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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION
CASE NO. 2013-00291

HAROLD BARKER;)	
ANN BARKER; and)	
BROOKS BARKER,)	
COMPLAINANTS)	
V.)	COMPLAINANTS'
)	POST-HEARING BRIEF
EAST KENTUCKY POWER)	
COOPERATIVE, INC.,)	
DEFENDANT)	

* * * * *

Come the Complainants, **HAROLD BARKER, ANN BARKER and BROOKS BARKER**, by counsel, and for their post-hearing brief in the above-styled action, state as follows:

Typically, a utility must obtain a certificate of public convenience and necessity from the Public Service Commission (PSC) before constructing an electric transmission line such as the one at issue here. Specifically, KRS 278.020(1) provides, in relevant part:

No person, partnership, public or private corporation, or combination thereof shall commence providing utility service to or for the public or begin the construction of any plant, equipment, property, or facility for furnishing to the public any of the services enumerated in KRS 278.010¹, except...ordinary extensions of existing systems in the usual course of business, until that person has obtained from the Public Service Commission a certificate that public convenience and necessity [CPCN] require the service or construction.

Contained within the general rule requiring a CPCN is an exception for "ordinary extensions of existing systems in the usual course of business," a concept the General Assembly sought to

¹ KRS 278.010(3)(a) defines the services provided by a utility to include "[t]he generation, production, *transmission*, or distribution of electricity to or for the public, for compensation, for lights, heat, power, or other uses." (emphasis added)

clarify in 2004 as it relates to transmission lines by enacting KRS 278.020(2) which, in pertinent part, states:

For the purposes of [KRS 278.020], construction of any electric transmission line of one hundred thirty-eight (138) kilovolts or more and of more than five thousand two hundred eighty (5,280) feet in length shall not be considered an ordinary extension of an existing system in the usual course of business and shall require a [CPCN]. However, ordinary extensions of existing systems in the usual course of business not requiring [a CPCN] shall include: (a) the replacement or upgrading of any existing electric transmission line....

Simply put, a transmission line project can only qualify as an “ordinary extension”, and thereby avoid the CPCN process, under the following circumstances:

- (1) The transmission line to be constructed will carry less than 138 kilovolts; or
- (2) The transmission line to be constructed will be 5,280 feet or less in length; or
- (3) The transmission line to be constructed will involve the replacement or upgrading of an existing transmission line. ²

In the matter now before the PSC, Defendant East Kentucky Power Cooperative Inc. (EKPC) may first seek shelter under option (3) by contending that its Smith-Hunt-Sideview Transmission Line Project was a mere replacement or upgrade of the existing 69kV transmission line with a better, more modern, version. Yet this position would seem to be at odds with the plain language of KRS 278.020(2) which specifically excludes a 138kV (or larger) line from being characterized as an ordinary extension. To take EKPC’s view eviscerates the 2004 legislation and substitutes in its place an *ad hoc* process controlled almost exclusively by the utilities. Indeed, the PSC impliedly rejected such an interpretation of the law in 2005 by opining thusly: “[a] 2004 amendment to KRS 278.020 authorized the [PSC] to regulate the

² KRS 278.020(2) recognizes other exceptions to the CPCN process not applicable here.

construction of transmission lines that have a capacity of at least 138kV... .” In the Matter of: An Assessment of Kentucky’s Electric Generation, Transmission and Distribution Needs, 243 P.U.R. 4th 374 (Ky. P.S.C., September 15, 2005).

A review of the undisputed facts of this case reveal why the Smith-Hunt-Sideview project should not be deemed a “replacement” or “upgrade”. First, the previous facility was only a single-circuit 69kV line. Assuming *arguendo* that the new 138kV-capable line was a replacement or upgrade of the former line, which the Barkers dispute, the *other* line involved in the project (the 345kV circuit) was not replacing or upgrading anything; it was simply new construction that, of its own accord, required EKPC to obtain a CPCN before commencement unless it fell below the voltage or linear distance minimums -- but it clearly did not.

As for the 138kV circuit, EKPC concedes this line deviates nearly 7,000 feet at the Hunt substation, and additional footage elsewhere. (direct testimony of Mary Jane Warner, pp. 11, 12). It also crosses the voltage threshold and thus cannot qualify as an “ordinary extension” on that basis either. The issue then becomes, on these undisputed facts, whether the 138kV line can be considered a replacement or upgrade even though it is disqualified as an ordinary extension by objective measures. On this point, EKPC attempted to confuse the issue through the written testimony of Mary Jane Warner who stated “[w]hether any given segment of a new transmission line is a replacement or an upgrade of an existing transmission line depends upon a comparison of the nature and purpose of the lines and not a strict determination of whether the right-of-way has changed.” (direct testimony of Mary Jane Warner, p. 11, lines 11-15). However, neither Ms. Warner nor any other EKPC witness ever elaborated on the meaning of “nature and purpose” thereby creating the impression they are synonyms for “replacement or upgrade” and, as such, provide no useful analysis of the subject.

As noted above, a more helpful approach would be an interpretation of KRS 278.020(2) as reserving a utility's use of the replacement or upgrade exception to the CPCN requirement for those instances involving less than 138 kilovolts and no more than 5,280 linear feet because, to do otherwise, gives utilities unlimited discretion and allows them to engage in the kind of obfuscation evident here.

That EKPC is not aided by scenario (1) above cannot be seriously debated.

The last possible refuge for EKPC is item (2) which exempts transmission line projects with a length of 5,280 feet or less from the CPCN process. While this was an area which engendered much discussion in the parties' written testimony, in their written questions, and in the oral testimony provided during the hearing, the fact that the new line deviates more than 5,280 feet from its predecessor's right-of-way was firmly established even by EKPC's own submissions, as referenced above and discussed more fully below.

Accordingly, the EKPC project did not qualify as an "ordinary extension", meaning EKPC should have sought a CPCN before building the 345kV/138kV line.

The discussion below is provided by the Barkers' experts to address the technical issues presented by this case.

It has been over eight years since the Barkers were first made aware of the Smith-Hunt-Sideview Transmission Line Project and attended an Open House on the subject conducted by EKPC. At the Open House, the Barkers were told that EKPC would be constructing a double-circuit 345kV/138kV transmission line in place of what was then a 69kV single-circuit transmission line which crossed the Barkers' property, and that EKPC would be acquiring an additional 50 feet of new right-of-way for this purpose. At this meeting, the Barkers informed

that the exact route of the new line through their property and number of new poles to be erected had not yet been determined. No one was present to address or explain the electromagnetic field (EMF) concerns raised by the Barkers and there was no mention of any agencies such as the PSC, USDA-RUS, or any other entities to contact if there were any questions or issues involving the project or its impact on landowners. Nor did the questionnaire distributed at the Open House by EKPC, which was completed and returned by the Barkers, make any mention of whom to contact with concerns.

EKPC's Knowledge of Exact Route Prior to the Open House

1. September 2005, letter to the U.S. Fish and Wildlife Service stating that EKPC had surveyed for the substation and route – Page 77, Gilpin Environmental Report.
2. October 31, 2005 -EKPC published a study titled Justification of the J.K. Smith Sideview 345kV Line.
3. October 7, 2005 –Letter from EKPC to the PSC seeking a staff opinion for construction of a 345kV/69kV transmission line. **SEE ATTACHEMENT NO. 1**

Letter from EKPC dated October 7, 2005

This letter by EKPC requesting a staff opinion from the PSC for the Smith-Hunt-Sideview transmission line is crucial because it created all forthcoming problems associated with this case. The letter erroneously stated “EKPC proposes to replace and upgrade this line with a double circuit 345kV/69kV electric transmission line”. In all other disclosures -- the Open House notification, the Winchester Sun newspaper notice, the Gilpin Group Report, and information sent to USDA-RUS -- EKPC correctly described the project as involving a new 345kV/138kV line. More recently, on page 5 of Mary Jane Warner's direct testimony filed

herein on June 2, 2014, she acknowledged that EKPC in fact constructed a 345kV/138kV double-circuit transmission line.

Details of EKPC's 345kv/138kv Transmission Line Project

The original transmission line that ran from the Sideview Substation to the J. K. Smith Generating Station was a 69kV single-circuit line which was taken out of service and completely removed. Next, a new 138kV single circuit line was installed on the existing 69kV transmission line right-of-way from the Sideview Substation to the J. K. Smith Generating Station. In addition, a new dual-conductor, single circuit, 345kV transmission line was installed on the same transmission line pole structures for most of the way. This new transmission line runs from the new North Clark substation, installed as part of this project near the North Clark Generating Station, to the J. K. Smith Generating Station, a distance of more than 18 miles. A portion of the new 345 kV line was installed on new right-of-way while the majority of this line utilized the existing 69 kV right-of-way.

The above described transmission line crosses the Barker farm. The Barker house was built partly encroaching upon the right-of-way of the original 69kV transmission line. When the new transmission line was built, EKPC failed to move this new transmission line to the east by a few feet in order to correct this encroachment.

Throughout the progression of the project, EKPC ignored the Barkers' health concerns with respect to EMF. As early as the Open House on November 10, 2005, the Barkers expressed these concerns but they were dismissed. Of particular frustration is the fact that EKPC had the opportunity to remedy the EMF concerns at minimal cost to the project but chose to ignore the issue.

Definitions as they Relate to Transmission Lines

The following definitions are provided from an Electrical Engineer John Pfeiffer's perspective since KRS 278.020 does not explicitly contain such definitions:

1. **New Transmission Line:**

A transmission line installed on a new right-of-way that is either privately owned property or property owned by the electric utility consisting of one or more circuits.

2. **Rebuilt Transmission Line:**

The removal of an existing transmission line, replacing it with a new transmission line of same or increased circuit capacity and the same or increased voltage. This transmission line has the same terminal points as the original transmission line and is sited on the originally located right-of- way.

3. **Upgraded Transmission Line:**

A transmission line that has its capacity increased by increasing the voltage of the line requiring its insulators as well as other hardware to be replaced due to the increase, and/or a line whose conductors are replaced with larger conductors or additional conductors which are installed in parallel with the existing conductors. This transmission line has the same terminal points as the original transmission line and is sited on the originally located right-of- way.

4. **Relocation (Deviation) of a Transmission Line:**

A transmission line that has been removed from the existing right-of-way and installed on a new right-of-way. This transmission line has the same terminal points as the original transmission line.

Interpretation of KRS 278.020

LEGISLATIVE RESEARCH COMMISSION, Siting of Electric Transmission Lines Research Report No. 348, Chapter 3 Kentucky's Certification Process for Electric Transmission Lines states, Page 34:

“Review of a Specific Route, Moving the Centerline after a CPCN Is Granted PSC requires that an application for a CPCN for a new transmission line specify the exact route of the proposed line and the location of its centerline.

