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August 15, 2014

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PUBLIC SERVICE
COMMISSION

Via Hand-Delivery

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

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

Dear Mr. Derouen:

Enclosed please find for filing with the Commission in the above-referenced case an original and ten (10) copies of East Kentucky Power Cooperative, Inc.'s Brief. Please return a file-stamped copy to me.

Do not hesitate to contact me if you have any questions.

Very truly yours,

David S. Samford

Enclosures

M:\Clients\4000 - East Kentucky Power\1350 - Harold Barker Complaint -
PSC Case No. 2013-00291\Correspondence\Ltr. to Jeff Derouen - 140815

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PUBLIC SERVICE
COMMISSION

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

HAROLD BARKER; ANN BARKER)	
AND BROOKS BARKER)	
)	
COMPLAINANTS)	
)	
V.)	Case No. 2013-00291
)	
EAST KENTUCKY POWER)	
COOPERATIVE, INC.)	
DEFENDANT)	

BRIEF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Comes now East Kentucky Power Cooperative, Inc. ("EKPC"), by counsel, pursuant to the April 7, 2014 and July 24, 2014 Orders of the Kentucky Public Service Commission ("Commission"), and for its brief in the above-captioned case, respectfully states as follows:

I. INTRODUCTION

The relief sought by Harold Barker, Ann Barker and Brooks Barker (the "Barkers"), is premised upon the Commission making four findings, including that: (1) a Certificate of Public Convenience and Necessity ("CPCN") was required for the entirety of the 18.5 mile Smith-North Clark Transmission Line project undertaken by EKPC in 2006 (the "Project"); (2) the Barkers were deprived of an opportunity to present their concerns regarding the alleged impact of the Project to their health and safety; (3) the Barkers' alleged health and safety concerns are legitimate; and (4) costly remedial action is necessary. The question of whether a CPCN was

necessary is separate and distinct from the question of whether the transmission line presents a legitimate safety concern – these questions arise under different statutes (KRS 278.020 and KRS 278.260) and the “remedies” available for each are also governed by separate statutory authorities (KRS 278.280 and KRS 278.990). By way of an Order entered on April 7, 2014, the Commission has already determined that if a CPCN was required for the entire Project, then the Barkers were denied an adequate opportunity to express their health and safety concerns. However, after developing an extensive record and holding a hearing lasting two full days, the Barkers have not put forth sufficient evidence to demonstrate that: (1) a CPCN was required for the entire Project; (2) their health and safety concerns are legitimate; or (3) the extraordinary relief they seek should be granted. Having failed to satisfy their burden of proof, the Barkers’ complaint must be dismissed with prejudice.

II. BACKGROUND

A. Factual Background

The transmission line which is the subject of this case was first constructed by EKPC in the 1950’s and provided 69kV transmission line service to several distribution substations in Clark County. The line was located on a 100-foot wide right-of-way, and consisted of 3 conductors and 2 overhead ground wires attached primarily to wooden H-frame structures, with some three pole structures.¹ In anticipation of the construction of the original line, EKPC acquired several transmission line easements, including two which involve the parcels owned by the predecessors-in-interest of Harold and Ann Barker.² EKPC contemplated that future system needs would one day render the original 69kV transmission line inadequate, and so the easements negotiated and acquired by EKPC in the 1950s were intentionally written very

¹ See Direct Testimony of Mary J. Warner, P.E. (“Warner Testimony”), p. 5 (filed June 2, 2014).

² Although Brooks Barker, the son of the Harold and Ann Barker, is not an owner of the parcels in question, he is one of the complainants in this proceeding.

broadly. Under the easements, EKPC acquired the right to “survey, construct, reconstruct, extend, repair, enlarge, operate, maintain and inspect” its transmission line.³

Approximately twenty years after EKPC constructed the original 69kV transmission line, the Barkers acquired property over which the transmission line crossed.⁴ Due to the topography and karst features of the Barkers’ property, only a small portion of the land was suitable for a dwelling.⁵ This location included property within EKPC’s existing easement and so, in late 1973, the Barkers requested that EKPC personnel come to their property to assure that the residence the Barkers intended to construct would not physically encroach on EKPC’s easement.⁶ The residence was completed in 1974 and remained outside, but immediately adjacent to, EKPC’s easement.⁷ At the time the residence was completed, a carport was also constructed that encroached approximately three feet onto EKPC’s easement.⁸ When a garage was added in 1983, it also encroached onto EKPC’s existing easement by approximately six feet.⁹

EKPC concluded in 2005 that the transmission system in this portion of its system needed enhancements to address both real-time and anticipated problems. That summer, EKPC experienced frequent overloading of the Avon 345kV/138kV, 450 MVA autotransformer and anticipated that such overloading would continue in the future.¹⁰ In addition, EKPC was concerned with potential instability of the existing combustion turbines at the J.K. Smith

³ See Staff Hearing Exhibit 1. At the hearing, Brooks Barker stated that he believed the easement’s terms were “vague.” Hearing Video Record (“HVR”) 11:05:39 AM (July 1, 2014).

⁴ See Barkers’ Response to the Commission’s Data Request 1(c) (filed Nov. 21, 2013).

⁵ See HVR 15:35:16 (July 1, 2014).

⁶ See Barkers’ Response to EKPC’s Data Request 1 (filed May 12, 2014).

⁷ See Barkers’ Response to the Commission’s Data Request 1(c).

⁸ See HVR 15:28:46(July 1, 2014); Warner Testimony, p. 22.

⁹ See Barkers’ Response to the Commission’s Data Request 1(b); Warner testimony, p. 22.

¹⁰ See Warner Testimony, p. 6.

Generating Station (“Smith”), giving rise to a North American Electric Reliability Council (“NERC”) compliance concern, and the growing risk of a material economic impact in the event of a loss of the Avon 345/138kV transformer.¹¹ As Ms. Mary Jane Warner testified:

Previously, EKPC had been willing to accept the risk of losing one or more of the Smith Units due to their quick start capabilities, and the relatively low total generating capacity at risk. Over time, the generation added at Smith and the diminished certainty of power import capability resulted in greater vulnerability to a disturbance caused by instability. Such an event could have resulted in the sudden loss of over 800MW instantaneously, which far exceeded the contingency provisions EKPC had at the time through the ECAR Automatic Reserve Sharing Program. In the event of a failure of the Avon transformer, the time required for replacement was estimated to be 1 – 18 months, and resulting redispatch costs (to shift generation from Spurlock to Smith) were estimated at \$14 million to \$22 million per month. Mitigation measures were taken to reduce the overload and risk, but none acceptably alleviated the Avon transformer constraint during times of heavy north to south flows on the transmission system, as a result of off-system contract power purchases. The construction of additional networked 345kV facilities was necessary to provide long-term relief for the overload and a robust solution for sustaining power flows without the disruption to generator dispatch for the long-term.¹²

Thus, the Project was conceived to provide a 345kV circuit from Smith to a junction in the existing Spurlock – Avon 345kV transmission line in order to manage critical power flow congestion.¹³ Although EKPC had not yet determined the precise location of the Project’s route, EKPC sought an advisory opinion from Commission Staff on October 7, 2005 as to whether a CPCN would be necessary. In the letter, EKPC indicated that it planned to construct a 69kV/345kV line that would replace and upgrade the existing 69kV line.¹⁴ EKPC also indicated that, in six locations where landowners had constructed structures immediately adjacent to the

¹¹ See *id.*, pp. 6-7.

¹² See *id.*, p. 7.

¹³ See *id.*, p. 4.

¹⁴ See EKPC Answer and Motion to Dismiss, Exhibit 1 (filed Oct. 10, 2013).

existing easement, it would acquire the additional fifty feet of easement necessary to accommodate the upgraded line on the side of the easement farthest from the adjacent structure.¹⁵ EKPC also anticipated two locations where new centerline would be necessary – one to bypass the existing Hunt substation and one to connect the 345kV line to the new North Clark substation.¹⁶ The Commission Staff issued an advisory opinion on October 26, 2005 which stated:

Based upon its review of [KRS 278.020(1) and (2)], Commission Staff is of the opinion that the proposed construction is a replacement and upgrading of an existing transmission line and will not require a certificate of public convenience and necessity. The proposed line and supporting structures generally do not supplement or expand existing electric transmission lines, but rather replaces those transmission lines and supporting structures with higher voltage lines and the required supporting facilities. With minor deviations, the proposed transmission line follows the same route and is situated on the same right of way as the existing transmission line that it will replace. While the proposed upgrade will require the construction in two instances of additional transmission line, the length of this line will not exceed 5,280 feet.¹⁷

To determine the best location for the 345kV circuit, EKPC used the Transmission Line Siting Methodology developed by the Electric Power Research Institute (“EPRI”) in conjunction with Georgia Transmission Corporation (“GTC”), and Photo Science, Inc. (“Photo Science”), which optimizes modeling that includes land use and feature data over a large area to identify and rank paths of least impact.¹⁸ Altogether, 166 alternative routes were evaluated.¹⁹ The five best alternatives were evaluated as part of the EPRI/GTC “Expert Judgment” process – all but

¹⁵ *See id.*

¹⁶ *See id.*

¹⁷ *See id.*

¹⁸ *See Warner Testimony*, p. 9.

¹⁹ *See id.*, p. 10.

one of these alternatives crossed the Barkers' property.²⁰ The final route selected was substantially identical to the existing 69 kV route, with a few exceptions. In the vicinity of the Sideview/North Clark substation, EKPC built 3,755 feet of new 345kV line that diverged from the 69kV circuit.²¹ The other deviation was located in the vicinity of the Hunt substation and included 6,975 feet of new right-of-way;²² however, all but 559 feet of this new right-of-way was very clearly part of the replacement and upgrade of the existing line.²³ Altogether, only 2,434 feet of the new 345kV line that could not be considered as either a replacement or an upgrade of the existing line was located on property not owned by EKPC.²⁴

All landowners owning property within one-quarter mile of the proposed route were notified by mail of the Project and received a packet of information about the Project and an invitation to attend an open house to discuss the Project with EKPC staff.²⁵ The Barkers received such a mailing and attended and participated in the open house held on November 10, 2005.²⁶ Shortly after the open house, EKPC began negotiating with individual landowners to acquire an additional fifty feet of right-of-way that was necessary to accommodate the Project.²⁷ The vast majority of affected landowners agreed to terms and the expanded easements were acquired without resort to formal legal process.²⁸ As detailed above, EKPC made one significant deviation (6,975 feet) from the existing right-of-way in the case of the transmission line's

²⁰ *See id.*, pp. 10-11; EKPC's Response to Barkers' Data Request 58, Exhibits MJW-4 and MJW 4(a) – (e) (filed June 23, 2014).

²¹ *See* Warner Testimony, p. 18 and Exhibit MJW-3.

²² *See id.*, Exhibits MJW-1 and MJW-2.

²³ *See id.*

²⁴ *See id.*, p. 19.

²⁵ *See id.*, p. 19; HVR 13:27:35 (July 8, 2014).

²⁶ *See* Barkers' Testimony, p. 3.

²⁷ *See* Warner Testimony, p. 19.

²⁸ *See* HVR 14:50:10 (July 8, 2014).

passage over land owned by the Violet Foley Estate. However, EKPC was able to satisfy the landowner and save \$116,500 as a result of the deviation.²⁹ A similar opportunity to make a deviation in the vicinity of the North Clark Substation resulted in another \$26,700 in savings.³⁰ The location of each of these deviations is several miles from the Barkers' property.³¹ Overall, EKPC was unable to reach an accord with just a few landowners, which required the filing of condemnation actions in the Clark Circuit Court in 2006.³² The Barkers were among the small group of landowners against whom EKPC was forced to initiate a condemnation proceeding.³³

Although EKPC spent considerable time trying to satisfy the Barkers, it proved impossible to reach a negotiated settlement. Due to the encroachment of the Barkers' carport and garage upon EKPC's existing easement, EKPC voluntarily stated that it would shift the Project easement 50 feet to the east so as to not have the Barkers' structures encroach any further than was already the case.³⁴ Also, at the Barkers' request, EKPC removed a pole structure that was located between their residence and U.S. 60, so that the next structure was located 500 feet further North along the line.³⁵ The increased span distance required EKPC to install larger, more expensive poles to accommodate the Barkers' request, but these costs were not passed on to the Barkers.³⁶ Moreover, after some concerns were expressed about the disposition of certain trees on the Barkers' property, EKPC agreed that it would leave all felled timber for the Barkers and would reimburse them for the cost of planting new trees to replace those cut in front of their

²⁹ See Warner Testimony, p. 14.

