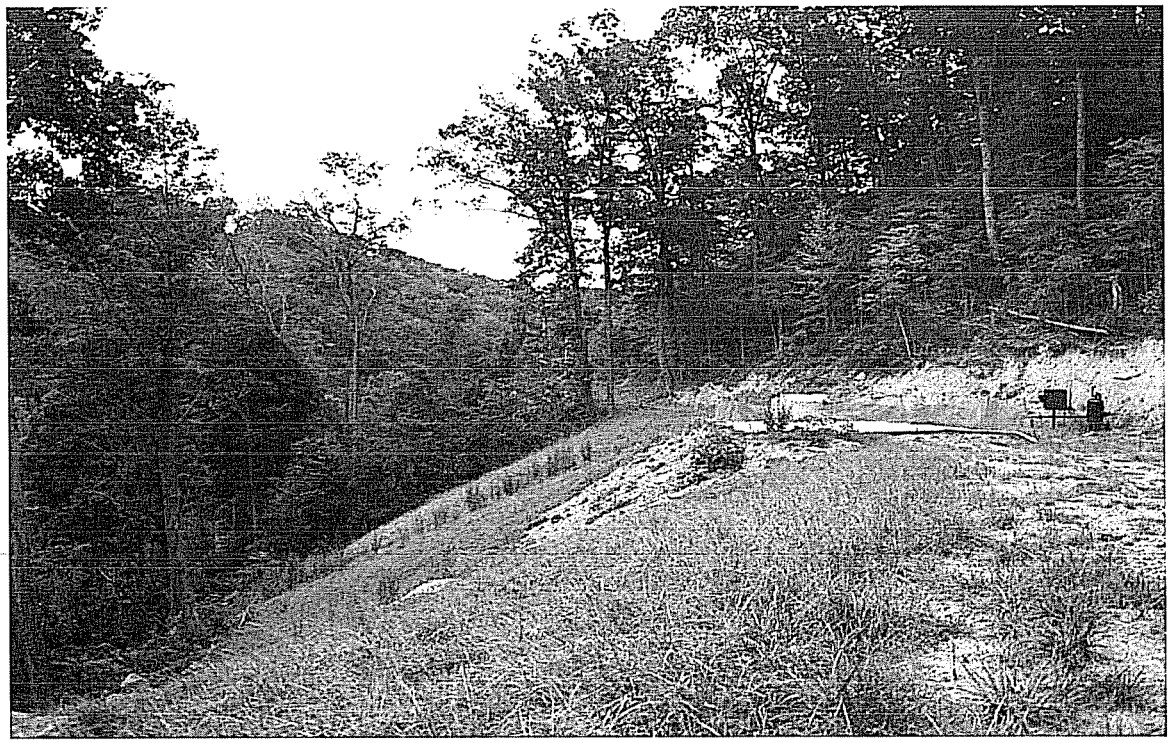
DECEMBER 7, 2010

HAZARD PUBLIC WORKSHOP PHOTOGRAPHS

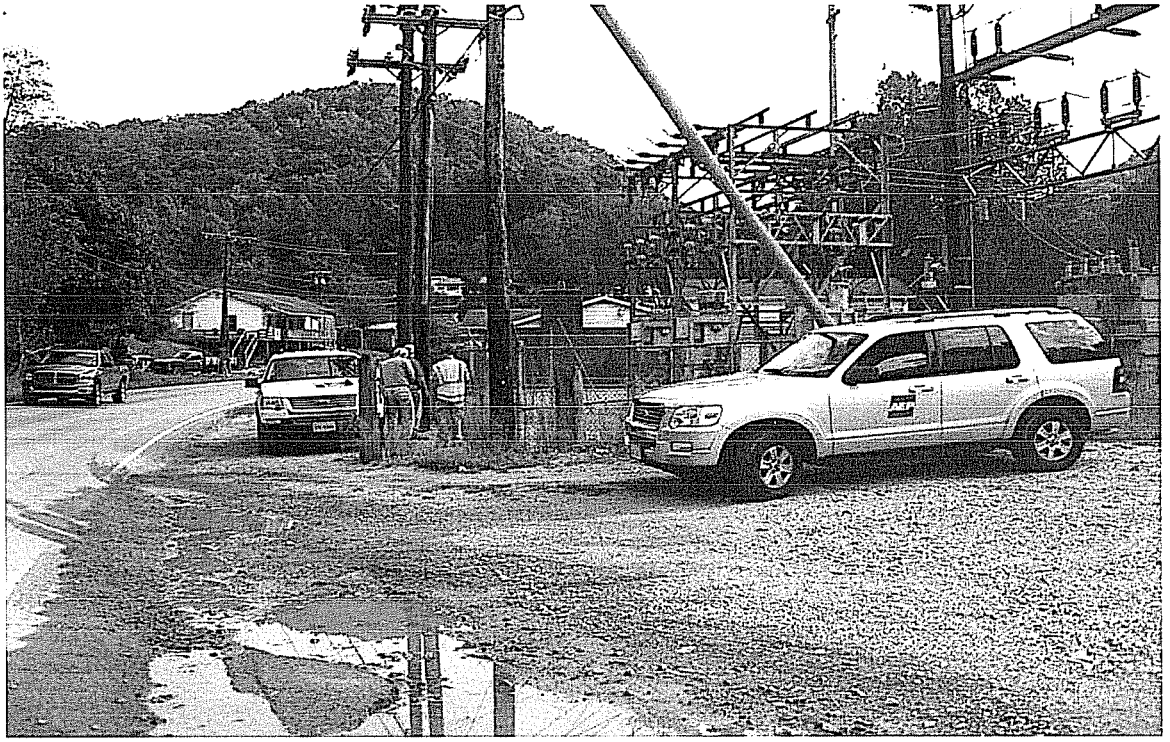
DECEMBER 8, 2010

APPENDIX B
CONTEXT PHOTOGRAPHS

Bonnyman Substation Expansion Site



Typical Gas Well Site and Area Topography



Bulan Substation

Troublesome Creek Valley

APPENDIX C
AGENCY COORDINATION LETTERS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

May 25, 2011

Mr. George T. Reese
Project Manager
GAI Consultants
385 East Waterfront Drive
Homestead, Pennsylvania 15120 - 5005

Re: FWS 2011-B-0330; Kentucky Power, Bonnyman-Soft Shell 138 kV Transmission Line Project, located in Knot and Perry Counties, Kentucky

Dear Mr. Reese:

Thank you for the correspondence of May 9, 2011 regarding the above-referenced project. The U.S. Fish and Wildlife Service (Service) has reviewed this proposed project and offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). This is not a concurrence letter. Please read carefully, as further consultation with the Service may be required.

The Service met with Mr. Anthony Baumert of GAI Consultants, Mr. Jonathan M. Magalski of American Electric Power (AEP), and Mr. Adam Mann of Environmental Solutions and Innovations (ESI) on February 17, 2011 to initiate section 7 consultation for the project. We determined that the Indiana bat (*Myotis sodalis*) is the only federally listed species that has the potential to be impacted by the proposed project.

We must advise you that collection records available to the Service may not be all-inclusive. Our database is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitats and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality.

Indiana bat

Summer roost and/or winter habitat for the endangered Indiana bat may exist within the proposed project site. Based on this information, we believe that: (1) forested areas in the vicinity of and on the project area may provide potentially suitable summer roosting and foraging habitat for the Indiana bat; and (2) caves, rockshelters, and abandoned underground mines in the vicinity of and on the project area may provide potentially suitable wintering habitat for the Indiana bat. Our belief that potentially suitable habitat may be present is based on the information provided in your correspondence, the fact that much of the project site and/or surrounding areas contain

forested habitats that are within the natural range of this species, and our knowledge of the life history characteristics of the species.

The Indiana bat utilizes a wide array of forested habitats, including riparian forests, bottomlands, and uplands for both summer foraging and roosting habitat. Indiana bats typically roost under exfoliating bark, in cavities of dead and live trees, and in snags (i.e., dead trees or dead portions of live trees). Trees in excess of 16 inches diameter at breast height (DBH) are considered optimal for maternity colony roosts, but trees in excess of 9 inches DBH appear to provide suitable maternity roosting habitat. Male Indiana bats have been observed roosting in trees as small as 5 inches DBH.