At first, there was some objection by utilities to PSC's review of the specific route proposed. Utilities argued that only the proposed corridor should be part of the application. They maintained that compliance with federal regulations may require an adjustment of up to a ½-mile wide corridor after a utility obtains a CPCN. Thus, PSC's role is only to review the need and duplication issues rather than the specific route.”

The PSC addressed this issue in 2004. A CPCN applicant is required by 807 KAR 5:120, sec. 2(2) to submit a map showing the location of the proposed transmission line centerline. That regulation also incorporates 807 KAR 5:001, sec. 9(2), which requires that an application contain a full description of the proposed route. The PSC's reasoning for requiring utilities to provide exact route information to obtain a CPCN is that KRS 278.020(8) requires that affected landowners be able to intervene. In order for such landowners to be able to determine how they are affected and whether they should intervene in an application, they must know the exact proposed location of the line and the location of poles and towers. (Commonwealth of Kentucky. Public Statement Section 7).

The PSC allows a transmission owner to move the centerline of a transmission route after it has been approved if the move is no greater than 500 feet in either direction of the approved route (a 1,000-foot corridor), the move does not shift the line or its right-of-way onto the property of a different landowner, and the property owner who is subject to the move agrees in writing to the requested move (PSC Case No. 2006-00463, Sept. 19, 2007).

Issues:

EKPC provided erroneous information to the PSC by presenting inaccurate data with respect to the need to undertake the CPCN process. EKPC later provided inaccurate technical data. This appears to have originated due to EKPC working on a number of major construction projects simultaneously and trying to cut corners wherever it could.

In addition, EKPC failed to address the Barkers' concerns with respect to the health risks associated with EMF.

EKPC used the cost of Smith-Hunt-Sideview, which was not subject to PSC scrutiny, as part of its application for a rate increase in 2008. (See EKPC response to Barkers' written question no. 67; PSC case no. 2008-00409.) This rate increase is exacerbated by the fact EKPC stated it has no intention to run more than 69,000 volts on a 138kV-designated line. Had a proper CPCN process been observed here the financial propriety of the project would have been fully explored which may have resulted in a finding that it was unnecessary or otherwise approving it so as to avoid a greater expense to ratepayers.

Remedy sought:

Relocate the 345kV/138kV transmission lines as requested by the Barkers.

Discussion:

On October 7, 2005 Mr. Sherman Goodpaster wrote the PSC requesting a waiver of the CPCN process based upon his statement “that the total length of both of these sections of new centerline will be less than 4000 feet.” Public notices for the Open House on November 10, 2005 show the North Clark Substation and J.K. Smith Generation Station as part of the new centerlines.

A) North Clark Substation new centerline equaled **3,755 feet** of new transmission line

B) J.K. Smith Generating Station equaled **3,997 feet** of new transmission line

138 kV Transmission Line:

The original 69 kV line constructed in the 1950’s was completely removed and then replaced with new conductors, poles, and other hardware which are rated at 138kV. The proposed construction of this 138kV rated transmission line was never mentioned by EKPC in the October 7, 2005 letter to the PSC requesting a staff opinion for the approval to build the transmission line that exists today. EKPC stated they were going to construct a 69kV transmission line in the letter. EKPC currently operates this 138 kV rated transmission line at 69kV, with no stated intentions of operating such line at 138kV in the near future.

The 138kV rated line begins at the Sideview Substation and meets the 345 kV transmission line as shown in EKPC Exhibit 1-A-2; junction of red and green lines. --- **SEE ATTACHMENT NO.2**

A portion of this new 138 kV transmission line was also relocated requiring new right-of-way. 6,969 feet of the new 138 kV rated transmission line was moved to the east by a

distance of 1,198 feet and this relocation resulted in 6,969 feet of new right-of-way that encompassed both the Foley and Shearer properties. Refer to EKPC Exhibit 1-A-1.

Of the 6,969 feet of new right-of-way EKPC claims that only 559 feet was new right-of-way with 6,410 feet being **relocated** transmission line. This relocation of transmission line exceeds 500 feet and resulted in shifting the transmission line on property owned by two different parties.

By regulation, a new amendment to a CPCN would be required if one already existed. (In theory this could also be extended to require a CPCN if one had originally not been needed for a project or the need for one had been waived.) See LEGISLATIVE RESEARCH COMMISSION, Siting of Electric Transmission Lines Research Report No. 348, Chapter 3 Kentucky's Certification Process for Electric Transmission Lines states, Page 35.

Barker Request 15. Please refer to p. 11, lines 21-23, through p. 12, line 1, of Ms. Mary Jane Warner's testimony. How was it determined that only 559 feet of the 6,975 feet of deviation at the Hunt Substation was not a replacement or upgrade?

Response 15. Please refer to lines 8 — 19 on page 11 of Mary Jane Warner's testimony which states the following: "A deviation from the existing right-of-way only means that the new transmission line is physically located in a different location than the original line. Saying that a line deviates from the existing right-of-way does not necessarily mean that the deviating portion of the transmission line is somehow a new transmission line. Whether any given segment of a transmission line is a replacement or an upgrade of an existing transmission line depends upon a comparison of the nature and purpose of the lines and not a strict determination of whether the right-of-way has changed. The proximity of a deviation in right-of-way to the pre-existing right-of-way is one factor that could be taken into account in determining whether a project is a

replacement and upgrade project or a whole new construction project, but that cannot be the sole determinative factor." Only 559 feet of transmission line out of the 6,975 was not a replacement of an existing line.

This deviation, as Ms. Warner calls it, is clearly a relocation of the original existing 69kV transmission line built in the 1950s as stated above and the deviation is in excess of the 500-foot limit and results in the new transmission line deviation occurring on two properties.

Nowhere does KRS 278.020 state that the CPCN requirement depends upon a comparison of the nature and purpose of the new transmission line.

The 138kV rated transmission line next is routed to the J. K. Smith Generating Station. The 138kV line takes a separate path to the J. K. Smith Generating Station than the 345kV line. The 138kV line terminates on the east side of the J. K. Smith Generating Station whereas the 345kV transmission line terminates on the west side.

The maps immediately after pg. 71 shown in the Gilpin Report confirms the routing of the 345kV transmission line as being new line. To help confirm this contention, additional information can be found "SYSTEM IMPACT STUDY, GENERATION INTERCONNECTION REQUESTS #30-33, JK SMITH COMBUSTION TURBINES #8-12 AND CFB UNIT #1 PROJECT IN CLARK COUNTY, KENTUCKY, May 17, 2006,"

345 kV Transmission Line:

The new 345kV transmission line was installed on existing right-of-way that was expanded from 100 feet to 150 feet of right-of-way for the majority of distance from the North Clark Substation to the J. K. Smith Generating Station. This new 345kV transmission line deviates in two places from the path of the 138 kV rated transmission line. These deviations are

located at the new North Clark Substation/switchyard and at the J. K. Smith Generating Station Substation/switchyard. The purpose or intent of the 345kV line is different than that of the 138kV rated line and has different terminal points.

For some reason, the 3,997 feet of new transmission line at the J.K. Smith Generating Station has been eliminated from the sworn statements in the direct testimony of Mary Jane Warner. This is clearly new transmission line even though the majority of this 3,997 feet of line is on EKPC property. Nowhere in KRS 278.020 does it state that property owned by a utility company is exempt from the requirements of a CPCN process regarding the construction of a transmission line.

EKPC's Varying Claims of Right to Request a Waiver of the CPCN Process:

EKPC transmitted to the PSC and others various opinions stating different lengths of the new 345 kV transmission line that was part of the North Clark – J. K. Smith transmission line. The following table states the various documents and opinions of EKPC; some of which were sworn testimony.

Summary of Centerline Lengths:

October 7, 2005	Letter - Official EKPC Request for Waiver of CPCN Requirements	<4,000 Feet
March 1, 2006	Official EKPC Request to Fish and Wildlife Service	7,603 Feet
May 2006	Gilpin Environmental Report	14,697 Feet
October 10, 2013	Sworn Statement by EKPC - Answers to the Formal Complaint, dated 9/26/2013	13,240 Feet
November 21, 2013	Sworn Statement by EKPC - Answers to the PSC Staff's Initial Request for Information No. 1	10,739 Feet
June 2, 2014	Sworn Statement – Direct Testimony of Mary Jane Warner, P.E.	4,314 Feet

For some reason the 3,997 feet of new transmission line at the J.K. Smith Generating Station has been eliminated from the direct testimony of Mary Jane Warner as shown above. The Gilpin

report maps following pg. 71 shows that the J. K. Smith Generating Station section of line is new 345kV transmission line. Also as stated above the 138kV rated transmission line does not completely follow the 345 kV transmission line route.

KRS 278.020 provides the following:

However, ordinary extensions of existing systems in the usual course of business not requiring such a certificate shall include

- (a) The **replacement or upgrading** of any existing electric transmission line; or
- (b) The **relocation** of any existing electric transmission line to **accommodate construction or expansion of a roadway or other transportation infrastructure**; or
- (c) An electric transmission line that is constructed solely to serve a **single customer** and that will pass over no property other than that owned by the customer to be served.”

Nowhere does KRS 278.020 state that new transmission line construction on a electric utility’s property does not apply in the consideration of whether a CPCN should be obtained.

EKPC has proffered various explanations for their lack of accuracy in the above referenced documents. The variations appear to be several attempts to redefine the definitions of rebuilt, relocated, upgraded and new transmission lines and the requirements for meeting the letter but not the intent of KRS 278.020.

Encroachment of Right-of-Way

Various testimony has shown that the Barker house and attached garage encroaches upon the right-of-way of the original 69 kV transmission line. There is a question as to whether or not EKPC granted the Barkers’ permission to build the house at its present location. There is no

written record one way or another. However, this encroachment should have been corrected at the time of the construction of the new 345kV/138kV rated transmission line as required by the RUS.

RUS Bulletin 1724E-203 Guide for Upgrading RUS Transmission Lines states:

3.4.2 “A survey..... An inventory of any changes to the physical features along the centerline should be recorded with corresponding elevations. Measurements should also include conductor attachment heights, obstructions, **right-of-way encroachments**, and check of span lengths. All wire crossing heights should be measured during the field survey.”

3.4.3 Finally, the data should be analyzed to determine the optimal plan for improvement. Any changes made to the existing line must, as a minimum, comply with the latest edition of the NESC....”

EMF Concerns Expressed by the Barkers to the EKPC

The Barkers expressed concerns with respect to EMF health hazards from the very beginning of the 345 kV/138 kV North Clark – J. K. Smith transmission line project. EKPC has thwarted the Barkers ability to express those concerns and search for answers concerning power line EMF hazards.