³⁰ See *id.*

³¹ See *id.*, p. 17; HVR 11:29:52 (July 1, 2014).

³² See HVR 14:50:10 (July 8, 2014).

³³ Harold and Anne Baker are parties to the Condemnation Case. Brooks Barker is not an owner of the property.

³⁴ See Warner Testimony, p. 22; HVR 10:43:00; 13:29:15 (July 1, 2014).

³⁵ See Warner Testimony, pp. 24-25; HVR 10:54:57 (July 1, 2014).

³⁶ See EKPC's Response to Barkers' Data Requests 6 and 16.

home.³⁷ The Barkers' request to relocate the transmission structures on their neighbor's property were rejected by their neighbor.³⁸ EKPC's efforts to work with the Barkers included at least eight different meetings prior to filing the condemnation action,³⁹ staking the proposed transmission line,⁴⁰ and making at least three specific offers of settlement for the additional 50 foot right-of-way – all of which were rejected by the Barkers.⁴¹

As constructed, the Project upgraded the existing Smith-Hunt-Sideview transmission line to a double circuit transmission line carrying the 345kV circuit above the lower voltage circuit currently operated at 69kV.⁴² The structures and lower circuit are designed, however, with the necessary clearances to operate at 138kV, if the need should ever arise for such a change.⁴³ The replacement structures are weathering steel two- and three-pole structures with connecting horizontal members.⁴⁴ The 345kV circuit has three sets of conductor-paired bundles and the 69kV circuit has three individual conductors.⁴⁵ The line is protected by two overhead ground wires, one encasing fiberoptic cable for EKPC system communication purposes.⁴⁶ The transmission line fully complies with the National Electric Safety Code's clearance

³⁷ See HVR 10:56:05 (July 1, 2014); see also Agreed Interlocutory Judgment, EKPC Hearing Exhibit 5, p. 4.

³⁸ See HVR 13:34:50 (July 8, 2014).

³⁹ See HVR 15:46:45 (July 1, 2014).

⁴⁰ See *id.*

⁴¹ See Barkers' Response to EKPC Data Request 10.

⁴² See Warner Testimony, pp. 4-5.

⁴³ See *id.*, p. 5.

⁴⁴ See *id.*

⁴⁵ See *id.*

⁴⁶ See *id.*

requirements,⁴⁷ and the phasing of both the 345kV and 69kV circuits were set to minimize the electric and magnetic fields (“EMFs”) along the entire length of the line.⁴⁸

EKPC filed the condemnation petition in the Clark Circuit Court on July 7, 2006.⁴⁹ Although EKPC had previously offered to pay the Barkers the sum of \$37,800 to acquire the easement, the Commissioners’ Report issued on August 1, 2006 set the diminution in value of the Barker’s land resulting from the expanded easement at \$12,000, which, in accordance with Kentucky law, EKPC paid into the Court.⁵⁰ The Barkers subsequently agreed that EKPC had the right to condemn the additional fifty feet of easement necessary for the Project and signed an Agreed Interlocutory Judgment, which was entered on November 17, 2006.⁵¹ The Agreed Interlocutory Judgment is an unambiguous admission that the Barkers did not contest the location of the Project.

B. Procedural Background

The Barkers filed a formal complaint against EKPC on July 5, 2013. The complaint alleged that EKPC misled Commission Staff in the course of seeking a 2005 advisory opinion as to whether a CPCN was necessary for the Project. Specifically, the Barkers alleged that: (1) EKPC falsely claimed that the Project would consist of a 345kV/69kV configuration when in fact a 345kV/138kV installation took place; and (2) that EKPC constructed 14,697 of new centerline instead of the approximate 4,000 feet of new centerline stated in the request for an

⁴⁷ See EKPC Hearing Exhibit 9, PSC Staff Inspection Report (July 11, 2013).

⁴⁸ See Testimony of Paul A. Dolloff, Ph.D. (“Dolloff Testimony”), pp. 16-18 (filed June 2, 2014); Barkers’ Response to EKPC’s Data Request 14 (attaching an email from Sherman Goodpaster, Esq. to Susan Dunn confirming the phasing of the circuits); HVR 14:31:20 (July 1, 2014).

⁴⁹ See *East Kentucky Power Cooperative, Inc. v. Harold Barker, et al.*, Clark Circuit Court, Case No. 2006-CI-0419 (the “Condemnation Case”).

⁵⁰ See EKPC Answer, ¶ 5 (Oct. 10, 2013).

⁵¹ See EKPC Hearing Exhibit 5.

advisory opinion.⁵² The Barkers further alleged that these asserted misrepresentations resulted in the issuance of a Staff Advisory Opinion that determined that no CPCN was necessary for the Project and that this determination had the effect of depriving the Barkers of the opportunity to present their concerns to the Commission. The nature of the Barkers' concerns was described in the complaint as generally relating to "health and safety," with two examples provided – the Barkers sometimes "receive a shock if you touch the metal on a vehicle in the driveway and the EMF levels have been as high as 23 milliguass inside our home."⁵³ The Barkers requested the Commission to award two forms of relief:

We ask that *this easement be moved* far enough away from our home to eliminate the health and safety hazards that exist today and future problems when the load on these lines is increased.... We also ask to be *reimbursed for damages* caused by EKPC's construction of these lines.⁵⁴

Although there was no finding that the complaint established a *prima facie* case, the Commission nevertheless entered an Order to Satisfy or Answer on July 18, 2013, which directed EKPC, pursuant to 807 KAR 5:001, Section 19, to "satisfy the matters complained of or to file a written answer to the complaint...."⁵⁵ On July 29, 2013, EKPC filed an Offer of Settlement that recounted its prior offers of settlement in the Condemnation Case as well as a new offer of settlement, whereby EKPC would either: (1) pay the diminution in value of the Barkers' property that has occurred as a result of the condemnation of a portion of their property; or (2) purchase the Barkers' house and a mutually agreed upon lot surrounding the house.⁵⁶ Under either scenario, the price would be established by a mutually agreed upon independent

⁵² Complaint, pp. 2-3.

⁵³ *Id.*, p. 3.

⁵⁴ *Id.*, pp. 2-3 (emphasis added).

⁵⁵ Satisfy or Answer Order, p. 1 (Ky. P.S.C., July 18, 2013). Subsequent to the issuance of the Satisfy or Answer Order, 807 KAR 5:001, Section 19 was re-promulgated as 807 KAR 5:001, Section 20.

⁵⁶ EKPC's Offer of Settlement, p. 4 (filed July 29, 2013).

appraiser or by an independent appraiser selected by the Commission.⁵⁷ The Barkers formally rejected EKPC's Offer of Settlement on September 12, 2013, but pledged "to engage in meaningful settlement discussions in the presence of a representative of the Commission at a place and time convenient for all parties."⁵⁸ EKPC then filed an answer and motion to dismiss the complaint on October 10, 2013. Commission Staff thereafter tendered data requests to both the Barkers and EKPC and then set an informal conference for February 5, 2014. Despite their earlier pledge, the Barkers were unwilling to engage in any settlement discussions at the informal conference and instead requested that the Commission set a hearing date.⁵⁹ In addition, for the first time, the Barkers re-characterized the scope of the relief for which they were seeking to specifically include requiring EKPC to move the transmission line, not just the easement.⁶⁰

The Barkers new request for relief – though not accompanied by an amended complaint – was necessary in light of the points raised by EKPC in its motion to dismiss which, as of then, the Barkers had not yet addressed by way of a timely response. In the motion to dismiss, EKPC pointed out that the relief being sought by the Barkers – moving the existing transmission line easement and awarding damages – arose exclusively in the purview of property law and were not within the scope of the Commission's jurisdiction over "rates" and "services."⁶¹ In essence, the Barkers' complaint sought to re-litigate issues already pending before the Clark Circuit Court in the Condemnation Case, which is plainly improper.

In their response in opposition to EKPC's motion to dismiss, the Barkers conceded that the Commission could not award monetary damages and that this element of their complaint

⁵⁷ *See id.*

⁵⁸ Barkers' Response to EKPC's Offer of Settlement, p. 2 (filed Sept. 12, 2013).

⁵⁹ *See* Informal Conference Memorandum (Feb. 6, 2014); EKPC's Comments to the Informal Conference Memorandum (filed Feb. 10, 2014).

⁶⁰ Informal Conference Memorandum, p. 1.

⁶¹ *See* EKPC's Answer and Motion to Dismiss, pp. 5-6 (filed Oct. 10, 2013).

must be dismissed.⁶² However, the Barkers then claimed that “[n]owhere in [KRS] Chapter 278 is the PSC’s jurisdiction limited to ‘rates’ and ‘services’ as claimed by EKPC.”⁶³ This fundamental misapprehension of the Commission’s statutory purpose and mandate then manifested itself in the Barkers’ new “request that EKPC be held accountable for understating the scope of its project by being *ordered to move the portion of the new transmission line encroaching upon the Barkers’ residence a safe distance away.*”⁶⁴ The allegation that EKPC’s transmission line easement somehow encroaches on the Barkers’ residence is incontrovertibly untrue,⁶⁵ and the existence of any legitimate safety concern is, of course, strongly contested. Putting those points aside, however, the response indicates that, from the inception of this case, the nature of the relief sought by the Barkers has subtly shifted from compelling EKPC to move its transmission line easement (a property law question) to instead compelling EKPC to move its transmission line (a perceived service safety issue). However, Brooks Barker conceded at the hearing that moving the transmission line on the Barkers’ property would likely require shifting the transmission easement on at least one other property owner as well.⁶⁶

The Commission rejected the Barkers’ invitation to become involved in a property dispute in an Order entered on April 7, 2014, stating:

Claims pertaining to such property rights, *including the location and valuation of easements*, similarly fall outside the scope of the

⁶² See Barkers’ Response to EKPC’s Motion to Dismiss, p. 2 (filed Feb. 19, 2014) (“EKPC cites *Carr v. Cincinnati Bell, Inc.*, 651 S.W.2d 126 (Ky. App. 1983), for the proposition that the Barkers’ Complaint must be dismissed to the extent it seeks money damages for the harm caused by enlargement of EKPC’s line. While EKPC may be correct on this narrow point....”).

⁶³ *Id.*

⁶⁴ *Id.*, pp. 1-2 (filed Feb. 19, 2014) (emphasis added).

⁶⁵ See Notes 6-9 and accompanying text, *supra*. In the course of the hearing, the Barkers introduced an exhibit purporting to show the location of property boundaries and the proximate location of the transmission line. When EKPC objected to the accuracy of the exhibit with regard to the location of the transmission line, Mrs. Barker conceded that the Exhibit was incorrect in that respect and the exhibit was thereafter offered only for purposes of showing property boundary lines. See Barker Hearing Exhibit 6; HVR 15:42:10; HVR 15:44:00 (July 1, 2014).

⁶⁶ See HVR 10:26:06 (July 1, 2014).