Prior to hibernation, Indiana bats utilize the forest habitat around the hibernacula, where they feed and roost until temperatures drop to a point that forces them into hibernation. This "swarming" period is dependent upon weather conditions and may last from about September 15 to about November 15. This is a critical time for Indiana bats, since they are acquiring additional fat reserves and mating prior to hibernation. Research has shown that bats exhibiting this "swarming" behavior will range up to five miles from chosen hibernacula during this time. For hibernation, the Indiana bat prefers limestone caves, sandstone rockshelters, and abandoned underground mines with stable temperatures of 39 to 46 degrees F and humidity above 74 percent but below saturation.

Because we have concerns relating to the Indiana bat on this project and due to the lack of occurrence information available on this species relative to the proposed project area, we would have the following recommendations relative to Indiana bats.

1. Based on the presence of numerous caves, rock shelters, and underground mines in Kentucky, we believe that it is reasonable to assume that other caves, rock shelters, and/or abandoned underground mines may occur within the project area, and, if they occur, they could provide winter habitat for Indiana bats. Therefore, we would recommend that the project proponent survey the project area for caves, rock shelters, and underground mines, identify any such habitats that may exist on-site, and avoid impacts to those sites pending an analysis of their suitability as Indiana bat habitat by this office.

2. We would also recommend that the project proponent only remove trees within the project area between October 15 and March 31 in order to avoid impacting summer roosting Indiana bats. However, if any Indiana bat hibernacula are identified on the project area, we recommend the project proponent only remove trees between November 15 and March 31 in order to avoid impacting Indiana bat "swarming" behavior.

However, if these recommendations cannot be incorporated as project conditions, then the project area may be surveyed to determine the presence or absence of this species within the project area in an effort to determine if potential impacts to the Indiana bat are likely. A qualified biologist who holds the appropriate collection permits for the Indiana bat must undertake such surveys, and we would appreciate the opportunity to approve the biologist's survey plan prior to the survey being undertaken and to review all survey results, both positive

and negative. If any Indiana bats are identified, we would request written notification of such occurrence(s) and further coordination and consultation.

If your project schedule requires the clearing of potential Indiana bat habitat (*i.e.*, trees) during the period of April 1 to October 14, you have two primary options for addressing impacts to Indiana bats. First, you can survey the project site as described previously, or you can enter into a Conservation Memorandum of Agreement (MOA) with the Service. By entering into a Conservation MOA with the Service, Cooperators gain flexibility in project timing with regard to the removal of suitable Indiana bat habitat. In exchange for this flexibility, the Cooperator provides recovery-focused conservation benefits to the Indiana bat through the implementation of minimization and mitigation measures as set forth in the Indiana Bat Mitigation Guidance for the Commonwealth of Kentucky. For additional information about this option, please notify our office.

It is our understanding that since our February, 2011 meeting AEP has elected to have ESI conduct a presence/absence survey and portal search/assessment in order to address our concerns regarding the potential project-related effects to the Indiana bat. The completion of section 7 consultation for the project is contingent upon the survey and assessment results.

Thank you again for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions regarding the information that we have provided, please contact James Gruhala at (502) 695-0468 extension 116.

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor

KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
TOURISM, ARTS, AND HERITAGE CABINET

Steven L. Beshear
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Marcheta Sparrow
Secretary

Dr. Jonathan W. Gassett
Commissioner

20 May 2011

George T. Reese, C.E.
Project Manager
GAI Consultants, Inc.
385 East Waterfront Drive
Homestead, PA 15120-5005

RE: Kentucky Power
Bonnyman-Soft Shell 138kV Transmission Line Project
Knott and Perry Counties, Kentucky

Dear Mr. Reese:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information pertaining to the subject project. The Kentucky Fish and Wildlife Information System indicates that no federally-listed species are known to occur within 250 feet of the preferred route. However, the potential exists for Indiana bat *(Myotis sodalis)* habitat to occur within the boundaries of the project. Since this project requires tree removal, the KDFWR recommends coordination with the US Fish and Wildlife Service Kentucky Field Office (502-695-0468) for consultation under the federal Endangered Species Act. The Indiana bat uses trees (dead, dying, or alive) as summer roosting habitat, with larger trees containing sloughing bark being the most suitable. Trees with dbh (diameter-at-breast height) greater than 16 inches are considered optimal, but trees with dbh as small as three inches have been documented as roosts sites.