On October 31, 2005 the Barkers received a notice of the Open House concerning the new 345kV/138kV transmission line. Ten days later on November 10, 2005 the Barkers attended the Open House to hear EKPC’s presentation on the new 345 kV/138 kV transmission line project. The Barkers only had this one opportunity to ask questions about the potential of health hazards associated with the 345 kV/138 kV transmission line and as stated earlier, no one was

present to address such hazards and concerns. The Barkers only had ten days to educate themselves and prepare for the Open House. This is clearly not the intent of the law

LEGISLATIVE RESEARCH COMMISSION, Siting of Electric Transmission Lines
Research Report No. 348, Chapter 2 Pg.21 Kentucky's Certification Process for Electric
Transmission Lines states:

“In 2004, Senate Bill 246 amended KRS 278.020

“Senate Bill 246 also provided for a forum in which individuals affected by the proposed construction can play an active role in the CPCN process. Individuals can request that PSC hold a public hearing in the county where the line would be located. If an individual wishes to play a more formal role, he or she can request to intervene in the case, which grants the person full rights of a party in the case.”

Deceptive Practices by EKPC

EKPC has in some cases tried to deceive the Barkers and the Barkers' experts by making false or deceptive statements in written and spoken form in both sworn and non-sworn statements. This is illustrated below.

Data Provided by Dr. Dolloff:

Barker Request 35.

The electrical data for the new 345kV/138kV transmission line provided to John Pfeiffer by Dr. Dolloff on February 27, 2012 was as follows:

Data provided by Dr. Dolloff: (a sample)

69kV - Dale Date/Time	MW	MVAR	MVA	sum of 2 phases Amps
19-Jan-12 07:00:00	29.72816	-3.303750515	29.91117	750.8357881
19-Jan-12 07:01:00	29.69754	-3.323134661	29.88289	750.1259025
19-Jan-12 07:02:00	29.66692	-3.342518806	29.85463	749.4164011
19-Jan-12 07:03:00	29.63631	-3.361902952	29.82638	748.7073801

With respect to the electrical data for the new 345 kV/138 kV rated transmission line, data was provided by Dr. Dolloff to John Pfeiffer, the data contained date/time, MW, MVAR, MVA and Amps with as heading listing the data for the 69 kV transmission line.

Dr. Dolloff opined with a lengthy discussion of total current and complex power but failed to answer the questions about how the data was represented. The heading of the data in each spreadsheet listed voltage such as 69kV, MW, MVAR, MVA and Amps.

It's Dr. Dolloff's professional opinion that the term listed in the spreadsheet as Amps refers to Total Amps and not Line amps.

Dr. Cotts:

EKPC's expert Dr. Cotts did not follow Dr. Dolloff's example in how he listed similar data. Refer to EKPC Response to Information Request dated June 23, 2014

Response 46. Please see pages 2 through 7 of this response. Also note that Amperage calculations are provided assuming balance currents on all phases, and are reported for a single phase, not the sum of all three phases as in some previous responses

Date/Time	JK Smith- N. Clark MW	JK Smith- N. Clark MVAR	J.K. Smith- N. Clark MVA	Amps
5/22/2014 14:30	-17.000	-61.000	63.325	105.9723
5/22/2014 14:31	-10.900	-60.200	61.179	102.3813
5/22/2014 14:32	-20.100	-58.800	61.385	102.7257

Dr. Dolloff's Inaccuracy

Dr. Dolloff made a number of statements about accuracy in how data is to be presented. Yet, he failed to understand that when he listed in his data 69kV as the voltage that represents 69kV line-to-line voltage (69kV is a standard transmission line voltage as defined by the IEEE). He then listed current as Amps and states later in his testimony that the Amps he used referred to Total Amps and not Line Amps. When you express voltage and amps within the same reference it is important to express both voltage and amps within the same reference system i.e. Line-to-line voltage and line amps or line-to-ground voltage and Total Amps. To do anything else is misleading particularly when in the same data you refer to MVA. You cannot equate directly line-to-line voltage, MVA and total amps in an equation without first dividing the total amps by 3. Total Amps is a valid expression but is not used in sizing conductors or equipment and is generally not used. Thus, Dr. Dolloff's sworn testimony is incorrect.

Statements by Dr. Dolloff:

At the December 2008 meeting at the Barkers' house with Dr. Dolloff, the Barkers presented the issues to him resulting from the close proximity of their house to the new 345kV/138kV transmission lines. Dr. Dolloff was not surprised and was very aware of the side effects we were experiencing.

1. Getting Shocked—Dr. Dolloff acknowledged that transmission lines of this magnitude create large electric and magnetic fields and can induce a charge on metal objects creating the shocks received from vehicles.

2. Pace Maker Concerns and The Public—Dr. Dolloff acknowledged that high voltage lines can affect pacemakers and that EKPC is sensitive to these issues.

3. Safe Distances—Dr. Dolloff stated that it should not be a problem if one stays 100 ft. away from the edge of a 69kV transmission line easement and 150 ft. away from the edge of a 345kV transmission line easement.

This would indicate that EKPC had to know the hazards and side effects involved with a transmission line of this size and should have made adjustments to the easement which would have located the 345kV/138kV transmission lines a safe distance from our residence.

These statements above and the complete meeting with Dr. Dolloff and the Barkers can be reviewed on the cd included in the Barkers' direct testimony filed herein on April 25, 2014.

Statements by Mary Jane Warner:

Accuracy in Estimates:

Barker Request 16. Beginning on line 15 of Ms. Mary Jane Warner's testimony, she estimates the cost of the two options suggested by Mr. Pfeiffer for moving the segment crossing the Barkers' property to be \$69,000 and \$72,000, respectively. Please provide a detailed breakdown of how those figures were derived.

Response 16. The information below is from EKPC's actual costs for the North Section of the Smith — North Clark 345/69kv Double Circuit Transmission project:

	Material	Labor	Total
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Average Straight Line, 2 Pole Structure	\$23,687.17	\$16,075.79	\$39,762.96
Average Small Angle (0° - 7°), 2 Pole. Structure with 2 guy wires and 2 anchors	\$24,348.27	\$17,839.77	\$42,188.04
Average Medium Angle (7° - 45°), 3 Pole. Structure with 13 guy wires and 13 anchors	\$29,644.06	\$19,778.33	\$49,422.39
3 Phases of 2 bundle 954 ACSR conductor for 345kv / per foot	\$10.69	\$16.54	\$27.23
3 Phases of single 795 ACSR conductor for 69kv / per foot	\$5.19	\$8.27	\$13.46
7no8 Overhead Ground Wire / per foot	\$0.34	\$2.72	\$3.06
470" Fiber Optic Cable / per	\$0.91	\$1.22	\$2.13

Ms. Warner used hardware prices in her sworn testimony which were considerably higher than the sworn testimony of EKPC employee Ricky L. Drury in his Response to Information Request PSC Request No. 6.

Ms. Warner's installed cost per average 2 pole structure - \$39,762.96

Mr. Drury's installed cost per average 2 pole structure for materials and labor for average 85 foot to 100 foot poles- \$22,564.00

On another note, Ms. Warner acknowledged EKPC's response to a written question posed by the PSC was in error when claiming that EKPC did not pay the Foley estate for the new easement across the estate's land. (direct testimony of Mary Jane Warner, p. 14, lines 10-14) Her acknowledgement came only after the Barkers stated in their written testimony that the Foley estate had in fact been paid. This is yet another example of how the current procedure before the PSC has allowed the Barkers to expose the facts. On another occasion, EKPC admitted without prompting that it should have notified the PSC of EKPC's intention to move the line on the Foley estate property. Such an attack of conscience would never have occurred without the instant proceeding.

Other factors

Barker Request 14a. Please list the other factors used to distinguish a "replacement and upgrade" project from "a whole new construction" project.

Response 14a. Objection.

EKPC objects to this request on the basis that it calls for a legal conclusion. Without waiving said objection, there is no statutory enumeration of factors that may be employed to determine whether a project is a replacement or upgrade of an existing line. Accordingly, common sense and professional engineering judgment must provide the appropriate factors on a case specific basis. **These would include, at a minimum, a consideration of the nature and purpose of the lines, their location, their relation to the larger electric transmission grid, and the relative age of the existing lines.** Again, however, it is impossible to provide a set of specific factors that should always be taken into account for every project. KRS 278.020's language indicates that there is a fair amount of subjective judgment that must be applied.

KRS 278.020 states the following:

However, ordinary extensions of existing systems in the usual course of business not requiring such a certificate shall include:

- (a) The replacement or upgrading of any existing electric transmission line; or
- (b) The relocation of any existing electric transmission line to accommodate construction or expansion of a roadway or other transportation infrastructure; or
- (c) An electric transmission line that is constructed solely to serve a single customer and that will pass over no property other than that owned by the customer to be served.”

Nowhere does KRS 278.020 state any of the following:

- “a consideration of the nature and purpose of the lines”
- “their relation to the larger electric transmission grid,”
- “the relative age of the existing lines”

The requirements of KRS 278.020 are legal requirements and do not require engineering judgment with respect to the determination of the need of a CPCN. Engineering judgment is required in siting the line but not in the determination of a CPCN.

Statements by EKPC’s Experts:

Dr. Cotts

Dr. Cotts made an assumption that the 138 kV rated line which is currently operating at only 69kV and the 345kV transmission lines would only carry 150 amps and 300 amps respectively. When asked during rebuttal testimony he was unable to state the overall capacity of either transmission line or what percentage of the capacity of each transmission line the amps used represented. Yet this data was readily available from EKPC personnel with whom he was working.

Dr. Cotts confirmed during rebuttal testimony that the maximum level of magnetic fields he projected for the center of the transmission lines at the Barker house to be 22 milligauss. He apparently failed to look at Dr. Dolloff’s test results where Dr. Dolloff measured 61 milligauss near the center of the transmission lines, almost three times the projected maximum magnetic fields that Dr. Cotts stated. When Dr. Dolloff made his measurements the 345kV circuit was operating at 26 percent of capacity and the 69kV circuit was operating at four percent of capacity. Thus, Dr. Cotts entire testimony should be discounted.

SEE ATTACHMENT NO.3-- Photos Supporting High Magnetic Fields.

Dangers of EMF

There has been a lot of testimony concerning the health hazards associated with EMF generated by overhead high voltage transmission lines particularly when the transmission lines operate at 345kV and higher. The magnitude of the electric fields produced is a function of the voltage of the transmission lines and the magnitude of the magnetic fields produced is a function of the amount of current passing through the transmission lines. It has also been stated by all experts that both types of fields dissipate as you move away from the transmission lines. It is also obvious that the Barker house is at a fixed distance from the center line of the transmission lines. However, the height of the transmission line conductors is not fixed with respect to the ground and thus not fixed with respect to the Barker house. The length of the conductors between H-frame poles, UT78 and UT-80, increases and decreases on a regular basis as the conditions of the conductors change. Conductor length is affected by ambient temperature, current flowing through the conductors, wind, rain, ice buildup, the direction the sun shines on the conductors, and so forth. As conductors heat, they stretch; and as they cool, they contract. As a result, the distance of the conductors to the Barker house changes on a regular basis.