Commission's jurisdiction over rates and services. Easement and condemnation issues are exclusively within the province of the circuit court's jurisdiction.⁶⁷

Instead, the Commission found that the Barkers' "remaining claims present two primary issues: first, whether EKPC was required to obtain a CPCN prior to beginning its transmission line upgrade project; second, if a CPCN was required, whether the proximity of the upgraded line to Complainants' premises presents health and safety concerns."⁶⁸ With regard to the former question, the Commission went on to state:

Thus, this case raises an issue under KRS 278.020(2) of whether: (1) a CPCN is required for an entire transmission line project when one or more segments that equal or exceed one mile in length are not replacements or upgrades; or (2) a CPCN is only required for those segments of a transmission line project which equal or exceed one mile in length that are not replacements or upgrades of an existing transmission line.⁶⁹

Both the Barkers and EKPC subsequently filed extensive direct testimony, rebuttal testimony, expert opinion reports and responses to data requests relating to the issues identified by the Commission. A public hearing was commenced on July 1, 2014 and concluded on July 8, 2014. With the simultaneous filings of briefs, the case now stands submitted for a decision.

III. ARGUMENT

A. Jurisdiction and Burden of Proof

Despite the Barkers' claims to the contrary,⁷⁰ the Commission's jurisdiction is "clearly and unmistakably limited to the regulation of rates and service of utilities." *Public Service Comm'n v. Blue Grass Natural Gas Co.*, 197 S.W.2d 765, 768 (Ky. 1946); *see also Smith v. Southern Bell Telephone and Telegraph Co.*, 104 S.W.2d 961 (Ky. 1937); *Benzinger v. The*

⁶⁷ Order, p. 5 (Ky. P.S.C., Apr. 7, 2014) (citations omitted) (emphasis added).

⁶⁸ *Id.*, p. 6.

⁶⁹ *Id.*, p. 7.

⁷⁰ *See Barkers' Response to EKPC's Motion to Dismiss*, p. 2.

Union Light Heat and Power Co., 170 S.W.2d 38 (Ky. 1943); *Peoples Gas Co. of Kentucky v. City of Barbourville*, 165 S.W.2d 567 (Ky. 1942); KRS 278.040(2). Thus, the Commission has no jurisdiction over a property dispute. See *John Kennan v. Kentucky Utilities Company*, Order, Case No. 1997-00366 (Ky. P.S.C., June 17, 1998); *In the Matter of Robert J. Arnold and Nicole R. Arnold v. Blue Grass Rural Electric Cooperative Corporation*, Order, Case No. 1994-00528 (Ky. P.S.C., Jan. 6, 1995) (“[M]atters concerning property law are within the exclusive jurisdiction of the courts of the Commonwealth.”). Rather, the Commission’s jurisdiction – as it relates to the relief requested by the Barkers – is limited to the sole question of whether the Barkers are truly confronted with a safety concern relating to the proximity of EKPC’s transmission line to their residence.⁷¹ This limitation is set forth in KRS 278.260(1), which grants the Commission “original jurisdiction over complaints as to rates or service of any utility....” Because the Barkers’ complaint relates to EKPC’s service, and not its rates, the Commission’s authority is further prescribed in KRS 278.280(1), which states:

Whenever the commission, upon its own motion or upon complaint as provided in KRS 278.260, and after a hearing had upon reasonable notice, finds that the rules, regulations, practices, equipment, appliances, facilities or service of any utility subject to its jurisdiction, or the method of manufacture, distribution, transmission, storage or supply employed by such utility, are unjust, unreasonable, unsafe, improper, inadequate or insufficient, the commission shall determine the just, reasonable, safe, proper, adequate or sufficient rules, regulations, practices, equipment, appliances, facilities, service or methods to be observed, furnished, constructed, enforced or employed, and shall fix the same by its order, rule or regulation.

As the complainants, the Barkers bear the burden of proof in this case. See *Energy Regulatory Commission v. Kentucky Power Co.*, 605 S.W.2d 46, 49 (Ky. App. 1980) (citing *Lee*

⁷¹ As the Commission correctly noted in its April 7, 2014 Order, the question of whether a CPCN was necessary for the Project must be evaluated separately from whether the Barkers’ health and safety concern can be substantiated.

v. International Harvester Co., 373 S.W.2d 418 (Ky. 1963)). Thus, in order to prevail, the Barkers must demonstrate that EKPC's service is somehow unsafe. The record of the case amply demonstrates that the Barkers have failed to satisfy this evidentiary threshold. In fact, they have not even demonstrated that they were deprived of the opportunity to present their health and safety concerns. Accordingly, for the reasons set forth below, the complaint should be dismissed with prejudice.

B. No CPCN was Required for the Project

1. Statutory Construction of KRS 278.020(2)

As stated in the Commission's April 7, 2014 Order, the first issue is "whether EKPC was required to obtain a CPCN prior to beginning its transmission line upgrade project...." This issue presents a mixed question of law and fact. As for the legal aspect of the issue, the CPCN requirement is set forth in KRS 278.020(1), which states in relevant part:

No person, partnership, public or private corporation, or combination thereof shall...begin the construction of any plant, equipment, property, or facility for furnishing to the public any of the services enumerated in KRS 278.010, 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 require the service or construction.

While the phrase "ordinary extensions of existing systems in the usual course of business" has been clarified and specifically defined by the Commission in 807 KAR 5:001, Section 15(3), the Commission's definition does not apply to electric transmission line projects because the General Assembly chose instead to expressly define what constitutes an "ordinary extension of an existing system in the usual course of business" in this particular context. The statutory definition of an electric transmission line ordinary course extension is expressly set forth in KRS 278.020(2), which states as follows:

- (2) For the purposes of this section, 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 certificate of public convenience and necessity. 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.

Determining whether EKPC was required to seek and obtain a CPCN prior to commencing construction on the Project therefore requires the Commission to: (1) construe the statute; and (2) apply the facts set forth in the record to the statute. In construing KRS 278.020(2), the fundamental rule is to give effect to the legislative intent as expressed in the statute. *See Kentucky Indus. Utility Customers, Inc. v. Kentucky Utilities Co.*, 983 S.W.2d 493, 500 (Ky. 1998). Moreover, the Commission must give each term its plain and ordinary meaning. *See KRS 446.080(4); Coffey v. Wethington*, 421 S.W.3d 394, 398 (Ky. 2014) (“Thus, we first look at the language employed by the legislature itself, relying generally on the common meaning of the particular words chosen.”) (*quoting Jefferson Cnty. Bd. of Educ. v. Fell*, 391 S.W.3d 713, 718 (Ky. 2012)). Additionally, all provisions of KRS 278.020(2) must be construed harmoniously, so as to give equal effect to each element of the statute. *See King Drugs, Inc. v. Com.*, 250 S.W.3d 643, 645 (Ky. 2008) (“We presume, of course, that the General Assembly intended for the statute to be construed as a whole and for all of its parts to have meaning.”). The Commission may not add to the statute or supply language to cure any omission of the

General Assembly, whether real or perceived. *See Com. v. Harrelson*, 14 S.W.3d 541, 546 (Ky. 2000) (“Where a statute is intelligible on its face, the courts are not at liberty to supply words or insert something or make additions which amount to providing, as sometimes stated, for a *casus omissus*, or cure an omission.”).

To a large degree, the question of statutory construction has already been addressed in the Commission’s April 7, 2014 Order, where the Commission stated, “[a] CPCN is required for construction of a transmission line of 138 kilovolts (“kV”) or more and that is one mile or more in length. However, replacement and upgraded lines are specifically exempted from the requirement to obtain a CPCN, regardless of voltage or length.”⁷² EKPC generally agrees with the Commission’s construction, but with one important caveat.

In support of the Commission’s construction, EKPC notes three points. First, EKPC believes the Commission correctly construed the statute to mean that any electric transmission construction falling within one of the three statutory safe harbors, (i.e. sub-paragraphs (a)-(c) of KRS 278.020(2)) would qualify as an ordinary extension of an existing system in the usual course of business. Second, of those three safe harbor provisions, only sub-paragraph (a) – relating to “the replacement or upgrading of any existing electric transmission line” – would apply to this case. Third, EKPC agrees with the point illustrated by a line of questioning from Vice-Chairman Gardner at the hearing, which confirmed that within sub-paragraph (a) of the statute, neither the word “replacement” nor the word “upgrade” is statutorily defined. Accordingly, they must be afforded their common, ordinary meaning.

In fact, “[t]he plain meaning of the statutory language is presumed to be what the legislature intended, and if the meaning is plain, then the court cannot base its interpretation on any other method or source.” We “ascertain the intention of the legislature from words used in enacting statutes rather than surmising what may have been

⁷² Order, p. 6 (Ky. P.S.C., Apr. 7, 2014) (citations omitted).

intended but was not expressed.” In other words, we assume that the “[Legislature] meant exactly what it said, and said exactly what it meant.”

Revenue Cabinet v. O'Daniel, 153 S.W.3d 815, 819 (Ky. 2005) (citations omitted).

According to the *Merriam-Webster Dictionary*, “replacement” means “1: the act of replacing : the state of being replaced 2: one that replaces another esp. in a job or function,” and “upgrade” means: “1: to rise to a higher grade or position; esp. : to advance to a job requiring a higher level of skill 2: to improve or replace (as software or a device) for increased usefulness.”⁷³ On the witness stand, the Barkers’ engineering expert, Mr. John C. Pfeiffer, conceded that the word upgrade has an expansive meaning, stating, “it’s a pretty broad area as to what is an upgrade.”⁷⁴ Indeed, according to him, an upgrade could include: (1) the re-conductoring of a transmission line to a higher capacity; (2) installing parallel lines; or (3) increasing the voltage of a line.⁷⁵ With these definitions in mind, it is readily apparent that all but very short segments of the Project qualify as either or both a replacement or upgrade of the original 69kV transmission line, and that these segments – measured individually and cumulatively – are less than one mile in length.

EKPC’s sole caveat to the Commission’s April 7, 2014 interpretation of the statutes has to do with the statement, “...replacement and upgraded lines are specifically exempted from the requirement to obtain a CPCN, *regardless of voltage or length*.”⁷⁶ EKPC believes the statement is correct, but respectfully submits that KRS 278.020(2)(a) should not be construed solely with voltage or line length in mind. Neither of those terms is included in the statute and, therefore,

⁷³ *Merriam-Webster Dictionary*, pp. 423, 543 (2005).

⁷⁴ See HVR 14:05:00 (July 1, 2014). Mr. Pfeiffer specifically referenced Webster’s Dictionary as being an authoritative source for defining the term “upgrade.” See HVR 14:55:06 (July 1, 2014).

⁷⁵ See HVR 14:55:16 (July 1, 2014).

⁷⁶ Order, p. 6 (Ky. P.S.C. Apr. 7, 2014) (emphasis added).

they cannot be the sole determinative factors in whether a particular project constitutes a “replacement” or “upgrade.” Simply put, there is no express legislative limitation on the breadth of the terms “replacement” or “upgrade.” For instance, a replacement transmission line may still serve the same purpose as an original transmission line, even if it is not exactly in the same location as the original line. Thus, a specific transmission line may qualify as a “replacement” or “upgrade” of an existing line regardless of its voltage, length, location or any other particular physical characteristic. A consideration of the nature and purpose of the new line is required to determine whether it is a “replacement” or “upgrade” of an existing line.

The Barkers disagree with KRS 278.020(2) for this very reason. In their testimony, they stated:

We believe KRS 278.202(2) is majorly flawed in that a utility company is allowed to build any size transmission line as long as it is constructed on some form of an existing easement and would not require a CPCN. We are a prime example of the possible problems created by this statute.⁷⁷

The Barkers’ argument, however, concerns what the law should be (in their opinion), while conceding, in essence, that EKPC’s understanding of the statute is appropriate and correct. Normative arguments regarding what Kentucky law should say should be addressed to the General Assembly and not to the Commission, whose task is to apply and enforce the law, not to rewrite it at a complainant’s request.

The Barkers will likely argue that because the location of the original 69kV line changed in a couple of locations, the line loses its characteristic as a replacement or upgrade of the original line.⁷⁸ To prevail in that argument, however, the Barkers must read a limitation into KRS 278.020(2)(a) which is simply not expressed. As set forth above, neither the Barkers nor

⁷⁷ Barker Testimony, p. 9.