The state-listed Henslow's Sparrow *(Ammodramus henslowii)* is known to occur within 250 feet of the project area. This species prefers open habitats dominated by thick, grassy vegetation. Fallow fields, pastures, reclaimed surface mines, and other unmowed grassy areas are considered habitat of varying quality. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

To minimize indirect impacts to aquatic resources, strict erosion control measures should be developed and implemented prior to construction to minimize siltation into streams and storm water drainage systems located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,

Dan Stoelb
Wildlife Biologist

Cc: Environmental Section File

Steven L. Beshear
Governor

Leonard K. Peters
Secretary
Energy and Environment Cabinet

Donald S. Dott, Jr.
Director

Commonwealth of Kentucky
Kentucky State Nature Preserves Commission
801 Schenkel Lane
Frankfort, Kentucky 40601-1403
502-573-2886 Voice
502-573-2355 Fax

May 20, 2011

George Reese
GAI Consultants, Inc.
385 East Waterfront Drive
Homestead, PA 15210

Data Request 11-147

Dear Mr. Reese:

This letter is in response to your data request of May 12, 2011 for the Bonnyman - Soft Shell 138 kV Transmission Line Project (Breathitt, Knott, Perry Counties) project. We have reviewed our Natural Heritage Program Database to determine if any of the endangered, threatened, or special concern plants and animals or exemplary natural communities monitored by the Kentucky State Nature Preserves Commission occur near the project area on the Carrie, Handshoe, Hazard North, Vest, as shown on the map provided. Please see the attached reports for more information, which reflect analysis of the project area with three buffers applied:

1-mile for all records – 7 records
5-mile for aquatic records – 13 records
5-mile for federally listed species – 9 records
10-mile for mammals and birds – 18 records

Alasmidonta marginata (Elktoe, KSNPC threatened, federal species of management concern) and *Etheostoma sagitta spilotum* (Kentucky Arrow Darter, KSNPC threatened, federal candidate) are known to occur within one mile of the proposed project. Aquatic species and habitats in the area are sensitive to increased turbidity, sediment, and other adverse influences on water quality. A written erosion control plan should be developed that includes stringent erosion control methods (i.e., straw bales, silt fences and erosion mats, immediate seeding and mulching of disturbed areas), which are placed in a staggered manner to provide several stages of control. All erosion control measures should be monitored periodically to ensure that they are functioning as planned. Our data are not sufficient to guarantee absence of endangered, threatened or sensitive species from the sites of proposed construction disturbance. We recommend that impacted streams be thoroughly surveyed by a qualified biologist prior to any in-stream

disturbance.

Corynorhinus rafinesquii (Rafinesque's big-eared bat, federal species of management concern, KSNPC special concern), *Myotis leibii* (Eastern small-footed myotis, federal species of management concern, KSNPC threatened) and *Myotis sodalis* (Indiana myotis, federally listed endangered, KSNPC endangered) are known to occur within ten miles of the project area. A thorough survey for these species should be conducted by a qualified biologist if suitable habitat will be disturbed. The survey should include a search for potential roost and winter sites, and a mistnetting census at numerous points within the proposed corridor, particularly in preferred summer habitat. Summer foraging habitats include upland forests, bottomland forests and riparian corridors. Suitable roost and winter sites include sandstone and limestone caves, rockhouses, clifflines, auger holes, and abandoned mines. In order to avoid impacts to bats, bottomland forests and riparian corridors, particularly near caves, should not be disturbed.

Silphium wasiotense (Appalachian rosinweed, KSNPC Special Concern) occurs near your project area and is listed by the United States Fish and Wildlife Service as a species of management concern. Appropriate habitat includes openings on forested slopes and roadsides at the base of forested slopes.

Corvus corax (Common Raven, KSNPC Threatened). This bird uses various habitats, but is most frequently found in hilly or mountainous areas, especially in vicinity of cliffs. Nests usually on cliff ledges or in coniferous trees, also on man-made structures

Accipiter striatus (Sharp-shinned Hawk, KSNPC special concern) can be found in a variety of habitats from semi-open farmland to woodland openings and borders. This species typically nests in areas of extensive forest, especially areas with some evergreen trees.