Transmission Line Loading:

Dr. Cotts, EKPC's expert, stated in his direct testimony that according to EKPC the normal loading was 150 amps and 300 amps respectively for the 69 kV circuit and 345 kV circuit which represents only a ten percent loading of the transmission lines.

Dr. Dolloff in his direct testimony opined at length that the line was designed based upon the Next Contingency concept which is an N+1 contingency. In other words, the line was designed to be operated at no greater than 50 percent loading during normal conditions.

Under what conditions would the 50 percent capacity be exceeded? First, there are the emergency conditions due to weather, i.e. high wind, large snow and ice storms where transmission lines and substations are taken off line due to damage to these facilities. Next, accidents disrupt energy transmission such as car and rail accidents. There are also equipment failures such as generating stations going off line, transformer failures, lightning damage, etc.

Finally, EKPC's transmission and generating facilities are interconnected with other utilities. Interconnecting utilities often sell excess energy to other utilities resulting in large financial gains. This selling of excess capacity results in transmission facilities exceeding their Next Contingency requirements resulting in transmission lines being operated at or near full capacity and at times in excess of the facilities full capacity. This is demonstrated by the following fine levied against EKPC for operating all 107 of their transmission facilities in excess of their thermal limits.

"Eastern Kentucky Power Cooperative (EKPC), Docket NP13-12-000 (December 31, 2012)

Reliability Standard: FAC-009-1

Requirement: 1

Violation Risk Factor: Medium

Violation Severity Level: Severe

Region: SERC

Issue: In response to a SERC notice of a Compliance Audit scheduled to begin March 19, 2012, EKPC, as a Generator and Transmission Owner, self-reported violations of FAC-009-1 R1 on March 16, 2012. First, EKPC reported that the facility ratings provided for its J.S. Cooper

Units #1 and #2 conflicted with its Facility Ratings Methodology (FRM). The actual power factors used to determine the gross and net MW output of each unit were inconsistent with the power factors in EKPC's ratings database. Second, EKPC also did not comply with its FRM in failing to consider the thermal current carrying ability of the relays for any of its generators, lines and transformers. SERC treated this second self-report as an expansion of scope to the first. All 107 of EKPC's transmission facilities were in violation. With the relay thermal limit now included, EKPC lowered its Facility Ratings for 16 transmission Facilities

Finding: The violation posed a moderate risk to BPS reliability, but not a serious or substantial risk, for the following reasons: (1) EKPC only had to lower Facility Ratings for 16 (out of 107) transmission facilities, where the relays were the most limiting element. However, failure of these protective relays could cause damage, through excessive loading, that would keep them from operating correctly during faulted conditions; (2) only the stated power factor was incorrect for Units #1 and #2 at the J.S. Cooper plant, and EKPC's Facility Ratings did not misrepresent the real and reactive power output values of these units. In determining the appropriate penalty and approving the settlement agreement, SERC considered EKPC's ICP as a mitigating factor. No self-report credit was given because it was submitted in advance of a SERC audit.

Total Penalty: \$15,000 (aggregate for 4 violations)

FERC Order: January 30, 2013 (no further review)"

Neither Dr. Dolloff nor Dr. Cotts estimate the magnetic or electric fields at the Barkers' driveway or house under a 50 percent Next Contingency level or at a 100 percent of conductor capacity level even though they had software that would allow them to make such projections.

Decrease of Distance and Electric Fields:

As described above, when the conductors get closer to the Barker house the magnitude of electric fields increase.

Transmission Line Loading	Edge of Driveway	138 kV line	345 kV line
Dr. Dolloff measured:	0.964kV/m	4.9%	13.1%
Dr. Cotts calculated maximum	1.3kV/m	10%	10%
Mr. Pfeiffer calculated maximum	1.438kV/m	0%	100%
Mr. Pfeiffer calculated maximum	1.138kV/m	100%	100%

The result of these electric fields is that metallic objects become charges. As states in Mr. Pfeiffer’s direct testimony Brooks Barker has measured charge buildup on his pickup truck of as high as 330 volts to ground. Dr. Cotts calculated that electric fields at the driveway of 1 kV/m could generate a voltage on a Dodge pickup truck of 439 volts. Based on Mr. Pfeiffer’s projections of the electric fields reaching 1.438kV/m that will translate to 631 volts on the Barker truck. Note that Dr. Cotts states in his direct testimony that the extrapolation is linear.

This level of electric shock may not product enough current flow through a person to cause their heart to stop (electrocution) but will generate a very noticeable effect. This is illustrated by two extreme but not unusual cases.

First, a child three years of age has been swimming in the Barkers’ pool. The child being somewhat wet, and with bare feet, walks over and touches a car or truck in the Barkers’ driveway. A charge of 631 volts will be a shock this young child will not forget. The effect of electric shock is a function of contact resistance. For an adult the body’s resistance varies from a low of about 1000 ohms to a high of approximately 600,000 ohms. The key differentiating factor

is contact resistance. The contact resistance of a young child's hand and feet is very low since the child's skin is soft. If the child's hands and feet are damp the contact resistance drops considerably. Thus, the effect of a 631 volt shock on the child is quite significant.

Second, an elderly man with an implanted heart assist device is going to the Barkers' candy shop. Many elderly people try to hold onto anything they can as they walk, particularly on uneven surfaces. What will this person do if he happens to touch Brooks Barker's truck with a 631 volt charge? Will the shock cause problems for the implemented heart device? That is hard to determine. But what if the parson falls as a result of the sudden shock? Who is liable for his injuries?

Decrease of distance / Increase in Line Current and Magnetic Fields:

As described above, when the conductors get closer to the Barker house the magnitude of magnetic fields increase. The magnetic fields also increase as the line current increases. Thus, a doubling effect. The lines get closer when the current increased causing the conductors to heat increasing their length and the magnetic fields increase further do to the increased current.

Transmission Line Loading	Edge of Driveway	138 kV line	345 kV line
Dr. Dolloff measured:	31.4mG	4.9%	13.1%
Dr. Cotts calculated maximum	7.7 mG	10%	10%
Mr. Pfeiffer measured	9.6 mG	8.1%	3.5%
Mr. Pfeiffer calculated maximum	191 mG	100%	100%

Dr. Carpenter opined during his rebuttal testimony that the EMF standards for the State of New York were set based upon political considerations rather than medical considerations. He

stated that the standards were set at a level where no existing transmission lines in the state of New York, at the time the standard was enacted, would be out of compliance.

New York's approach appears to be the basic approach of other states in the United States, whereas other countries have set their standards at significantly lower values based upon medical concerns.

As stated above it cannot be assumed that the transmission line will always be operated at around 10 percent of capacity and equally so that the transmission lines will not be operated all the time near or in excess of its 100 percent line capacity. The length of time for transmission line operation near or in excess of its 100 percent line capacity can be anywhere from a few hours to a number of days and even many days depending upon the reason. During anytime of above average line operating capacity the Barkers are exposed to high levels of magnetic fields 24 hours a day throughout the extended period of time.

According to Dr. Carpenter's rebuttal testimony magnetic fields greater than 4mG are hazardous to human health. The Barkers have experienced magnetic fields in their house ranging from approximately 0 to 24 milligauss with an average of approximately 12 milligauss. Mr. Pfeiffer has estimated that the magnetic fields will approach 191 milligauss when the transmission lines are operated at or near full capacity. The Barkers' health concerns are real and cannot be ignored.

SEE ATTACHMENT 4: Siting of Electric Transmission Lines, Report 348, Chapter 1 Page 20.

Health and Safety Issues Addressed by Dr. David O. Carpenter, MD

A. INTRODUCTION:

Mr. and Mrs. Barker and their son, Brooks, live at 5450 Mt. Sterling Road, Winchester, KY. East Kentucky Power Cooperative, Inc. (EKPC) has located a new 345,000 volt (345kV) /138,000 volt (138kV) double circuit power line across the farm belonging to the Barkers. This power line is in the right-of-way of an original line operating at 69kV, but the right-of-way was increased from 100 to 150 feet for the new line. The nearest 345kV conductor is within 48 feet of their home.

B. ISSUES:

The central issue is whether or not the operation of the 345 kV/138 kV power lines so close to the Barker's residence constitutes an unacceptable hazard to their health, and whether they are justified in demanding that the line be moved a short distance such that they are not excessively exposed to elevated magnetic fields and electric shocks within their home and driveway.

C. PROPOSED FINDINGS OF FACT:

While the line is currently operating at less than full capacity, magnetic field readings as high as 28milliGauss (mg) have been recorded within the living quarters of the Barkers home. Almost none of the 150 plus measurements of magnetic field intensity at the kitchen sink have been less than 2mG (a level below which no adverse health effects have been reported), and most have been greater than 10mG. There is clear evidence from human health studies that chronic exposure to magnetic field intensities of 4mG or greater results in an increased risk of cancer. The Barkers also have found that they receive an electric shock when they touch bare metal or a vehicle parked in their driveway.

D. ANALYSIS AND DISCUSSION:

There is a large body of evidence that shows that exposure to excessive intensities of 60Hz magnetic fields is associated with an increased risk of cancer, particularly leukemia and brain cancer. This evidence is even acknowledged by the defendants' expert, Dr. Mezei, who then attempts to discount that evidence by implying that there remains some uncertainty of the mechanisms whereby such fields cause cancer. Dr. Mezei has even published scientific papers demonstrating the risk of cancer from exposure to high magnetic fields. The table below is copied from the publication, "Occupational electromagnetic fields and leukemia and brain cancer: An update to two meta-analyses", author by Leeka Kheifets, Jason Monroe, Ximena Vergara, Gabor Mezei and Abdelmonem A. Afifi and published in the Journal of Occupational and Environmental Medicine, Volume 50, pages 677-688: 2008. When considering all of the studies that have been reported up to this date, they find that among individuals working in occupations with elevated magnetic fields, as compared to those working in occupations that do not have elevated magnetic fields, there is a statistically significant 14 percent increase in brain cancer, a 16 percent increase in rates of all forms of leukemia, a 23 percent increase in rates of acute lymphocytic leukemia and a 35 percent elevation in rates of chronic lymphocytic leukemia. Thus Dr. Mezei's own research completely contradicts his testimony.