⁷⁸ See HVR 11:25:21 (July 1, 2014).

the Commission are permitted to interpret a statute in such a way as to effectively amend it. The question of whether a new transmission line is a replacement or upgrade of an existing transmission line cannot be based upon any single circumstance. To do otherwise would violate both the letter and spirit of KRS 278.020(2)(a).

2. The Project was a “Replacement” and “Upgrade” of the Existing Line

The foregoing discussion of the statutory construction of KRS 278.020(2)(a) enables the Commission to apply the facts set forth in the record to determine whether a CPCN was necessary for the Project. At the outset of this analysis, it should be noted that there is considerable agreement between the parties on this issue. For instance, the Barkers’ engineering expert opined that “[e]ngineering interpretation of portions of KRS 278 fall into the class where Engineering interpretation is a valid duty of an engineer and does not require the interpretation of a legal staff.”⁷⁹ This is consistent with the testimony of Ms. Warner, on behalf of EKPC, that the professional judgment of an engineer and common sense must be used to determine whether a project qualifies as either a “replacement” or an “upgrade.”⁸⁰ To do this, Ms. Warner stated, one must look at the overall nature and purpose of the new transmission line.⁸¹ Undertaking this analysis leads to the inescapable conclusion that – with only two *de minimis* exceptions – the Project was indeed a replacement and upgrade of an existing transmission line. No CPCN was required for the Project, as evidenced by multiple undisputed facts.

⁷⁹ See Expert Opinion Report of John Pfeiffer, p. 20 (filed April 25, 2014), EKPC Hearing Exhibit 3 (hereinafter, “Pfeiffer Report”).

⁸⁰ See Warner Testimony, p. 11; EKPC’s Response to Barkers’ Data Request 14(a).

⁸¹ See Warner Testimony, p. 11.

First, the Barkers' own engineering expert conceded that the Project was a replacement.⁸² Elsewhere, he characterized the portion of the Project crossing the Barker's property as an upgrade.⁸³

Second, although the conductor for the lower circuit is insulated to operate as a 138kV line, the record clearly demonstrates that it is operated as a 69kV line and cannot function as a 138kV line without significant changes to the substations along the line and the line's points of origin and termination.⁸⁴ Since the CPCN requirement is only triggered for transmission lines of 138kV or greater, KRS 278.020 does not apply to the 69kV circuit regardless of whether the line is a replacement or upgrade. The Commission could only find that the CPCN requirement may possibly apply to the 69kV circuit because the line is insulated and constructed to a 138kV clearance specification. Yet, such a perspective would require the Commission to disregard the uncontroverted fact that the line is not physically capable of operation at 138kV. A finding that a transmission line that is incapable of operating at 138kV must nonetheless be granted a CPCN is plainly inconsistent with KRS 278.020(2). Moreover, this finding would create a significant disincentive for utilities to take a long-term view of their transmission systems and to make wise, long-term investments. The record in this case demonstrates that for an incremental cost of only 2% of the Project's cost, EKPC was able to avoid the future need to – once again – replace the transmission line to upgrade to a higher voltage.⁸⁵

Third, even if the Commission were to deem the present 69kV line as a 138kV line that could be subject to the CPCN requirement, then the record still clearly establishes that the rebuilt line was a replacement and upgrade of the original transmission line. The 69kV line operates in

⁸² See Barkers' Responses to EKPC Data Request No. 55.

⁸³ See HVR 14:45:22 (July 1, 2014).

⁸⁴ See EKPC's Response to Barkers' Data Request 7; HVR 14:02:38 (July 8, 2014).

⁸⁵ See HVR 14:32:38 (July 8, 2014).

the same manner, for the same purpose and generally in the same location as the original line.⁸⁶ The Barkers have offered no evidence that the 69kV line is somehow distinguishable from the original line.

Fourth, the 345kV transmission line is an upgrade of the original transmission line to the extent that it is co-located with the replacement 69kV transmission line. The co-located 345kV circuit shares the same right-of-way and structures as the 69kV line, but is designed, constructed and operated for a higher voltage.⁸⁷ This enhanced capability – the “increased usefulness,” as *Webster’s* put it – renders the 345kV circuit an upgrade over the original transmission line,⁸⁸ which is exactly what Staff concluded in 2005.⁸⁹

Fifth, the only portions of the new 345kV transmission line that are not co-located with the 69kV line are less than one mile in length. As detailed by Ms. Warner, 3,755 feet of the 345kV line diverges from the 69kV line in order to most efficiently reach the new North Clark substation.⁹⁰ Of this digression, however, only 1,875 feet is actually located on property owned by someone other than EKPC.⁹¹ Likewise, the 345kV transmission line’s deviation from the 69kV line in the area adjacent to the Hunt Substation amounts only to 559 feet of line that is neither a replacement nor an upgrade of the original line.⁹² When these two deviations are added together, the 4,314 feet of new 345kV transmission line that is neither a replacement nor

⁸⁶ See HVR 13:41:00; HVR 14:21:51; HVR 14:23:16 (July 8, 2014).

⁸⁷ See HVR 14:22:02; HVR 14:47:05 (July 8, 2014).

⁸⁸ See HVR 13:41:00; HVR 14:21:51; HVR 14:23:16 (July 8, 2014).

⁸⁹ See Note 17 and accompanying text, *supra*.

⁹⁰ See Warner Testimony, pp. 11-12.

⁹¹ See *id.*, p. 12.

⁹² See *id.*, p. 11.

an upgrade of an existing line is clearly less than one mile in length and the CPCN requirement would not be triggered.⁹³

Sixth, 1,880 feet of the 4,314 feet of new 345kV transmission line that may not be considered a replacement or an upgrade of the original line is situated upon property specifically acquired by EKPC for purposes of constructing the North Clark Substation.⁹⁴ Transmission lines constructed upon a utility's own property should not trigger a CPCN under any circumstance.

Seventh, the implication of the Barkers' claim and testimony is that EKPC was, for some unexplained reason, eager to misrepresent the Project to Commission Staff and ignore the mandates of the newly enacted requirement to obtain a CPCN for transmission line projects. This suggestion is squarely contradicted by the Commission's own records. With regard to the request for an advisory opinion, it is uncontroverted that at the time EKPC sought the advisory opinion, it did not yet know the precise path of the transmission line.⁹⁵ EKPC's estimation that approximately 4,000 feet of new centerline would be necessary, proved to be incorrect in an absolute sense, but it is consistent with the fact that only 4,314 feet of the new centerline may not be considered a replacement or upgrade of the existing line. Likewise, EKPC correctly stated in the request for the advisory opinion that it was planning to construct a 69kV/345kV line, as that is the only physical operation of the transmission line that is possible.⁹⁶ With regard to the suggestion that EKPC sought to ignore its regulatory obligation to seek a CPCN for certain transmission projects, the Commission's docket demonstrates that EKPC filed no less than five CPCN applications for transmission line projects between 2004 and 2007.⁹⁷ EKPC was diligent

⁹³ *See id.*, p. 12.

⁹⁴ *See Warner Testimony*, p. 12.

⁹⁵ *See id.*, pp. 8-9.

⁹⁶ *See id.*, pp. 4-5.

in conforming to the requirements of the new statute and most certainly cannot be accused of trying to willfully mislead the Commission or avoid a statutory mandate.

For each and every one of these reasons, the Commission should find that the CPCN requirements of KRS 278.020(1) do not apply to the Project and that no CPCN was required.

3. If a CPCN was Required for Any Portion of the Project, it Should be Limited to those Locations Where Deviations from the Existing Right-of-Way Occurred.

Although the record demonstrates that the entire Project qualifies for one or more of the statutory safe harbors set forth in KRS 278.020(2), the Commission's April 7, 2014 Order raises a question as to whether – if a CPCN was necessary – it would have been needed for the entire Project or just the locations where the rebuilt and upgraded line deviated from the pre-existing easement. EKPC believes that this issue is moot and need not be addressed as it is unnecessary to resolve the two primary issues before the Commission; however, should the Commission determine that a CPCN was necessary, then the question of the scope of the CPCN that should have been sought must also be addressed. Implicit in the question raised by the Commission is the assumption that any deviation from the existing right-of-way of a transmission line somehow causes a rebuilt circuit to lose its status as a replacement or upgrade. EKPC notes that this implication is not expressed anywhere within KRS 278.020(2)(a) and is therefore a false premise. As set forth above, whether a new line is a replacement or upgrade cannot rest upon

⁹⁷ See *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 161 kV Electric Distribution Substation and Tap In Spencer County, Kentucky*, Case No. 2004-00320 (filed Dec. 14, 2004); *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of 138 kV Electric Transmission Line in Rowan County, Kentucky*, Case No. 2005-00089 (filed Apr. 21, 2005); *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 161 kV Electric Transmission Project in Barren, Warren, Butler and Ohio Counties, Kentucky*, Case No. 2005-00207 (filed July 1, 2005); *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of 138 kV Electric Transmission Line in Rowan County, Kentucky*, Case No. 2005-00458 (filed Dec.8, 2005); and *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 345 kV Electric Transmission Project in Clark, Madison, and Garrard Counties, Kentucky*, Case No. 2006-00463 (filed May 22, 2007).

any single factual determination. An analysis of all relevant factors – the totality of the circumstances as evidenced by the nature and purpose of the new line – must be taken into account. Otherwise, it is possible that absurd outcomes may result.

EKPC believes that requiring a CPCN for the entirety of a transmission line project, when any portion of the project qualifies for one of the statutory safe harbors, would be a violation of KRS 278.020. The statute clearly exempts replacements and upgrades from the CPCN requirements. Requiring a CPCN for a line segment that is clearly a replacement or upgrade of an existing line would amount to an administrative repeal of KRS 278.020(2)(a) and would be unlawful. If a statutory safe harbor does not shield the entirety of a project from the CPCN requirement, then the CPCN requirement could only be lawfully imposed upon those segments of the transmission line project which are: (1) neither a replacement nor upgrade (or covered by one of the other safe harbors in KRS 278.020(2)); (2) designed, constructed and operated at 138 kV or greater; and (3) one mile or greater in length. Any other interpretation would elevate the general rule of KRS 278.020(1) over the specific safe harbors of KRS 278.020(2) and, thereby, disregard the General Assembly's express legislative intent. *See Public Service Comm'n of Kentucky v. Com.*, 320 S.W.3d 660, 668 (Ky. 2010) (“The courts will not interpret a portion of a statute in a way that would render other parts of the same statute or the larger statutory scheme meaningless.”) (*citing Lewis v. Jackson Energy Cooperative Corporation*, 189 S.W.3d 87 (Ky. 2005)).

Yet even this limiting interpretation still opens the door for absurd outcomes to result. As described in Ms. Warner's testimony, “utilities would, in essence, be punished for working with landowners to make reasonable accommodations for right-of-way deviations if any such

deviation, or the sum of all such deviations, was to exceed a mile.”⁹⁸ Accordingly, utilities would be very cautious about working with landowners to make reasonable accommodations for fear that their customers would be subject to additional costs arising from the CPCN proceeding and the potential delay of a project.⁹⁹ Moreover, a utility would have to arbitrarily pick and choose which deviations it might be willing to accommodate so as to stay under a cumulative deviation cap of less than one mile,¹⁰⁰ which would undercut the routing objectivity intended to be achieved through planning tools such as the EPRI Siting Model.¹⁰¹

As it relates to this case, the Barkers’ engineering expert admitted that the transmission line segment crossing the Barkers’ property is an upgrade of the original line.¹⁰² Thus, no CPCN was required for that particular line segment.