Ammodramus henslowii (Henslow's Sparrow, KSNPC special concern, federal species of management concern) is associated with fallow hayfields, ungrazed pastures with scattered small trees and tall weeds, grassland, and brushland.

I would like to take this opportunity to remind you of the terms of the data request license, which you agreed upon in order to submit your request. The license agreement states "Data and data products received from the Kentucky State Nature Preserves Commission, including any portion thereof, may not be reproduced in any form or by any means without the express written authorization of the Kentucky State Nature Preserves Commission." The exact location of plants, animals, and natural communities, if released by the Kentucky State Nature Preserves Commission, may not be released in any document or correspondence. These products are provided on a temporary basis for the express project (described above) of the requester, and may not be redistributed, resold or copied without the written permission of the Kentucky State Nature Preserves Commission's Data Manager (801 Schenkel Lane, Frankfort, KY, 40601. Phone: (502) 573-2886).

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many

natural areas in Kentucky have never been thoroughly surveyed, and new plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. We would greatly appreciate receiving any pertinent information obtained as a result of on-site surveys.

If you have any questions or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Sara Hines
Data Manager

SLD/SGH

Enclosures: Data Report and Interpretation Key

KNOTT COUNTY FISCAL COURT

Office of Judge Executive Randy Thompson

Judge Executive:
Randy Thompson

Deputy Judge:
Phillip Champion

P.O. Box 505
54 West Main Street
Hindman, KY 41822

Telephone: (606) 785-5592
FAX: (606) 785-0966

July, 12 2011

Mike Lasslo
Customer & Distribution Services Mgr.
1400 East Main
Hazard, Ky. 41701

Dear Mike,

After meeting with you and other representatives of Ky. Power concerning the construction of an additional transmission line from Knott County to Perry County, I have decided to offer this letter of support for the project. You have convinced me this new 138 KV transmission line will offer better, more reliable electric service to the people in Knott County, not only by offering a back-up source to the one service line feeding the county, but by providing for additional capacity in the event industry were to decide to locate in Knott County.

I have studied the maps of the proposed route options you provided and am aware that you have held public forums to allow people to gather information about the route and the upgraded service. Having received no complaints or concerns from Knott County residents, I am convinced the route you are recommending, generally following the highway 80 corridor, will have the least impact on residential properties and best avoids mineral resources plus offer the least impact of economic resources/areas of the county.

While I support the route of the proposed transmission line, I would be remiss if I did not mention, on behalf of all Knott County citizens, that I have concerns about the large recent rate increase to Ky. Power customers and the discussion of additional rate increases because of attack on the coal industry and coal fired power generating plants. I realize you are not the person who makes the decisions about electricity rates, however I feel compelled to mention my concerns whenever I correspond with any Ky. Power official. That being said, if this new transmission line will, in and of its' self, adds to the cost of electric service to the people and/or businesses of Knott County, I reserve the right to withdraw my support for this project.

I will say you have been very honest and forthright with the answers to questions I've asked concerning this project and I appreciate you candor.

Sincerely,

Randy Thompson
Knott County Judge Executive

Office of the County Judge – Executive
Denny Ray Noble

P.O. Drawer 210
HAZARD, KENTUCKY 41701
(606) 436-4513

July 18, 2011

Mike Lasslo
Customer & Distribution Services Mgr.
1400 East Main
Hazard, KY 41701

Dear Mike,

On behalf of myself and the Perry County Fiscal Court, I want to thank you and other representatives of KY Power for taking time and effort to explain the details for the construction of the additional transmission line from Knott County to Perry County. Your extensive work with this project and the assurance that it is going to be beneficial to Perry County has resulted in me writing this letter of support. After meeting with you and KY Power representatives, I am convinced this new 138 KV transmission line will improve Perry County's economic stability and viability by improving electric reliability.

Upon obtaining the maps of the proposed route options you provided, I have studied them thoroughly, and am aware that you held public forums to allow people to gather information about the route and the upgraded service. With that said, my office has not received any complaints or concerns from Perry County residents, therefore I am convinced the route you are recommending, generally following Route 80, will have little impact on residential properties and best avoids mineral resources.

For these reasons, I support KY Power's Preferred route and project and urge that a Certificate of Public Convenience and Necessity be issues as soon as possible.