TABLE 2
Pooled Risk Estimates of Occupational EMF Exposures and Leukemia and Brain Cancer Fixed and Random Effect Models

Outcome	Past Metaanalyses		New Metaanalyses		Combined	
	No. Studies	Pooled RR and 95% CI	No. Studies	Pooled RR and 95% CI	No. of Studies	Pooled RR and 95% CI
All Brain	29	1.21 (1.11-1.33)	20	1.10 (0.99-1.23)	47	1.14 (1.07-1.22)
Gliomas	11	1.39 (1.07-1.82)	11	1.16 (1.09-1.25)	22	1.18 (1.1-1.26)
All leukemia	38	1.18 (1.12-1.24)	21	1.13 (1.07-1.19)	58	1.16 (1.11-1.22)
AML	18	1.40 (1.16-1.69)	11	1.09 (0.98-1.21)	28	1.23 (1.08-1.41)
CLL	12	1.55 (1.10-2.19)	9	1.18 (1.02-1.37)	21	1.35 (1.10-1.65)
ALL	7	1.33 (0.93-1.92)	9	1.38 (1.07-1.78)	16	1.37 (1.11-1.69)
CML	7	1.24 (0.98-1.57)	9	1.11 (0.94-1.31)	16	1.22 (0.98-1.52)

Bold type represents random effects estimates. Number of studies in Combined analysis may not reflect sum of past and new meta-analyses as some studies were updates.

Whether or not the mechanism is understood completely, the fact remains that there is evidence for elevation in risk of cancer among individuals exposed to high magnetic fields. In addition there is a new publication that is a meta-analysis of all studies of childhood leukemia risk from residential exposure to magnetic fields, entitled “Magnetic fields exposure and childhood leukemia risk: A meta-analysis based on 11,699 cases and 13,194 controls”, published in the journal, *Leukemia research*, volume 38, pages 269-274: 2014 by Zhao et al. They found when comparing children living in homes with magnetic fields greater than 4mG to those living in homes with magnetic fields less than 1mG, there is a 57 percent elevated risk for all forms of leukemia, and a 243 percent elevated risk for acute lymphocytic leukemia. These facts alone is sufficient basis for the Barkers to be more than justified in opposing the operation of this power line so close to their home. The World Health Organization International Agency for Research on Cancer has declared magnetic fields from power lines to be a possible human carcinogen, based on evidence from human studies showing increases in rates of leukemia among individuals exposed to high magnetic fields. In addition to cancer there is also evidence for an association between exposure to high magnetic fields and several other human diseases, including Alzheimer’s diseases and adverse effects on male reproduction. The evidence for risks of these diseases resulting from magnetic field exposures has been presented in my report, and has not been refuted in any credible fashion by the defendants’ experts. By living in a home with elevated magnetic fields the Barkers are at elevated risk of development of each of these diseases.

E. PROPOSED CONCLUSIONS OF LAW:

My area of expertise is medicine, not law, but any industry that knowingly exposes people to an agent which will increase risk of cancer and other diseases is irresponsible,

unethical and legally liable. In this case the solution is so easy – simply moving the line a short distance from the house. It is inexcusable not to do so.

F. PROPOSED REMEDY:

The 345kV/138kV power line should be relocated sufficiently far enough from the Barker's home such that there are no electric shocks when touching metal or vehicles and that the magnetic fields measured within their home and the driveway **do not** exceed 2mG.

Finally, it should be noted that EKPC's Mary Jane Warner participated in a meeting of the Program Review and Investigations Committee of the Kentucky General Assembly on November 8, 2007 wherein she aided in the discussion regarding siting of electric transmission lines. Implicit in her statements before the Committee was a recognition of the health concerns of EMF exposure. According to the Minutes of said meeting, Ms. Warner said that the distance a person is away from the wire is a more important factor than the voltage. She also stated there are no standards set by the regulators (presumably, including the PSC), but it is a concern. **SEE ATTACHMENT 5**

Barkers' Summary

A. EKPC had numerous opportunities from the original designing stages to the actual removal of the old 69kV lines to remedy a hazardous situation which EKPC knew would present major health and safety problems. Instead EKPC chose to manipulate the rules of KRS 278.020 (2) (8) and Senate Bill 246 to accommodate their need to cut corners, expedite a swift construction of a transmission line, ignore the concerns of property owners and refuse to locate the 345kV/138kV line a safe distance away from the Barker's residence. EKPC's letter dated October 7, 2005 to the PSC clearly misrepresents facts regarding the actual size and length of the

Smith-Hunt-North Clark Transmission Line Project. Since the PSC was the only entity to be given the misrepresented facts, it would appear that EKPC did this deliberately in order to avoid the procedures involved in a CPCN process. As a result the Barkers were not allowed to intervene through the normal processes which has created the situation that exists today and has forced the Barkers to “reverse intervene”, which unnecessarily overburdens the PSC and everyone involved. The Barkers appreciate the PSC’s decision to allow this formal hearing to proceed, since this process was the only way to disclose the actual correct circumstances and facts involved in the construction of this transmission line project.

THE COMMISSION HAS BROAD DISCRETION IN SHAPING A REMEDY WHERE A UTILITY FAILS TO OBTAIN A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY, INCLUDING REQUIRING REMOVAL OR RELOCATION OF THE TRANSMISSION LINE

In the July 24, 2014 Order, the Commission directed the parties to address, with supporting legal authority, “the possible remedies available in the event the Commission were to find a Certificate of Public Convenience and Necessity (“CPCN”) to be necessary for the transmission line project at issue.” July 24, 2014 Order, Case No. 2013-00291, at p.1.

The Commission has broad discretion in fashioning a remedy for the failure of East Kentucky Power Cooperative to apply for and obtain a CPCN prior to engaging in construction of the new electric transmission line at issue in this case. While there are no reported decisions in Kentucky squarely addressing the question, decisions of other jurisdictions support the conclusion that the Commission has the authority to direct East Kentucky to relocate the transmission line, as has been requested by the Barkers.

As a general matter, public utility commissions are acknowledged to have broad discretion in determining whether to grant, deny, or condition a Certificate of Public Convenience and Necessity (CPCN) based on the Commission’s determination of whether the

“public convenience and necessity require the service or construction.” The Commission “has great latitude to impose conditions on its grant of a certificate of public convenience and necessity” provided that “any conditions imposed on a certificate of convenience and necessity” are “lawful and reasonable,” meaning that the condition is within the statutory power of the commission and is based on substantial evidence. 64 Am Jur 2d Public Utilities §160. Under KRS 278.020, the Commission has the authority to issue or refuse a certificate, or to issue it in part and refuse it in part. KRS 278.020(1).

In this case, the failure of EKPC to have applied for and obtained a CPCN prior to construction of the new transmission line appears to have resulted in the very wasteful duplication that the CPCN process seeks to avoid. In constructing without prior review and approval by the Commission, EKPC avoided having to demonstrate the necessity for the line, and that the line location was prudent in light of the current state of knowledge concerning the health effects of electric and magnetic fields. The Barkers, and others similarly situated, would have had a forum in which to present their concerns in a timely manner, and EKPC would have the opportunity to justify under oath why the line size, configuration, and location, were prudent and in the public interest.

The decision of EKPC to construct without obtaining a CPCN has caused material interference with the use and enjoyment of the Barker property, a harm which could have been avoided at reasonable expense by relocating the line on the Barker property at a reasonable distance from their home. EKPC should not be allowed to benefit from the decision to act without proper authorization, and should be required to relocate the line as had been suggested by the Barkers from the onset.

That the Commission has the authority to craft a remedy to the failure to comply with the CPCN requirement is inherent in the power granted by

KRS 278.040 of “exclusive jurisdiction over the regulation of rates and service of utilities” and the power to require utilities to “conform to the laws of this state[,]” KRS 278.040 §§ (2), (3), as well as the authority to grant, refuse, or condition issuance of a CPCN. In reviewing a decision of the Colorado Public Utilities Commission setting aside an assets transfer made by a telephone company without Commission approval, the Supreme Court of Colorado noted:

We first note that any consideration given to Mountain Bell's strongly stated objections to the remedy devised by the PUC must be tempered by the fact that it elected to proceed with the assets transfer without securing prior PUC approval. We must presume that Mountain Bell acted with full awareness of the risks of violating section 40-5-105.

We reject Mountain Bell's objection to the remedy imposed for two reasons. First, the PUC has the authority to order an appropriate remedy by virtue of its statutory duty to administer and enforce the public utilities law. § 40-7-101, 17 C.R.S. (1984). *Denver Welfare Rights Organ v. Public Util. Comm'n*, 190 Colo. 329, 335, 547 P.2d 239, 244 (1976). The legislature expected and, indeed, directed substantial PUC involvement in the conditions as are prescribed by the PUC. Pursuant to section 40-3-102, 17 C.R.S. (1984), the PUC is vested with the power to regulate rates of public utilities and to correct abuses by doing all things which are necessary or convenient to the exercise of its regulatory authority. *GTE Sprint Communications Corp. v. Public Util. Comm'n*, 753 P.2d 212, 217 (Colo. 1988).

This statutory mandate necessarily includes the power to fashion an appropriate remedy to correct a violation of section 40-5-105, including ordering the reacquisition of assets.

Mountain States Telephone and Telegraph Company v. Public Utilities Commission, 763 P.2d 1020 (Co. 1988) at 1029-1030. (emphasis added).

In this instance, EKPC acted with knowledge of the consequences and should not be heard to complain if it is required to relocate the line to the location originally offered by the Barkers. The powers conferred in KRS 278.040 “necessarily include,” as the Mountain States Court noted, the authority to issue remedial orders directing that the violation be remedied.

Rejecting a challenge to the issuance of a CPCN retroactively for a pipeline project that had not timely applied for and received a CPCN, the Supreme Court of Wyoming agreed with the Wyoming Public Service Commission that the Commission had the discretion to issue or

deny a CPCN retroactively and to determine what sanctions, if any, to impose. Williston Basin Interstate Pipeline Company v. Wyoming Public Service Commission, 996 P.2d 663 (Wyo. 2000) at 667. In similar vein, the Commission here has the discretion to shape a remedy appropriate to the failure to timely apply for a CPCN, including retroactive issuance of a CPCN conditioned on relocation of the portion of the line adversely affecting the Barkers. The Barkers respectfully request that the Commission direct EKPC to relocate the portion of the new transmission line on the Barker property to another location a reasonable distance from the Barker residence.

SETTLEMENT NEGOTIATIONS HELD SINCE JULY 29, 2013

See attached letters from M. Alex Rowady, Esq. and David S. Samford, Esq.

BLAIR & ROWADY, P.S.C.