4. Summary

EKPC does not believe it is necessary for the Commission to determine whether the CPCN requirement should apply to the entire length of a project or just to individual segments of that line that do not otherwise satisfy the statutory safe harbors because, in this case, each segment of the transmission line satisfies one or more of the safe harbors or is otherwise less than one mile in length, both individually and cumulatively. Nevertheless, should the Commission decide that it is necessary to reach this issue, EKPC posits that it would be unlawful to interpret KRS 278.020(2) in such a way that a line segment qualifying for the statutory safe harbors must still be subject to CPCN review. Only those segments not qualifying for a statutory

⁹⁸ Warner Testimony, p. 15.

⁹⁹ *Id.*

¹⁰⁰ *See id.*, pp. 15-16.

¹⁰¹ *See id.*, pp. 8-10.

¹⁰² *See HVR 14:45:15 (July 1, 2014).*

safe harbor could trigger the CPCN requirement. In this particular matter, each such individual segment qualifies for a statutory safe harbor and the complaint should be dismissed.

C. The Project Does Not Present a Health or Safety Concern to the Barkers

The main thrust of the Barkers' complaint is their contention that they are being exposed to an unsafe condition due to the proximity of the 69kV/345kV transmission line that crosses their property.¹⁰³ The alleged danger manifests itself in three ways, according to the Barkers: (1) elevated EMF fields;¹⁰⁴ (2) heightened risk of malfunctions in pacemakers and medical implant devices;¹⁰⁵ and (3) micro-shocks experienced when touching the metal surface of a vehicle in their driveway.¹⁰⁶ EKPC does not question the sincerity of the Barkers' belief that they are exposed to a danger, however, there is simply no credible engineering, scientific or medical basis to sustain their belief. The Barkers have offered no reliable evidence that the safety concerns they possess are legitimate. Instead, they specifically ask the Commission to require EKPC (and other utilities, by implication) to design, construct and operate their electric transmission systems so as to comply with a highly subjective public perception standard.¹⁰⁷ The Barkers' health and safety claim is not sustainable and their experts' opinions are neither reliable nor credible.

1. The Expert Opinions of James C. Pfeiffer, P.E. and Dr. David O. Carpenter, M.D. are Neither Reliable Nor Credible

In order to proffer an expert opinion, Kentucky's courts require an individual to first demonstrate that the opinion is both reliable and relevant to the question before the trier-of-fact. *See Miller v. Eldridge*, 146 S.W.3d 909, 913 (Ky. 2004). Kentucky's Supreme Court has long adhered to the *Daubert* standard, which requires judges to function "as a 'gatekeeper' charged

¹⁰³ *See* HVR 10:58:10 (July 1, 2014).

¹⁰⁴ *See* Complaint, p. 3.

¹⁰⁵ *See* Barker Testimony, p. 7; Pfeiffer Report, p. 6.

¹⁰⁶ *See* Complaint, p. 3.

¹⁰⁷ *See* HVR 13:43:40 (July 1, 2014); HVR 9:56:00 (July 8, 2014).

with keeping out unreliable, pseudoscientific evidence....” *Id.* Kentucky’s Supreme Court has further held that:

In evaluating the reliability of expert testimony, a trial court may consider a variety of factors:

The factors set forth in *Daubert* and adopted in *Mitchell* that a trial court may apply in determining the admissibility of an expert's proffered testimony include, but are not limited to: (1) whether a theory or technique can be and has been tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether, with respect to a particular technique, there is a high known or potential rate of error and whether there are standards controlling the technique's operation; and (4) whether the theory or technique enjoys general acceptance within the relevant scientific, technical, or other specialized community.

Miller, supra., p. 14.

Neither the testimony of Mr. Pfeiffer nor Dr. Carpenter would pass this prerequisite level of review in a court of law. Both witnesses have offered reports which are explicitly intended to advocate and persuade the Commission as to what the witnesses believe the standards for EMF associated with power lines should be, rather than to inform the Commission as to why there is currently no scientific, engineering, medical or public policy consensus that such standards are even necessary. Likewise, the fact that both Mr. Pfeiffer and Dr. Carpenter based their opinions as to the Barkers’ perceived health risks primarily upon the review of literature of third parties, and not their own personal work and research, means that their opinions should be subject to even closer scrutiny.¹⁰⁸ As the Kentucky Supreme Court said in *Burton v CSX Transp., Inc.*, 296 S.W.3d 1, 7 (Ky. 2008), “[a] high standard must be met for an expert's testimony based primarily or fully on literature review to be properly admitted in court under *Daubert*.”

¹⁰⁸ See HVR 14:44:54; 15:09:13 (July 1, 2014); HVR 9:21:34 (July 8, 2014).

Granted, the Commission is not strictly bound by the Kentucky Rules of Evidence under KRS 278.310, but that does not mean that the Commission's proceedings should disregard the principles of evidence altogether. In this case, there has been no adequate demonstration of the competency of either Mr. Pfeiffer or Dr. Carpenter to speak authoritatively on the subject of EMF, and the Commission is justified in finding that they are not professionally competent to testify upon the question of health concerns associated with electric transmission lines. Yet even if the Commission were to determine that these witnesses' testimony is competent, it is most certainly entitled to very little weight, for the specific reasons set forth below.

a. James C. Pfeiffer, P.E.

Mr. Pfeiffer was retained to investigate EKPC's transmission line "to determine if hazards are now present" on the Barkers' property.¹⁰⁹ The "hazard" which Mr. Pfeiffer sought to discover is the EMF and induced current associated with EKPC's transmission line.¹¹⁰ Mr. Pfeiffer is unqualified to make such an investigation, however. He testified that he has never personally designed, routed, constructed or maintained a high-voltage transmission line,¹¹¹ nor has he ever personally designed, led, conducted or participated in a study on EMF.¹¹² Indeed, the majority of Mr. Pfeiffer's report appears to be a compendium of copies of various (sometimes conflicting) documents and reports by third parties with whom he has no formal professional association whatsoever.¹¹³ Ironically, a very large number of the reports cited by Mr. Pfeiffer were actually authored by EKPC's own witness, Dr. Gabor Mezei, M.D., Ph.D.,¹¹⁴ who would be

¹⁰⁹ See Pfeiffer Report, p. 4.

¹¹⁰ See HVR 13:23:00 (July 1, 2014).

¹¹¹ See Barkers' Response to EKPC Data Request 16; HVR 13:23:46 (July 1, 2014).

¹¹² See Barkers' Response to EKPC Data Request 17; HVR 13:24:03; 13:40:00 (July 1, 2014).

¹¹³ As pointed out by Benjamin Cotts, Ph.D., many of the sources quoted by Mr. Pfeiffer appear to be included without appropriate citation. See Benjamin Cotts, Ph.D., Report ("Cotts Report"), pp. 38-39 (June 2, 2014).

¹¹⁴ See Pfeiffer Report, pp. 7, 106-139; HVR 13:34:30 (July 1, 2014).

much better suited to accurately characterize his own studies. Even at a very general level, Mr. Pfeiffer was generally unfamiliar with the weight-of-evidence approach to scientific study and could not explain the differences between epidemiological, *in vivo* and *in vitro* studies,¹¹⁵ as this was his first investigation of the possible effect of EMF on human health.¹¹⁶

Moreover, Mr. Pfeiffer's methodology for conducting his investigation and preparing his report is also highly suspect. Despite admitting that it has no relevance to EMF, Mr. Pfeiffer relied upon the National Fire Protection Association's *Guide for Fire and Explosion Investigation* to guide his work.¹¹⁷ He could not explain why he would selectively quote resources to include information supportive of his opinion, while excluding from his report information contained in the same sources which was inconsistent with his opinion.¹¹⁸ Likewise, he took no steps to mitigate the effect of taking his EMF measurements while standing underneath the Barkers' electric service line,¹¹⁹ which would tend to distort and overstate the results.¹²⁰ To the contrary, it would appear that his methodology was designed to yield the data most favorable to the Barkers, as evidenced by his decision to discard other data he collected.¹²¹ Elsewhere, Mr. Pfeiffer inexplicably decided to add a new standard to RUS Bulletin 1724E-203, *Guide to Upgrading RUS Transmission Lines*, regarding the calculation of right-of-way widths.¹²² Moreover, Mr. Pfeiffer's meter, even when properly calibrated, is designed to capture

¹¹⁵ See HVR 13:49:28 (July 1, 2014).

¹¹⁶ See HVR 14:44:13 (July 1, 2014).

¹¹⁷ See HVR 13:24:20 (July 1, 2014); Pfeiffer Report, p. 4.

¹¹⁸ See EKPC Hearing Exhibit 8; HVR 13:58:17 (July 1, 2014).

¹¹⁹ See HVR 14:25:15 (July 1, 2014).

¹²⁰ See Cotts Report, pp. 39-41.

¹²¹ See Pfeiffer Report, p. 72; Barkers' Response to EKPC Data Request 35.

¹²² See Dolloff Testimony, pp. 18-20.

EMF readings from 13 Hz to 75,000 Hz,¹²³ introducing the very real possibility that his measurements would include background frequencies above and beyond the 60 Hz at which high-voltage power lines are designed to operate.

Mr. Pfeiffer's report is also riddled with internal inconsistencies, errors and conclusions that lack any factual support. In some places he refers to the "known" threat associated with EMF, but in other places he states that EMF is a "potential" health risk.¹²⁴ Mr. Pfeiffer admitted that he miscalculated the minimum right-of-way for the upgraded transmission line,¹²⁵ and acknowledged that his prior conclusion that EKPC's 150-foot easement was insufficient was in error.¹²⁶ As Dr. Cotts demonstrated, Mr. Pfeiffer's computer-assisted distance measurements were inaccurate when checked against laser-based, field measurements.¹²⁷ Elsewhere, Mr. Pfeiffer improperly sought to shift responsibility for the proximity of the transmission line to the Barkers' residence by stating that EKPC "did not object" to the location of the Barkers' residence.¹²⁸ Obviously, as a matter of law, EKPC could not object to the construction of the Barkers' residence beyond the boundary of the transmission line easement.¹²⁹ The Barkers' decision to construct their residence immediately next to the transmission line, and with

¹²³ See Dolloff Testimony, p. 30.

¹²⁴ See Pfeiffer Report, pp. 11, 14; HVR 13:58:57 (July 1, 2014).

¹²⁵ See HVR 14:07:00 (July 1, 2014).

¹²⁶ See HVR 14:07:15; HVR 14:11:48 (July 1, 2014) ("I question those [ROW] calculations, but I don't have anything to say that it should have been bigger.").

¹²⁷ See Pfeiffer Report, p. 49; Cotts Report, pp. 33-37.

¹²⁸ See Pfeiffer Report, p. 16. The Barkers' testimony perpetuates the myth that EKPC is somehow to blame for the proximity of their residence, garage and carport to EKPC's transmission line easement by blaming EKPC for the fact that the easement "goes through the middle of the front yard, part of the attached carport and garage/candy shop." Barker Testimony, p. 2. In fact, the western edge of EKPC's easement (the side closest to the Barker's residence) has not changed since first acquired twenty years before the construction of the Barkers' home and Mr. Pfeiffer admitted on the witness stand that his statement was incorrect. See HVR 10:43:00; 13:29:20; 14:12:30 (July 1, 2014).

¹²⁹ The record is devoid of any evidence that the Barkers sought EKPC's acquiescence to the subsequent construction of the garage which does encroach upon EKPC's easement.

knowledge of EKPC's right to subsequently expand and upgrade the line, can in no way be attributed to any act or omission of EKPC. Likewise, Mr. Pfeiffer's claim that the electric field intensity would strengthen in the event that EKPC increased the voltage of the 69kV line to 138 kV is incorrect – an increase in voltage would decrease the electric field, all other variables being equal.¹³⁰

Finally, Mr. Pfeiffer's opinions are simply not credible. He acknowledges that there are no standards for EMF associated with electric transmission lines at the federal level, imposed by RUS or within Kentucky,¹³¹ yet he urges the Commission to nevertheless retroactively impose a standard based upon public perceptions about EMF.¹³² In so doing, Mr. Pfeiffer claims that it is unnecessary to first establish a causal link between EMF and actual adverse health effects – the simple perception that there might be a connection is significant enough, in his opinion, to require remedial action.¹³³ When asked why the federal government and 48 states have chosen not to implement a magnetic field standard, and why the federal government and 44 states have chosen not to implement an electric field standard, for high voltage transmission lines, Mr. Pfeiffer stated that it was most likely because of the influence of utilities on public policy and the need for more research.¹³⁴

Under the standards articulated in *Daubert* and adopted by Kentucky in *Miller*, there is no legal basis to accept Mr. Pfeiffer's testimony as reliable on the question of whether the Barkers' health concern is legitimate and justified. Mr. Pfeiffer is selectively relying upon the

¹³⁰ Cf. Pfeiffer Report, p. 78; Dolloff Testimony, p. 15; HVR 14:30:10 (July 1, 2014); HVR 15:48:34 (July 8, 2014).