Sincerely,

Denny Ray Noble
Perry County Judge Executive

FRASURE CREEK MINING, LLC.
P. O. Box 100, Ary, Kentucky 41712-0100
Fax Transmission (606) 251-3776

May 05, 2011

Ms. Vickie Stone
Kentucky Power Company
3249 North Mayo Trail
Pikeville, Kentucky 41501

Re: Bonnyman – Soft Shell 138 kV Transmission Project

To Whom It May Concern:

Kentucky Power Company is proposing a 20 mile 138 kV transmission line in Knott and Perry Counties to meet the increasing electric demand and improve reliability for customers in the area.

During route development, Kentucky Power worked extensively with Kentucky River Coal Property as well as their coal lessee, Frasure Creek Mining, LLC., to minimize impacts on our properties and coal reserves and thus avoiding to extent practicable future line relocations.

Additionally, the electrical system improvement project will benefit our Lessees' operations by providing reliable and adequate electricity to support current and future business/industry.

For these reason, Frasure Creek Mining, LLC. supports Kentucky Powers' Preferred Route and proposed project and urges that a Certificate of Public Convenience and Necessity ("CPCN") be issued as soon as possible.

If you have any questions or require any additional information, please contact Gary M. Ridings at (606) 251-3884, Extension Number 4 or his cellular telephone number at (606) 794-4442, or e-mail him at gary.ridings@essar.com.

Sincerely,

Larkin Hoskins
Vice President of Kentucky Operations
Frasure Creek Mining, LLC.

KENTUCKY FUEL CORPORATION

PO Box 130
189 Fourmile Branch
Mousie, KY 41839
(606) 946-3100

May 5, 2011

Vickie Stone
Kentucky Power Company
3249 North Mayo Trail
Pikeville, Kentucky 41501

RE: Bonnyman - Soft Shell 138 KV Transmission Project

Kentucky Power is proposing a 20 mile 138 KV transmission line in Knott and Perry Counties to meet the increasing power demand and improve reliability for their customers in the area.

During route development, Kentucky Power has worked extensively with Kentucky Fuel Corporation to minimize impacts on our properties and coal reserves and thus avoiding to extent practicable future line locations.

Additionally, the electrical system improvement project will provide a reliable and adequate electricity to support all current and future business and industry along the line.

For these reasons Kentucky Fuel Corporation supports Kentucky Power's Preferred Route and proposed project and asks that a Certificate of Public Convenience and Necessity ("CPCN") be issued as soon as possible.

Sincerely,

Marc Merritt
Vice President of Operations
Kentucky Fuel Corporation

KENTUCKY RIVER PROPERTIES LLC
300 Black Gold Boulevard, P.O. Box 269
Hazard, Kentucky 41702-0269

Phone:(606) 439-4518
Fax:(606) 436-5375

May 4, 2011

Ms. Vickie Stone
Kentucky Power Company
3249 North Mayo Trail
Pikeville, Ky 41501

RE: Bonnyman - Soft Shell 138 kV Transmission Project

Dear Ms. Stone:

Kentucky Power is proposing a 20 mile 138 kV transmission line in Perry and Knott Counties to meet increasing electric demand and improve reliability for customers in the area.

During route development, Kentucky Power has worked with Kentucky River Properties as well as our coal lessees ICG, Essar Minerals and TECO Coal to minimize impacts on our properties and coal reserves and thus avoiding to extent practicable future line relocations.

Additionally, the electrical system improvement project will benefit our Lessees' operations by providing reliable and adequate electricity to support current and future mining, as well as the rest of the business community.

For these reasons, Kentucky River Properties supports Kentucky Power's preferred route and proposed project and urges that a Certificate of Public Convenience and Necessity ("CPCN") be issued as soon as possible.

Sincerely,

Danny S. Maggard, PE LS
Chief Engineer

DSM/ps

ARCH COAL INC., (FORMERLY ICG) LETTER

Letter of support is pending. Former owner, ICG, expressed support but was recently acquired by Arch Coal, Inc., and correspondence has been delayed. ICG is a major mineral lessee traversed by the proposed transmission line. Kentucky Power worked extensively with ICG in designing the line route to avoid future land use conflicts.