ATTORNEYS AT LAW

M. Alex Rowady
Kimberly Carter Blair

Of Counsel
Michael A. Rowady

212 South Maple Street
Winchester, Kentucky 40391
Telephone 859-744-3231/744-3272
Facsimile 859-745-0729

August 4, 2014

David S. Samford, Esq.
Goss Samford
2365 Harrodsburg Road
Suite B325
Lexington, Kentucky 40504
E-MAIL TRANSMISSION (david@gosssamfordlaw.com) and US MAIL

Re: In the Matter of Harold Barker, Ann Barker and Brooks Barker v.
East Kentucky Power Cooperative, Inc. ("EKPC"); PSC Case No. 2013-00291

Dear David:

I have been authorized to make the following offer of settlement in the above-styled matter:


1. EKPC would agree to move its 345kV/138kV transmission line crossing the Barkers' property a distance of 309 feet to the east of its present location as recommended by the Barkers' engineer, John Pfeiffer. The relocation would be made at the sole expense of EKPC. EKPC would be responsible for restoring the Barkers' land to its condition prior to the relocation.
2. If EKPC agrees to item 1 above and subject to the approval of the PSC and the Court, the Barkers would agree to dismiss the action now pending before the PSC and would agree to the dismissal, with prejudice, of the action now pending in Clark Circuit Court, case no. 06-C1-00419.
3. The Barkers would further agree to not seek additional compensation for the taking needed to relocate the transmission line. They would, however, require the sum of \$30,000.00 for the damages to their land, fencing and concrete driveway caused by EKPC during the original relocation process in 2006.

David S. Sanford, Esq.
August 4, 2014
Page two

The Barkers have discussed the possible relocation of the line with their adjoining property owners, Mr. and Mrs. Fred Farris. It is the Barkers' understanding that the Farris are prepared to be of assistance in the resolution of this dispute.

I look forward to your response.

Very truly yours,

A handwritten signature in black ink, appearing to read 'M. Alex Rowady', with a long horizontal flourish extending to the right.

M. Alex Rowady

MAR/abh
cc: Harold, Ann and Brooks Barker (email transmission only)

BLAIR & ROWADY, P.S.C.

ATTORNEYS AT LAW

M. Alex Rowady
Kimberly Carter Blair

Of Counsel
Michael A. Rowady

212 South Maple Street
Winchester, Kentucky 40391
Telephone 859-744-3251/744-3272
Facsimile 859-745-0729

August 5, 2014

David S. Samford, Esq.
Goss Samford
2365 Harrodsburg Road
Suite B325
Lexington, Kentucky 40504
E-MAIL TRANSMISSION (david@gossamfordlaw.com) and US MAIL

Re: In the Matter of Harold Barker, Ann Barker and Brooks Barker v.
East Kentucky Power Cooperative, Inc. ("EKPC"); PSC Case No. 2013-00291

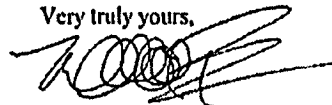
Dear David:

The following is substituted for Paragraph 2 of the Barkers' offer of settlement transmitted on August 4, 2014:

2. If EKPC agrees to item 1 above and subject to the approval of the PSC and the Court, the Barkers would agree to the dismissal, with prejudice, of the action now pending in Clark Circuit Court, case no. 06-CI-00419.

I apologize for any inconvenience this may have caused.

Very truly yours,



M. Alex Rowady

MAR/abh
cc: Harold, Ann and Brooks Barker (email transmission only)

ATTACHMENT NO. 4

Legislative Research Commission – Ky. Siting of Electric Transmission Lines

Report 348—Chapter 1 page 20.

Chapter 1

Legislative Research Commission
Program Review and Investigations

The report's authors did suggest that power lines be sited to reduce exposure to EMF.

The report's authors did suggest that power lines be sited to reduce exposure and that the industry "continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards" (U.S. Dept. of Health, National. *Health Effects* 38).

At least six states have standards for maximum electric fields in the rights-of-way and/or at the edges of rights-of-way of transmission lines. At least four states have standards for magnetic fields at the edges of rights-of-way.

Some States Have Standards for Allowable Electromagnetic Fields. At least six states have standards for maximum electric fields in the rights-of-way and/or at the edges of rights-of-way of transmission lines: Florida, Minnesota, Montana, New Jersey, New York, and Oregon. At least four states have standards for magnetic fields at the edges of rights-of-way: Connecticut, Florida, Massachusetts, and New York (Commonwealth of Virginia 87; U.S. Dept. of Health, National. *Electric* 46).

In 2004, the Connecticut General Assembly enacted into law the requirement that the Connecticut Siting Council adopt standards for best management practices for BMP. The law also establishes a presumption that transmission lines of 345 kilovolts or more located adjacent to residential areas and other specified areas should be buried. The law allows an applicant to rebut this presumption by showing the council that burial is technologically infeasible, taking into account the reliability of the state's electric grid.

Respectfully submitted,



M. ALEX ROWADY, ESQ.
Blair & Rowady, P.S.C.
212 South Maple Street
Winchester, Kentucky 40391
(859) 744-3251
ATTORNEY FOR COMPLAINANTS

CERTIFICATE OF SERVICE

This is to certify that the original and eight true copies of the foregoing Complainants' Post-Hearing Brief was hand delivered to Kentucky Public Service Commission, P.O. Box 615, Frankfort, Kentucky 40602-0615 and a true copy was sent by first-class mail to David S. Samford, Esq., Goss Samford, PLLC, Attorneys for Defendant, 2365 Harrodsburg Road, Suite B325, Lexington, Kentucky 40504, this 15 day of August, 2014.



M. ALEX ROWADY, ESQ.





EAST KENTUCKY POWER COOPERATIVE

RECEIVED

OCT 12 2005

PUBLIC SERVICE
COMMISSION

October 7, 2005

Ms. Elizabeth O'Donnell
Executive Director
Commonwealth of Kentucky
Public Service Commission
211 Sower Boulevard
PO Box 615
Frankfort, KY 40602-0615

RE: Request for Staff Opinion

Dear Ms. O'Donnell;

This letter is a request by East Kentucky Power Cooperative, Inc. ("EKPC") for a Public Service Commission Staff Opinion that, pursuant to KRS 278.020(2)(a), the hereinafter described replacement and upgrading of EKPC's existing Smith - Hunt - Sideview 69kV electric transmission line does not require the issuance of a certificate of public convenience and necessity by the Commission.

EKPC's existing Smith-Hunt-Sideview transmission line is approximately 18 miles long and is constructed on a one-hundred foot wide right of way. It is supported by wooden single pole structures, wooden H-frame structures and some 3-pole wooden angle structures. This line is a single-circuit 69 kV electric transmission line and was constructed in the early-to-mid 1950's.

EKPC proposes to replace and upgrade this line with a double-circuit 345 kV/69 kV electric transmission line. The upgraded line will be supported by steel H-frame structures and steel 3-pole angle structures. Because it will be 345 kV, it will be necessary to acquire an additional 50 feet of right of way. The upgraded line will be rebuilt upon the same centerline as the existing line for almost the entire length of the rebuild with the additional 50 feet of right of way consisting of 25 feet on each side of the existing right of way.

There are, however, several locations along the existing right of way where, subsequent to the construction of the existing line, property owners have constructed residences and other structures immediately adjacent to the existing right of way. Based on the information EKPC currently has available, it now appears that this situation has occurred

4775 Lexington Road 40391
P.O. Box 707, Winchester,
Kentucky 40392-0707

Tel. (859) 744-4812
Fax: (859) 744-6008
<http://www.ekpc.coop>

Attachment 1.

Ms. Elizabeth O'Donnell
October 10, 2005
Page Two

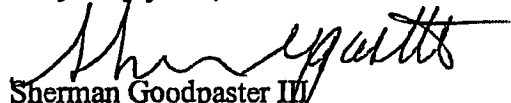
in approximately six separate locations. At these locations, expansion of the existing right of way by 25 feet in the direction of these residences and other structures would require the acquisition and destruction of these structures resulting in the relocation of the occupants of the residences. In order to avoid this, it will be necessary to acquire the entire 50 feet of additional right of way on the side of the right of way away from these structures and then adjust the centerline accordingly so as to provide adequate clearance from these structures. Based on currently available information, it now appears that these are the only locations where the upgraded double circuit line will not be located along the same centerline as the existing transmission line.

There will be two locations where it will be necessary to locate the 345 kV circuit of the upgraded transmission line on a separate and new centerline. The first of these is required in order to bypass the existing Hunt substation. The second of these is required to extend the 345 kV circuit beyond the Sideview substation to the point of interconnection with EKPC's existing 345 kV Spurlock-Avon transmission line. It currently appears that the total length of both of these sections of new centerline will be less than 4000 feet.

It is EKPC's belief that this proposed project constitutes the replacement and upgrading of its existing Smith-Hunt-Sideview electric transmission line and construction of less than 1 mile of new 345 kV line. As such, this project should fall under the exception set forth in KRS 278.020(2)(a) and should not require a certificate of public convenience and necessity. EKPC would accordingly request that the Commission Staff issue a Staff Opinion to that effect.

Due to the urgent nature of this project, EKPC would also request that this Opinion be issued in the most expeditious manner possible considering everyone's schedule and workloads. We thank you very much for your consideration and cooperation in this matter.

Very truly yours,


Sherman Goodpaster III
Senior Corporate Counsel

SG/ti

Point "B"
Ending point of
deviated route

EKPC Parcel #258
Dora Wells Estate

Point "A"
Beginning point of
deviated route

Attachment 2.

- Final Route Deviation
- Original Route Deviation
- Original 69kv Centerline
- Parcels