¹³¹ See HVR 13:29:45 (July 1, 2014); Barkers' Response to EKPC Data Request Nos. 44-49.

¹³² See HVR 13:43:40 (July 1, 2014). Dr. Carpenter took the same position. See HVR 9:56:00 (July 8, 2014).

¹³³ See HVR 13:41:40; 13:42:35; 13:43:59 (July 1, 2014).

¹³⁴ See HVR 13:46:37 (July 1, 2014).

work of others to support a conclusion which he cannot personally support or even explain. Accordingly, Mr. Pfeiffer's testimony on this point should be given no consideration.

b. Dr. David O. Carpenter, M.D.

Dr. Carpenter: (1) has never been licensed to practice medicine in any jurisdiction;¹³⁵ (2) holds no medical Board certifications;¹³⁶ (3) is unqualified to diagnose any medical illness or condition in a human being;¹³⁷ and (4) cannot prescribe any treatment or write a prescription for any individual.¹³⁸ He has never designed, constructed or operated a high-voltage transmission line.¹³⁹ He has not personally engaged in the study of EMF,¹⁴⁰ nor has he ever led or conducted such a study.¹⁴¹ He was unfamiliar with, and had never reviewed, the United States Department of Energy's RAPID brochure until becoming involved in this proceeding.¹⁴² His testimony on this same subject has been rejected or given little weight by adjudicators in a number of legal and administrative venues, including the: (1) Pennsylvania Public Utilities Commission;¹⁴³ (2) Minnesota Public Utilities Commission;¹⁴⁴ (3) Washington Supreme Court;¹⁴⁵ (4) Quebec Régie

¹³⁵ See HVR 9:20:37 (July 8, 2014).

¹³⁶ See HVR 9:20:49 (July 8, 2014).

¹³⁷ See HVR 9:20:56 (July 8, 2014).

¹³⁸ See HVR 9:21:06 (July 8, 2014).

¹³⁹ See HVR 9:38:34 (July 8, 2014).

¹⁴⁰ See Carpenter Report, p. 2; HVR 9:21:20 (July 8, 2014).

¹⁴¹ See HVR 9:22:00 (July 8, 2014).

¹⁴² See Barkers' Response to EKPC Data Request 51 (filed May 12, 2014). Dr. Carpenter's lack of familiarity with the United States Department of Energy's principal publication on EMF, the RAPID brochure, standing alone, raises significant questions about the scope of his familiarity with all the literature on this subject.

¹⁴³ See *Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval for the Siting and Construction of the Pennsylvania Portion of the Proposed Susquehanna-Roseland 500kV Transmission Line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania*, Case No. A-2009-2082652, (Pa. P.U.C., Feb. 12, 2010), EKPC Hearing Exhibit 12 ("We agree with the ALJ regarding the testimony of SCECA witness Dr. Carpenter. When the record is viewed in its entirety, it is clear that Dr. Carpenter's testimony is his largely unsubstantiated (albeit heartfelt) opinion that EMF poses a health threat at any level.").

¹⁴⁴ See *In the Matter of the Route Permit Application by Great River Energy and Excel Energy for a 345kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Case No. ET-2/TL-08-1474

de L'Énergie;¹⁴⁶ and (5) United States District Court for the Southern District of Indiana.¹⁴⁷ In Kentucky, his testimony was voluntarily withdrawn by the plaintiffs in a federal case when the defendants argued that Dr. Carpenter's testimony was unreliable and that he was unqualified to offer any specific causation analysis.¹⁴⁸ When asked by the Barkers' own counsel to identify specific proceedings where his testimony about EMFs had been accepted as persuasive, Dr. Carpenter could not list a single example.¹⁴⁹

In addition, Dr. Carpenter's opinion is essentially a distillation of his larger work – the *BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)* (hereinafter, “*BioInitiative Report*”) – which has itself

(Sept. 14, 2010), EKPC Hearing Exhibit 13 (“The Applicants pointed out that ‘Several of the studies relate to research on ELF-MF exposures many orders of magnitude higher than the highest peak field calculated for the Project.’ The exceptionally high levels of exposure to EMF-ELF support the conclusion that the studies relied upon by Dr. Carpenter are not probative of the Project’s [high-voltage transmission line] on the health and safety of persons living in the vicinity of the route.”).

¹⁴⁵ See *Lahey v. Puget Sound Energy, Inc.*, Case No. 87679-7 (Wash., Mar. 7, 2013), EKPC Hearing Exhibit 14, pp. 11-12:

Carpenter failed to follow proper methodology, rendering his conclusions unreliable and therefore inadmissible. Carpenter did not consider all relevant data as basic epidemiology required. Carpenter discounted entire epidemiological and toxicological studies, especially the newer epidemiological studies. Carpenter failed to consider the later, better studies about the links between EMF and health harms, seriously tainting his conclusions because epidemiology is an iterative science relying on later studies to refine earlier studies in order to reach better and more accurate conclusions. Carpenter refused to account for the data from the toxicological studies, which epidemiological methodology requires unless the evidence of the link between exposure and disease is unequivocal and strong, which is not the case here. Carpenter also selectively sampled data within one of the studies he used, taking data indicating an EMF-illness link and ignoring the larger pool of data within the study that showed no such link. Carpenter's treatment of this data created an improper false impression about what the study actually showed. The trial court possessed the discretion to find that Carpenter's failure to follow proper methodology rendered his epidemiological conclusions unreliable and unhelpful to the jury as a matter of law.

¹⁴⁶ See *Hydro-Québec*, Décision Finale, Docket No. 2012-127, R-3770-2011 (Québec Régie De L'Énergie, Oct. 5, 2012), EKPC Hearing Exhibit 15, p. 4 (“Obviously, the witness Carpenter, expert or not, does not meet the criteria of objectivity which the Régie is entitled to expect.”) (translated by Google).

¹⁴⁷ See *Allgood v. General Motors Corporation*, Order, Case No. 102-CV-1077-DFHTAB, 2006 WL 2669337, *27 (S.D. In., Sept. 18, 2006) (“While Dr. Carpenter has extensive experience relating to the study of PCBs and their effects, Dr. Carpenter's opinions are not sufficiently reliable and therefore are inadmissible in this case.”).

¹⁴⁸ See *Adams v. Cooper Industries, Inc.*, Order, Case No. 5:03-CV-476-JBC (E.D. Ky., Apr. 29, 2007) (dismissing as moot the defendants' Motion to Exclude the Testimony and Opinions of David Carpenter, M.D.).

¹⁴⁹ See HVR 10:46:20 (July 8, 2014).

been roundly criticized both domestically and internationally. The *BioInitiative Report* is, by its own terms, an advocacy document intended to “document the reasons why current public exposure standards for non-ionizing electromagnetic radiation are no longer good enough to protect public health.”¹⁵⁰ Dr. Carpenter’s primary co-author and co-editor of the *BioInitiative Report* is engaged in the business of managing exposure to EMF,¹⁵¹ raising the specter of bias.¹⁵² Regardless of editorial views, the *BioInitiative Report* has been criticized and dismissed by the Health Council of the Netherlands;¹⁵³ the Australian Center for Radiofrequency Bioeffects Research;¹⁵⁴ the IEEE Committee on Man and Radiation,¹⁵⁵ and others.¹⁵⁶ Dr. Carpenter’s

¹⁵⁰ *Australian Centre for Radiofrequency Bioeffects Research Position Statement on BioInitiative Report*, Dec. 18, 2008, EKPC Hearing Exhibit 18, p. 2 (quoting the *BioInitiative Report*, Sec. 2, p. 1).

¹⁵¹ See EKPC Hearing Exhibit 16.

¹⁵² See HVR 10:12:00 (July 8, 2014).

¹⁵³ See *The Health Council of the Netherland’s Report to the Minister of Housing, Spatial Planning and the Environment*, Sept. 2, 2008, EKPC Hearing Exhibit 17, pp. 2, 4:

The multidisciplinary weight-of-evidence method leads to a scientifically sound judgment that is as objective as possible. The BioInitiative report did not follow this procedure.

...

The first section, written by one of the main initiators of the BioInitiative report, contains the summary and conclusions, which in many cases go further than the conclusions reached by the authors of the review sections.

...

In view of the way the BioInitiative report was compiled, the selective use of scientific data and the other shortcomings mentioned above, the Committee concludes that the BioInitiative report is not an objective and balanced reflection of the current state of scientific knowledge. Therefore, the report does not prove any grounds for revising the current views as to the risks of exposure to electromagnetic fields.

¹⁵⁴ See EKPC Hearing Exhibit 18, pp. 2-3:

The BioInitiative Report has not undergone such independent peer review and so the conclusions that it reaches would normally be viewed more as views of the authors, rather than strong contributions to science.

...

Overall, we think that the BioInitiative Report does not progress science, and would agree with the Health Council of the Netherlands that the BioInitiative Report is “not an objective and balanced reflection of the current state of scientific knowledge.” As it stands it merely provides a set of views that are not consistent with the consensus of science, and it does not provide an analysis that is rigorous enough to raise doubts about the scientific consensus.

opinions are well-beyond the mainstream of current scientific knowledge and belief and extend to opposing the deployment of Wi-Fi in public schools and smart meters in homes.¹⁵⁷ He has accused the Food and Drug Administration (“FDA”), Federal Communications Commission (“FCC”), World Health Organization (“WHO”) and the International Committee on Non-Ionizing Radiation Protection (“ICNIRP”) of all being complicit in a global conspiracy that “risked grave damage to generations of humans and to the living species of our global environment....”¹⁵⁸

The problems noted by jurists, regulators, administrators and health policy experts regarding Dr. Carpenter’s credibility are also present in this proceeding. For example, Dr.

¹⁵⁵ See *IEEE Committee on Man and Radiation Technical Information Statement: Expert Reviews on Potential Health Effects of Radiofrequency Electromagnetic Fields and Comments on the BioInitiative Report*, May 11, 2009, EKPC Hearing Exhibit 19, pp. 351:

COMAR views the BIR as an advocacy document, rather than a balanced review of the scientific literature.

...

As a scientific review, the BIR has a number of weaknesses including internal inconsistency. The statement that “A weight-of-evidence approach has been used to describe the body of evidence between health end-points and exposure to electromagnetic fields (ELF and RF) and the text in another section referring to the weight-of-evidence approach as “unscientific” are not consistent. A major weakness of the BIR is a selective, rather than a comprehensive, review of the literature in various topical areas. Two examples discussed here are a) animal tumor studies and b) genotoxicity (DNA damage). (citations omitted).

¹⁵⁶ See *Picking Cherries in Science: The Bio-Initiative Report*, Kenneth R. Foster and Lorne Trottier, Feb. 15, 2013, EKPC Hearing Exhibit 20 (“The ‘cautionary’ recommendations of the latest 2012 edition of the BIR, which are more than 100 times lower than the previous ones, are made without clear scientific justification and at levels that would all but eliminate broadcasting and wireless technology.”).