Exhibit 1-A-2

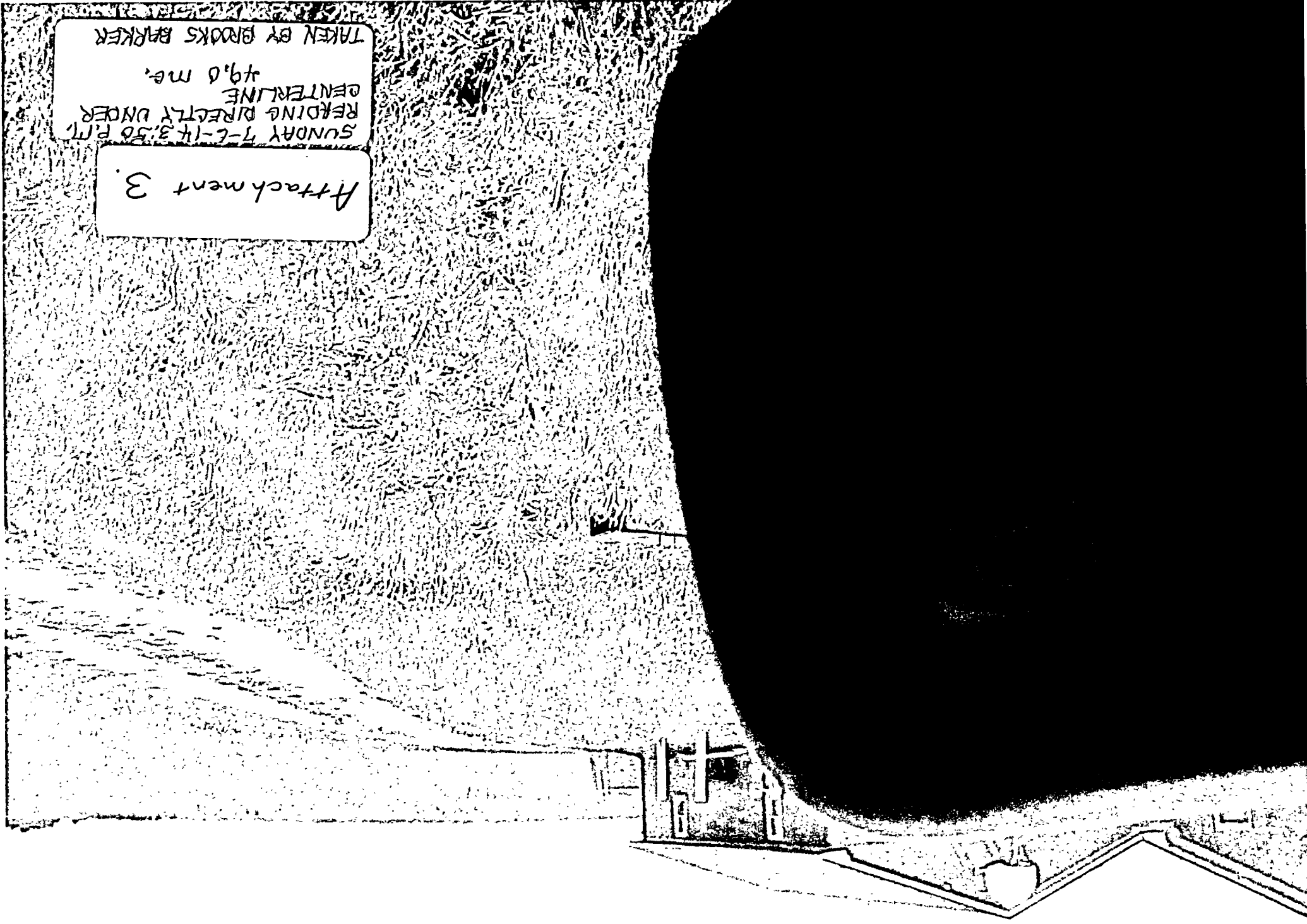
Case 2013-00291

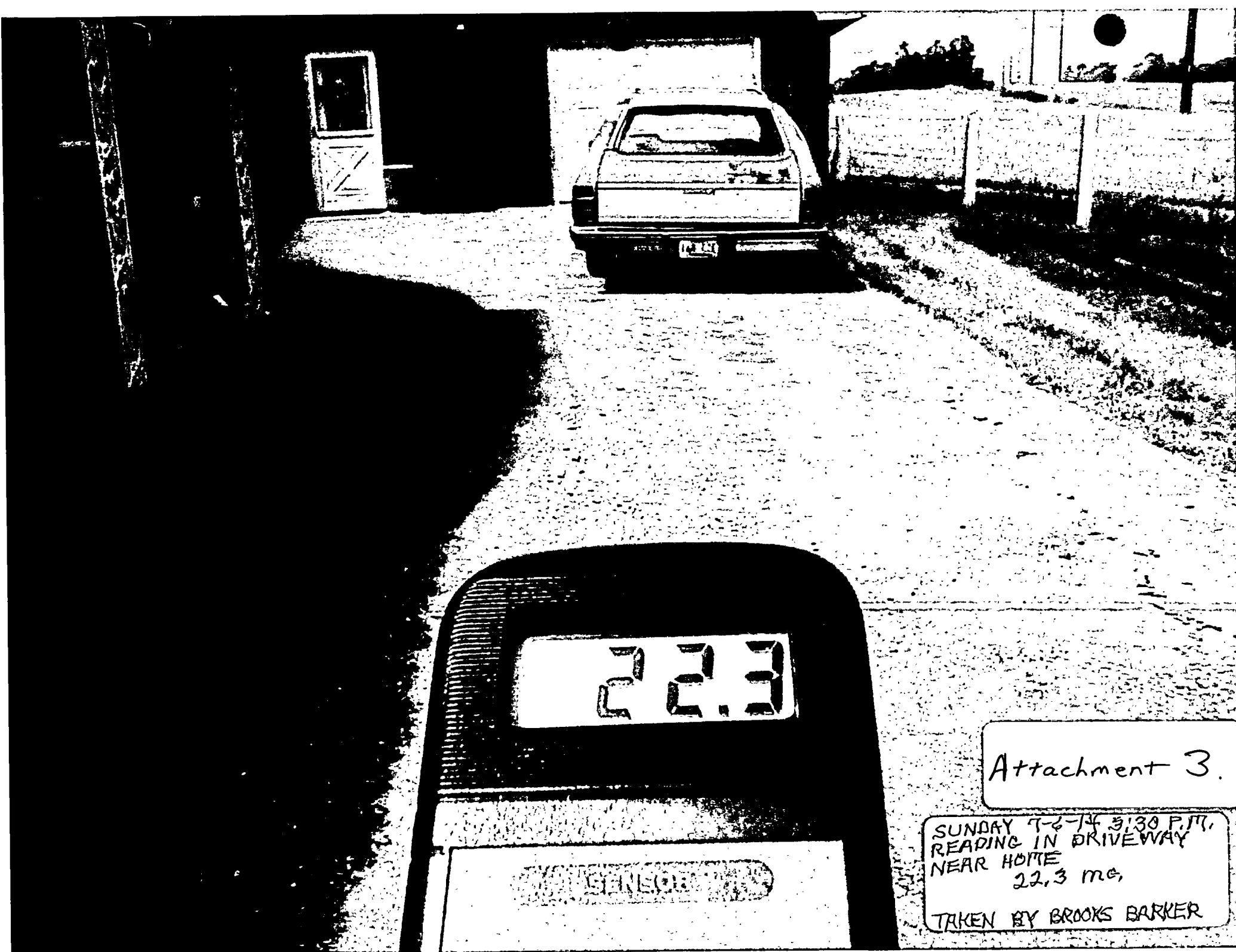


East Kentucky Power Cooperative
4775 Lexington Road, PO Box 707
Winchester, Kentucky 40392
Phone (859)744-4812 www.ekpc.coop Fax (859)744-6008

TAKEN BY BROOKS BARKER
SUNDAY 7-6-14 3:58 P.M.
READING DIRECTLY UNDER
CENTERLINE
49.0 m.e.

Attachment 3.





223

Attachment 3.

SUNDAY 7-6-14 3:30 P.M.
READING IN DRIVEWAY
NEAR HOME
22.3 mg.

TAKEN BY BROOKS BARKER

18.3

SERIES



Brooks Barker

Attachment 3.

SUNDAY 7-6-14 4:09 PM.
READING IN HOTTIE
IN KITCHEN
18.3 MG.

TAKEN BY BROOKS BARKER

The report's authors did suggest that power lines be sited to reduce exposure to EMF.

The report's authors did suggest that power lines be sited to reduce exposure and that the industry "continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards" (U.S. Dept. of Health. National. *Health Effects* 38).

At least six states have standards for maximum electric fields in the rights-of-way and/or at the edges of rights-of-way of transmission lines. At least four states have standards for magnetic fields at the edges of rights-of-way.

Some States Have Standards for Allowable Electromagnetic Fields. At least six states have standards for maximum electric fields in the rights-of-way and/or at the edges of rights-of-way of transmission lines: Florida, Minnesota, Montana, New Jersey, New York, and Oregon. At least four states have standards for magnetic fields at the edges of rights-of-way: Connecticut, Florida, Massachusetts, and New York (Commonwealth of Virginia 87; U.S. Dept. of Health. National. *Electric* 46).

In 2004, the Connecticut General Assembly enacted into law the requirement that the Connecticut Siting Council adopt standards for best management practices for EMF. The law also establishes a presumption that transmission lines of 345 kilovolts or more located adjacent to residential areas and other specified areas should be buried. The law allows an applicant to rebut this presumption by showing the council that burial is technologically infeasible, taking into account the reliability of the state's electric grid.

Attachment 4.

http://www.lrc.ky.gov/minutes/prog_rev/071108OK.HTM (9 hits)

PROGRAM REVIEW AND INVESTIGATIONS COMMITTEE

Minutes

November 8, 2007

The Program Review and Investigations Committee met on Thursday, November 8, 2007, at 10:00 AM, in Room 131 of the Capitol Annex. Representative Rick G. Nelson, Chair, called the meeting to order, and the secretary called the roll.

Present were:

Members: Senator Ernie Harris, Co-Chair; Representative Rick G. Nelson, Co-Chair; Senators Vernie McGaha, Joey Pendleton, Dan Seum, and Katie Stine; Representatives Dwight D. Butler, Leslie Combs, Charlie Hoffman, Ruth Ann Palumbo, Rick Rand, and Arnold Simpson.

Guests: Beth O'Donnell, Executive Director, and David Samford, General Counsel, Public Service Commission; Mary Jane Warner, Manager of Engineering, East Kentucky Power Cooperative; Ed Staton, Director of Transmission, and Robbie Trimble, Manager of Transmission Lines, E.ON U.S.; Ben Cook, Chief Executive Officer, Rick McQuady, Chief Operating Officer, and Mark Offerman, Chief Program Officer, Kentucky Housing Corporation.

LRC Staff: Greg Hager, Committee Staff Administrator; Rick Graycarek; Jim Guinn; Christopher Hall; Margaret Hurst; Colleen Kennedy; Van Knowles; Rkia Rhrib; Tara Rose; Cindy Upton; Kristi Culpepper, LRC Staff Economist; and Karen Wirth, Committee Assistant.

Minutes of the October 11, 2007 meeting were approved, without objection, upon motion made by Sen. Seum and seconded by Rep. Rand.

Greg Hager presented the report *Siting of Electric Transmission Lines*.

Mr. Hager said regulation of the siting of transmission lines in Kentucky is governed by the Public Service Commission (PSC) and the State Board on Electric Generation and Transmission Siting (Siting Board). The Siting Board reviews applications from entities not regulated by PSC for lines of 69 kilovolts or more.

Mr. Hager said the Tennessee Valley Authority has more than 1,500 miles of transmission lines in Kentucky but is a federal organization and not subject to regulation by Kentucky agencies.

He explained that PSC regulates six entities in Kentucky that transmit electricity: Kentucky Power, Duke Energy, the E.ON U.S. subsidiaries Kentucky Utilities and Louisville Gas and Electric, Big Rivers Electric Corporation, and East Kentucky Power Cooperative.

Attachment 5

Mr. Hager said the process for regulating lines changed in 2004 with the enactment of Senate Bill 246. Transmission line owners subject to PSC regulation must now obtain a Certificate of Public Convenience and Necessity (CPCN) from PSC for a line of at least 138 kilovolts and at least 1 mile long. Senate Bill 246 also changed the process to include participation by members of the public.

He said the process begins with the transmission owner filing a Notice of Intent to File an Application. The transmission owner must notify the public by publishing a notice in a local newspaper and must notify in writing each landowner affected by the transmission line. After 30 days, the transmission owner may apply for a CPCN. After the application is administratively complete, a member of the public can request a local hearing and request to participate in the case officially.

Mr. Hager said PSC is required to make its decision within 120 days. He said that PSC commissioners and staff identified the 120-day limit as a problem, especially if outside consultants were needed for cases. Some public participants have noted that they would like the time limit extended because there can be a lot of information for them to consider. Applicants for transmission lines said that the 120-day time period was sufficient and any additional time could cause delays beyond any time added to the limit, often involving environmental or construction issues. Mr. Hager said the report has no recommendation regarding the time limit, which is set by statute. Changing it would be a policy decision to be made by the General Assembly.

Mr. Hager said that an applicant using federally guaranteed loans must also comply with the National Environmental Policy Act (NEPA). Meeting NEPA requirements may require moving the centerline in order to limit the effects on the environment. This could cause a problem because PSC's approved route centerline can only be adjusted by 500 feet in either direction and must have written approval by the landowner. PSC's rationale for this is that the statute requires that affected landowners be notified of the proposed line and that they have the right to participate in the case.

Mr. Hager said PSC's criteria for whether to approve transmission lines are derived primarily from the 1952 court case Kentucky Utilities v. PSC. According to the ruling, applicants can meet the requirement for public convenience and necessity by demonstrating need and the absence of wasteful duplication. To demonstrate the absence of wasteful duplication, the applicant must show that it has conducted a thorough review of all alternatives and that the proposed route is reasonable. This involves a comprehensive analysis of existing utility corridors and rights-of-way.

He said that since 2004 PSC has emphasized co-locating or rebuilding lines. Routes with rebuild or co-location may not be the least expensive; a standard of reasonableness applies. Since 2004, PSC has approved applications for more than 200 miles of transmission line and denied applications for approximately 100 miles.

Mr. Hager said that an applicant to the Siting Board must complete a Notice of Intent to File an Application, notify the governor, and notify county and city governments and the public in the area of the proposed line. The applicant may apply for a construction certificate with the

Attachment 5

Siting Board 30 days after the notice. A member of the public can request a local public hearing and request to be a party to the case within 30 days of the application. A party to the case can also request an evidentiary hearing within 30 days of the application. If no local public hearing is held, the Siting Board's time limit for making a decision is 90 days. The limit is 120 days if a local public hearing is held.

He said the Siting Board's criteria for decisions are different from PSC's. By statute, the board can consider minimizing significant adverse impact on the scenic assets of Kentucky. A change to statute in 2006 allowed the board to consider interstate benefits of a proposed line. Since 2002, the Siting Board has approved applications for more than 150 miles of transmission line and denied no applications.

Mr. Hager discussed the routing method developed by the Electric Power Research Institute and the Georgia Transmission Corporation (EPRI-GTC). In 2006, a workshop including utilities, local governments, and groups representing neighborhood, environmental, and agricultural interests met to adapt the EPRI-GTC method for use in Kentucky. The resulting calibration of the EPRI-GTC method to Kentucky's conditions is referred to as the Kentucky Transmission Line Siting Model.

He said that the EPRI-GTC method is important because it has potential to significantly affect how transmission lines are routed in Kentucky and other states. He provided an overview of the method and gave examples of some aspects of it. The method has three phases, progressing from consideration of larger to smaller areas and based on more detailed data. Expert judgment is used to select the preferred route from among the routes that scored best according to the method.

Mr. Hager said the report recommends that PSC make available as a document and on its Website a primer on the workings of the Kentucky Transmission Line Siting Model. A second recommendation is that PSC should work with Kentucky utility companies to periodically update the model as changes in priorities may occur. The report's third recommendation is that PSC consider hiring a consultant to verify that data used in the model are accurate and to create a plan to address any data deficiencies found.

Mr. Hager summed up the report by noting its five major conclusions: 1) there is a limited number of transmission line cases to evaluate since the approval process was changed in 2004; 2) PSC has clarified its approval process since 2004; 3) PSC emphasizes co-locating or rebuilding lines but considers a standard of reasonableness in each case; 4) the 120-day time limit for deciding transmission line cases is acceptable to representatives of the utility companies, but PSC and some members of the public would like the limit increased; and 5) the use of the Kentucky Transmission Line Siting Model has great potential to make siting of routes more consistent.

Sen. Seum asked who appoints the Siting Board.

Mr. Hager responded that the five permanent members are the three PSC commissioners and two cabinet secretaries. Two ad hoc positions are filled on a case-by-case basis.

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Sen. Seum asked if the majority of transmission lines were overhead.

Mr. Hager said there are fewer than 10 miles of underground transmission lines in the state, likely because underground lines are much more expensive.

Sen. Seum asked if underground lines could be used in state and national parks.

Mr. Hager said that they could but that underground lines are not always environmentally advantageous.

Rep. Palumbo asked how property owners were notified.

Mr. Hager said that transmission owners must send written notification to affected landowners whose addresses are obtained from the office of the local property evaluation administrator. The transmission owner must also publish an advertisement in the local paper.

Rep. Palumbo asked how the decision is made to not co-locate lines.

Mr. Hager said that cost was a factor and the decision was made case-by-case.

Rep. Palumbo asked how sites of ritual importance are defined.

Christopher Hall replied that they are defined under NEPA and that he would provide this information.

In response to the report, Beth O'Donnell said the EPRI-GTC method adapted for use in Kentucky is one tool used in deciding among alternative routes. The model is somewhat generic and modified on a case-by-case basis. She said that PSC is considering implementing the report's first recommendation by putting a generic model on PSC's website, but this model would not be one that could be used in every case. Regarding the second recommendation, she said that updates could be made that are Kentucky specific. In regard to the final recommendation, she said that PSC does hire consultants to review analytical efforts in the selection process.

She said the 120-day time limit is difficult at times, especially when outside consultants or public participants are involved but she understands why others do not wish to lengthen the process.

Ms. O'Donnell said PSC allows a centerline to be moved 500 feet in either direction. She said that flexibility after the CPCN has been granted is important, but too much flexibility may require renotifying landowners or amending the CPCN.

Sen. Harris asked if the 500 foot limit by PSC is set in statute or administrative regulation.

Mr. Samford said it is not in statute, it is a commission order. PSC allows a 1000 foot corridor that is not directly contemplated by the statute.

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Sen. Harris asked if the law should be changed to widen the corridor.

Mr. Samford said he did not feel that the law needed to be changed. If the need for a wider corridor arises, the transmission owner can petition PSC for the allowance.

Sen. Harris asked if historic properties were included in Geographic Information System data.

Ms. O'Donnell said she thought that was addressed.

Sen. Harris asked for a definition of a member of the public.

Mr. Samford said it is defined in statute as a person who has interest in the proceeding.-

Sen. Harris asked what, if any, changes needed to be made to Senate Bill 246.

Ms. O'Donnell responded that she saw no changes needed to the current process.

Mr. Samford said the siting process in Kentucky was better than in surrounding states.

Mary Jane Warner said East Kentucky Power supports the report's three recommendations. She said that the siting model used is an overview not to be changed on a case-by-case basis, and that the land use data change because the locations change. The weightings in the model are meant to be applicable to all projects in Kentucky. The data used have to be definable in each case. She said that East Kentucky Power takes the report's third recommendation as being a programmatic review and feel this would be helpful and eliminate conflict as to what issues should be considered and which should not. It will also help in determining the quality of the data. The model and methodology should remain constant and not change from case to case.

She said East Kentucky Power has a concern with the potential serious conflict between the typical limits PSC allows on the adjustment of the route and the mitigation requirements mandated by agencies administering NEPA compliance. If the transmission line is thought to have some adverse affect on a natural resource, East Kentucky Power is required to try and mitigate it. This sometimes requires sufficient relocation to avoid adverse effect on the resource. In this case, East Kentucky Power would have to reapply for a CPCN certificate. This is costly and delays needed projects. East Kentucky Power would like to see a better way to work out conflicting requirements, such as widening the corridor to one-half mile instead of 500 feet. This would allow the utility to work within that corridor to make any necessary changes without having to reapply for another certificate.

Ms. Warner said another issue is the absence of guiding principles for transmission development in Kentucky. PSC's decision criteria change on a case-by-case basis and East Kentucky Power would like to see consistent guidelines set for obtaining a CPCN. The siting model is excellent in determining the physical aspects of a good route; however, there are issues

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that the model does not address and PSC should clarify, such as the conditions to determine relocation or co-location of a line and issues outside PSC's jurisdiction in acquiring a certificate. She would like to see consistency and continuity in the process from PSC and feels this could be helpful for the success of providing transmission where it is needed.

Ed Staton said that he agreed with the report's recommendations and supported the comments by Ms. Warner regarding the model. He said there should be more flexibility in the corridor width. He explained that errors in landowner addresses obtained from the local property valuation administrator can hinder the notification process and that this issue should be considered. He said that the 120-day time limit should be maintained.

Rep. Butler asked if health effects were considered in determining the co-location of transmission lines.

Ms. Warner said that the distance one is away from the wire is more important than the voltage amount of the wire. The amount of electricity flowing through the wire is the key factor in the level of exposure. There are no standards set by the regulatory agencies, but it is a concern. She said there are many ways to co-locate lines without heightening the level of exposure.

Rep. Bulter asked how the line going through Fort Knox was handled.

Robbie Trimble said there were certain criteria from Fort Knox that had to be met concerning right-of way and environmental issues.

Rep. Rand made the motion to adopt the report and Rep. Simpson seconded. The report *Siting of Electric Transmission Lines* was adopted without objection by roll call vote.

Cindy Upton presented the report *Kentucky Housing Corporation*.

Ms. Upton said the two objectives for the report were: 1) to determine whether the corporation administers funding appropriately and effectively and 2) to determine whether the corporation's procedures maximize efficiency in satisfying its objectives and assess possible limitations of the system.

The Kentucky Housing Corporation (KHC) was formed in 1972 and its major responsibilities are to assess housing needs of Kentuckians, administer rental housing assistance for low-income families, construct multifamily housing for low-income families, provide affordable mortgages for low- and moderate-income families, and administer housing for special-needs populations.

Ms. Upton said that in 2006 approximately 17 percent of Kentuckians had low income and unaffordable housing. This estimate does not include homeless individuals. The corporation made over \$515 million in mortgage loans to over 5,000 families. These mortgages are funded mostly with proceeds from tax-exempt bonds. The corporation borrows money from investors in the bond market to originate the loans. The mortgage payments received from the borrowers are then paid back to the bondholders, plus interest.

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