¹⁵⁷ See *AHM v. Portland Public Schools*, Civil Action No. 3:11-CV-00739-MO, U.S. Dist. Ct. Oregon, Portland Division, Amended Declaration of Dr. David O. Carpenter, M.D. (Dec. 20, 2011), EKPC Hearing Exhibit 10, p. 23 (“For these reasons, WI-FI must be banned from school deployment.”); *In the Matter of FortisBC, Inc.*, Order No. C-7-13, British Columbia Utilities Commission (July 23, 2013), EKPC Hearing Exhibit 11, p. 22:

The Panel has significant concerns about Dr. Carpenter’s testimony. Of particular concern is that Dr. Carpenter, in the words of FortisBC, “summarizes the references he cites in a manner consistent with his own beliefs, rather than accurately reporting their findings.” The Panel is also concerned with Dr. Carpenter’s reference to studies that suit his views and his ability to improperly defend them as exhibited by the Belo Horizonte municipality study example. In his attempt to summarize the references, Dr. Carpenter adopted a less than objective and fully informed approach. For this reason, the Panel gives little weight to his evidence.

¹⁵⁸ See Letter from Cindy Sage, M.A. and David O. Carpenter, M.D., Feb. 7, 2013, EKPC Hearing Exhibit 21.

Carpenter continues to be very selective in his citation of EMF studies.¹⁵⁹ All of the nineteen case studies cited by Dr. Carpenter purportedly support his conclusion that exposure to magnetic fields associated with high-voltage powers lines create a health risk.¹⁶⁰ However, his description of these studies, their findings and their ultimate contributions to science are at odds with the testimony of Dr. Kenneth Foster and Dr. Gabor Mezei who offer significant caveats regarding the reliability and significance of many of Dr. Carpenter's authorities.¹⁶¹ Dr. Carpenter likewise fails to acknowledge the overwhelming number of scientific and health agency risk evaluations and reports, along with their conclusions, which squarely contradict his opinions.¹⁶² While Dr. Carpenter correctly notes that extremely low-frequency electromagnetic fields are a "Group 2B, possible human carcinogen,"¹⁶³ he fails to offer the proper context for that point by pointing out that coffee and styrene (the primary ingredient in Styrofoam) are similarly categorized.¹⁶⁴ When asked why only two jurisdictions in the United States have enacted a magnetic field standard for power lines, Dr. Carpenter demurred.¹⁶⁵ His categorical exclusion of animal studies,¹⁶⁶ which

¹⁵⁹ See Mezei Report, pp. 28-30; HVR 11:30:05 (July 8, 2014).

¹⁶⁰ See Carpenter Report, pp. 3-5. Dr. Carpenter described these reports as being "most relevant" to the case. See HVR 9:47:05 (July 8, 2014).

¹⁶¹ See Foster Report, pp. 12-16, 26-51; Mezei Report, pp. 20-25, 28-30. Both of these reports call into question the reasonableness of Dr. Carpenter's reliance upon several selected studies (*i.e.* Ahlbom, et al. (2000), Greenland, et al. (2000), Draper, et al. (2005), Folliart, et al. (2006), Kheifets, et al. (2010), Huss, et al. (2006) and Li, et al. (2011)), noting that the limitations of each (the potential for bias, confounding, sample size, etc.) and the lack of supportive laboratory animal studies renders these studies insufficient as the basis for any cause and effect conclusions with respect to potential health effects.

¹⁶² See Notes 189-196 and accompanying text, *infra*.

¹⁶³ Carpenter Report, p. 2. Dr. Mezei pointed out at the hearing that this classification is based exclusively upon studies relating to childhood leukemia. The evidence to classify 60 Hz EMF as a possible carcinogen for other child and adult diseases has been deemed by the World Health Organization and others as "inadequate." See HVR 11:42:00 (July 8, 2014).

¹⁶⁴ See HVR 11:40:30 (July 8, 2014).

¹⁶⁵ See HVR 9:44:15 (July 8, 2014).

¹⁶⁶ See Carpenter Report, p. 6 ("Another reason that some are skeptical is that most animal studies failed to demonstrate cancer as a result of magnetic field exposure. However, there is reason to question whether rodents are adequate models of human exposure to EMFs, since induced currents in small animals are very much smaller than those in two-legged animals.") (citation omitted).

have failed to replicate the alleged association of power line EMF exposure and health effects, is strikingly inconsistent with the weight-of-evidence approach to public health issues.¹⁶⁷

Despite all this, Dr. Carpenter's report unequivocally states that "[t]he situation at the Barker home is such that there is clearly an elevated risk of a variety of diseases among those who live there."¹⁶⁸ He claims that the average 10 mG (peaking at 24 mG) magnetic field in the Barkers' home is "an order of magnitude higher than the levels associated with elevation in the risk of cancer (2 mG),"¹⁶⁹ before concluding, "[i]t is my opinion to a reasonable degree of medical certainty that the operation of the 345kV power line this close to the Barker's [*sic*] home constitutes a real and significant health risk to the residents."¹⁷⁰ While these opinions are no doubt sincerely held by Dr. Carpenter, they are unsupported and, in some cases, contradicted by other evidence offered by the Barkers. For instance, Dr. Carpenter's report never discloses the specific basis for his opinion that exposure to 2 mG equates to an elevated risk of developing cancer.¹⁷¹ He never identifies a specific cause-and-effect relationship to support his opinions and even concedes that no biological mechanisms "have been definitely proven to be the basis of the clear association between exposure to magnetic fields and a variety of human diseases."¹⁷² Elsewhere he writes, "[a] single definitive mechanism, whereby these low energy EMFs can induce sufficient cellular changes resulting in cancer, has not been identified."¹⁷³ He never fully

¹⁶⁷ See Mezei Report, pp. 11 (citing the International Agency for Research on Cancer, which found, "[a]ll known human carcinogens that have been studied adequately for carcinogenicity in experimental animals have produced positive results in one or more animal species."), 30-31.

¹⁶⁸ Carpenter Report, p. 6.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ By contrast, Dr. Carpenter opined at the hearing that 4 mG was the appropriate standard to demark the "value demonstrated in meta-analyses that have been done as sort of the boundary of increased risks for cancer...." HVR 9:41:08 (July 8, 2014).

¹⁷² Carpenter Report, p. 5; HVR 9:52:50 (July 8, 2014).

¹⁷³ Carpenter Report, p. 5; HVR 9:48:10 (July 8, 2014).

explained the criteria by which he chose to rely upon some studies while excluding others.¹⁷⁴ Moreover, Dr. Carpenter's opinions are contradicted by Mr. Pfeiffer's own report, which states: "[t]he health and safety issues of EMF have existed for many years and after thousands of tests and research projects, there is no consensus as to the existence or severalty [*sic*] of these effects."¹⁷⁵

Dr. Carpenter's expert opinion exhibits the precise deficiencies identified in *Miller v. Eldridge*, 146 S.W.3d 909 (Ky. 2004), that make it unreliable as a matter of law. It is not a theory upon which he has himself engaged in testing. His opinion has been roundly criticized as a work of policy advocacy more than scientific study. His methods have been criticized as unobjective and his views do not enjoy general acceptance within the specialized communities. Accordingly, Dr. Carpenter's testimony should be excluded as unreliable or, at least, given no weight.

2. The Project's Measured and Modeled Electromagnetic Fields are Not Unsafe, as Alleged

The fact remains that only two states have implemented a magnetic field standard for electric transmission lines and only six states have implemented an electric field standard. As both Dr. Foster and Dr. Carpenter testified, these standards are based upon considerations other than safety and generally reflect the *status quo* of the transmission system in the various jurisdictions.¹⁷⁶ A comparison of these standards was produced as an attachment to the testimony of Dr. Dolloff and conceded to be accurate by the Barkers' experts.¹⁷⁷ Despite the study of EMF for nearly four decades, no federal or state legislative or administrative body has

¹⁷⁴ See HVR 9:46:51 (July 8, 2014).

¹⁷⁵ Pfeiffer Report, p. 65. Mr. Pfeiffer does not necessarily agree with statements such as this, however, even though they are in the report he prepared.

¹⁷⁶ See HVR 16:21:42; 16:27:10 (July 1, 2014); HVR 9:44:30 (July 8, 2014).

¹⁷⁷ See EKPC Hearing Exhibit 7; HVR 13:53:10 (July 1, 2014); HVR 9:44:00 (July 8, 2014).

found a reason for such standards to be adopted in Kentucky – not Congress, not FERC, not the EPA, not the FDA, not the FCC, not RUS, not OSHA, not the General Assembly, not EEC and not the Commission. The evidence to support adoption of such a standard simply does not exist and many researchers have moved on to other issues which are still open to reasonable scientific debate.¹⁷⁸

Notwithstanding the fact that no EMF standard exists for any utility operating in Kentucky, the measured observations of Dr. Dolloff and Dr. Cotts demonstrate that EKPC's transmission line would comply with any edge of right-of-way magnetic field standard currently in effect anywhere in the United States.¹⁷⁹ Despite the many analytical flaws in Mr. Pfeiffer's report, detailed above, the actual measurements and estimates of the magnetic field associated with EKPC's transmission line that are set forth in his report demonstrate that there is no objective basis to determine that the transmission line presents a health or safety problem for the Barkers. Thus, even when the magnetic field evidence proffered by the Barkers is accepted without reservation or qualification,¹⁸⁰ they still only produce an estimate that the magnetic fields will vary "from 10 mG and to a high of 191 mG over time,"¹⁸¹ leading Mr. Pfeiffer to concede that the magnetic field measurements "are below the existing standards..."¹⁸²

Comparing the Barkers' evidence with regard to electric fields yields a similar result. Mr. Pfeiffer concludes that the electric field will "vary from 0.997 kV/m to a high of 1.438 kV/m

¹⁷⁸ See HVR 11:18:10 (July 8, 2014).

¹⁷⁹ See EKPC Hearing Exhibit 7.

¹⁸⁰ The Barkers' evidence should not be accepted without reservation or qualification. For instance, Mr. Pfeiffer's magnetic field calculations are based upon data which was skewed by the interference of the Barker's electric service line. See Cotts Report, p. 40.

¹⁸¹ Pfeiffer Report, p. 14. Mr. Pfeiffer's maximum estimate is substantially higher than EKPC's observed measurement of 23.6 mG and a modeled estimate of 30.391 mG at the edge of the right-of-way, which further calls into question the accuracy of his calculations. See EKPC Hearing Exhibit 7.

¹⁸² Pfeiffer Report, p. 91. Dr. Carpenter stated at the hearing that New York's 200 mG standard was 50 times greater than what he would consider a safe standard. See HVR 10:33:20 (July 8, 2014).

over time.”¹⁸³ Mr. Pfeiffer’s calculations are for a spot located in the Barkers’ driveway, which is within EKPC’s right-of-way,¹⁸⁴ and are therefore well within every on-right-of-way standard for electric fields that has been adopted anywhere within the United States.¹⁸⁵ Mr. Pfeiffer’s ultimate conclusion severely undercuts the credibility of the Barkers’ safety concern, where he writes, “[w]hen we compare the EKPC electric field measurements with the existing standards we can see that the electric field is right at the edge of the acceptable limits....”¹⁸⁶ However, even this statement fails to accurately compare EKPC’s electric field measurements to applicable standards. The EKPC 0.997 kV/m measurement was on the right-of-way, whereas the 1 kV/m standard is for the edge of right-of-way.¹⁸⁷ When the actual observed edge of right-of-way measurement is taken into account, EKPC is even further below the lowest standard in effect anywhere in the country.¹⁸⁸ Mr. Pfeiffer’s conclusion underscores the fact that there is no jurisdiction anywhere in the United States that would conclude that the electric fields associated with EKPC’s transmission line somehow create a legitimate safety concern.

Mr. Pfeiffer’s conclusion, which is at odds with his own testimony,¹⁸⁹ is in accord with the overwhelming body of literature from public health agencies which agree that EMF from high-voltage power lines has not been proven to be a health risk to humans. For instance, the World Health Organization has stated, “[d]espite the feeling of some people that more research

¹⁸³ Pfeiffer Report, p. 14. Mr. Pfeiffer did not personally take any electric field measurements to validate his estimates.

¹⁸⁴ See HVR 13:51:25 (July 1, 2014); Pfeiffer Report, p. 5.

¹⁸⁵ See EKPC Hearing Exhibit 7.

¹⁸⁶ Pfeiffer Report, p. 91.

¹⁸⁷ See EKPC Hearing Exhibit 7.

¹⁸⁸ See *id.* At the edge of the EKPC right-of-way, Dr. Dolloff personally measured a 0.621 kV/m electric field and Dr. Cotts personally recorded a 0.9 kV/m electric field. EKPC’s highest modeled edge of right-of-way electric field was 1.167, which would slightly exceed the most restrictive edge of right-of-way standard in the country, which was adopted by Montana.

¹⁸⁹ See HVR 14:15:08 (July 1, 2014).

needs to be done, scientific knowledge in this area is now more extensive than for most chemicals.... Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields.”¹⁹⁰ The National Institute of Environmental Health Sciences (1998), International Agency for Research on Cancer (2002), International Committee on Non-Ionizing Radiation Protection (“ICNIRP”) (2010) and Scientific Committee on Emerging and Newly Identified Health Risks (2013) all dispute the claim that there is a known health risk caused by exposure to high-voltage transmission line EMF.¹⁹¹

As Dr. Foster testified, science-based standards concerning power line EMF exposures are orders of magnitude greater than the levels recorded and calculated at the Barkers’ residence.¹⁹² For instance, when ICNIRP revised its 1998 Guidelines for occupational exposures to 60 Hz EMF in 2010, it raised the magnetic field limit for electric transmission lines from 83 μ T (830 mG) to 200 μ T (2,000 mG).¹⁹³ Higher exposure limits in occupational exposure guidelines indicate that even these raised exposure limits are considered protective of any possible adverse effects of electric line EMF and do not heighten concerns as Mr. Pfeiffer and Dr. Carpenter would suggest. Yet even ICNIRP’s guidelines are very conservative when compared to other consensus guidelines developed by scientific organizations. As an example, the International Committee on Electromagnetic Safety (“ICES”) set a general indefinite exposure limit of 9,040 mG in 2002 and the American Conference of Governmental Industrial Hygienists (“ACGIH”) set an occupational exposure limit of 10,000 mG in 2009.¹⁹⁴ Thus, the

¹⁹⁰ Mezei Report, p. 7.

¹⁹¹ See Mezei Report, pp. 13-16.

¹⁹² See HVR, 16:27:42 (July 1, 2014).

¹⁹³ See Pfeiffer Report, p. 64; Foster Report, p. 7.

¹⁹⁴ See Mezei Report, p. 18; Foster Report, p. 7.

Commission must consider which it believes to be more reasonable, the occupational magnetic field exposure guidelines of ICNIRP (2,000 mG) and general public magnetic field exposure guidelines of ICES (9,040 mG) or the magnetic exposure recommendation of Dr. Carpenter (2 mG).

The science-based exposure guidelines for electric fields are also substantially higher than anything conceivably possible at the Barkers' residence: ranging from 4.17 kV/m (ICNIRP, 2010) to 5 kV/m (ICES, 2002) for general public exposure to 25 kV/m (ACGIH, 2009) for occupational exposures.¹⁹⁵ Though neither Dr. Carpenter nor Mr. Pfeiffer opine as to what would be "safe" in their minds, the highest possible electric field calculated for the Barkers' property is multiple times lower,¹⁹⁶ which would require the transmission line to operate at the highest possible voltages, under emergency conditions, indefinitely. There is no scientific evidence to support the Barkers' health and safety concerns.

The foregoing findings of several reputable health agencies, the regulatory standards adopted by a handful of states and the international science-based exposure guidelines are all fully consistent with the decision of the Pennsylvania Public Utilities Commission in a case with remarkably similar facts. In that case, the Pennsylvania Commission considered the siting of a 500kV transmission line that ran through a subdivision that had been established after an original, smaller transmission line had been constructed many years before.¹⁹⁷ The Pennsylvania Commission specifically rejected the residents' contention, supported by the expert testimony of Dr. Carpenter, that their worries about EMF were a rational basis to require the utility to relocate

¹⁹⁵ See Mezei Report, p. 18.

¹⁹⁶ See *i.e.* Cotts Report, p. 31; EKPC Hearing Exhibit 7.

¹⁹⁷ See EKPC Hearing Exhibit 12, pp. 105-114.

the line.¹⁹⁸ The Pennsylvania Commission was satisfied that the concerns about EMF in a residential neighborhood were unfounded.

The prevailing view of scientists and public health practitioners around the world is that there is no demonstrated health risk associated with living in proximity to electric power lines. This is the opinion held by both Dr. Gabor Mezei, M.D., Ph.D., and Dr. Kenneth Foster, Ph.D., who offered testimony on EKPC's behalf. Both men are imminently qualified to offer expert opinions on this subject. Dr. Mezei has both a Ph.D. in epidemiology (a core public health discipline) and a medical degree.¹⁹⁹ He has been licensed to practice medicine and has actually treated patients.²⁰⁰ He has personally designed, conducted and led many studies on the potential effect of power line EMF on human health, both during and after his tenure as the head of the Electric Power Research Institute's research program on this subject.²⁰¹ Dr. Mezei opined, "it is my opinion that a causal relationship between environmental exposure to ELF EMF and adverse chronic human health effects is not established and the magnetic field exposure that is anticipated in the Barker home as a result of the nearby transmission lines does not represent any proven health risk."²⁰² This opinion is based upon his thorough understanding of, and adherence to, the weight-of-evidence approach to scientific study.²⁰³

Dr. Mezei's testimony is in accord with the testimony of Dr. Kenneth Foster who stated, "I conclude from the above analysis that the electric and magnetic fields produced by the EKPC line at the residence of the Barkers are well below major science-based exposure limits for the

¹⁹⁸ *See id.*

¹⁹⁹ *See Mezei Report*, p. 2.

²⁰⁰ *See id.*

²⁰¹ *See HVR 11:33:50* (July 8, 2014); *Mezei Report*, p. 2.

²⁰² *Mezei Report*, p. 32.

²⁰³ *See Mezei Report*, pp. 10-14, 32. At the hearing, Dr. Mezei confirmed that the weight-of-evidence approach was consistently used to research the potential carcinogenicity of all agents. *See HVR 11:32:45* (July 8, 2014).

general population. Moreover, health agencies, in their expert reviews of the scientific literature, have not concluded that any hazards exist from such exposure.”²⁰⁴ Dr. Foster’s own qualifications are similarly above-reproach. He is a professional engineer and has a Ph.D. in physics and has spent the previous forty-three years directly and personally engaged in the study of the interaction of EMF with biological systems.²⁰⁵ Dr. Foster has published more than 100 scientific publications in peer-reviewed journals on EMF issues.²⁰⁶ When asked by the Barkers’ counsel as to whether he would live in the Barkers’ home, Dr. Foster indicated that he would have no health and safety concerns about doing so,²⁰⁷ nor would he have any concerns about visiting the Barkers’ candy shop.²⁰⁸

3. There is No Evidence to Demonstrate a Legitimate Likelihood of the Transmission Line’s Interference with Pacemakers or Other Medical Implant Devices

While Dr. Carpenter offered “no opinion” on this subject,²⁰⁹ Mr. Pfeiffer echoes the Barkers’ concerns that the proximity of the transmission line to their residence and candy shop/garage may somehow interfere with the proper functioning of pacemakers and other medical implant devices. However, these concerns are again unsupported and generally contradicted by the sources quoted in Mr. Pfeiffer’s own report. The only standards cited by Mr. Pfeiffer are those developed by the American Council of Governmental Industrial Hygienists (“ACGIH”) which state that “workers with cardiac pacemakers should not be exposed to 60-Hz magnetic field greater than 1 gauss (1,000 mG) or a 60-Hz electric field greater than 1 kilovolt per meter (1,000 V/m).” However, the ACGIH standard is an occupational standard that applies

²⁰⁴ Foster Report, p. 12.

²⁰⁵ See Foster Testimony, pp. 1-2; HVR 16:05:07 (July 1, 2014).

²⁰⁶ See Foster Testimony, p. 2.

²⁰⁷ See HVR 16:07:45 (July 1, 2014).

²⁰⁸ See HVR 16:24:15 (July 1, 2014).

²⁰⁹ See HVR 10:29:24 (July 8, 2014).

to workers, not patrons of a candy store whose exposure to EMF from the transmission line is temporary.²¹⁰ Moreover, the magnetic standard adopted by the ACGIH for workers is over five times greater than the maximum possible magnetic field calculated by Mr. Pfeiffer and over forty times greater than the maximum measured magnetic field in the Barkers' residence. Likewise, the measured electric field is also within the ACGIH's occupational standard and, when the shielding effect of the garage structure itself is taken into account, the strength of the already acceptable electric field is further reduced.²¹¹ Thus, even if EKPC's transmission line was perpetually operated at maximum levels, which, of course, is prohibited by reliability guidelines,²¹² the lines would not generate a strong enough electric or magnetic field to even raise the possibility of interfering with a pacemaker or implanted medical device. There is simply no objective basis to claim that the transmission line presents a legitimate health risk based upon the very authorities relied upon by Mr. Pfeiffer.

The conclusion that there is no objective basis to support a health concern on this point is confirmed in Mr. Pfeiffer's report where he notes that the United Kingdom's Department of Health, Medicines and Healthcare Products Regulatory Agency reports "there has been no recorded case in Britain of a patient coming to any harm as a result of fields produced by the power system."²¹³ Likewise, of the 58 reported cases of medical device malfunctions reported to the FDA, none have been attributed to power lines.²¹⁴ Dr. Mezei and Dr. Foster both note that

²¹⁰ See HVR 14:15:20 (July 1, 2014).

²¹¹ See Cotts Report, p. 4 ("In addition, electric fields are effectively blocked or attenuated by any conducting object, such as trees, fences, walls, or buildings.").

²¹² See EKPC Response to Barkers' Data Request No. 36 (explaining "next contingency" reliability operating requirements).

²¹³ Pfeiffer Report, pp. 61-62. Mr. Pfeiffer questioned these findings at the hearing, even though they were included in his own report. See HVR 14:15:08 (July 1, 2014).

²¹⁴ See Foster Report, p. 11.

modern medical implants are robust, durable and less-susceptible to interference.²¹⁵ Studies seeking to demonstrate the vulnerability of pacemakers to power line EMF have shown that the electric and magnetic fields on the Barkers' property are not even remotely close to presenting a danger.²¹⁶ This, and other data included in his report, led Dr. Foster to conclude, "it is highly unlikely that a person who has an implanted device will suffer adverse effects from exposure to the electric and magnetic fields beneath the [EKPC] line."²¹⁷ Dr. Cotts has personally worked with the manufacturer of various pacemakers to evaluate the potential for EMF interference with such device at occupational levels.²¹⁸ He concluded that he had no concerns about the potential for such interference.²¹⁹ The Barkers have offered no substantiated evidence to the contrary and this element of their alleged health and safety concern must similarly be dismissed.

4. Micro-shocks are Not a Safety Hazard

Finally, Dr. Carpenter's report alleges that there is an "elevated risk of development of amyotrophic lateral sclerosis as a consequence of the electrical shocks."²²⁰ However, the only study he cites in support of this conclusion examined those engaged in "electrical occupations," and was not based upon proximity to a transmission line.²²¹ Dr. Mezei noted that such studies are often prone to bias due to the method of selecting participants and the inherent limitations of

²¹⁵ See Mezei Report, p. 26; Foster Report, p. 11.

²¹⁶ See Mezei Report, p. 26 (noting two studies where: (1) no interference occurred in bipolar devices and interference in unipolar devices occurred only at electric field levels between 6.7 – 7.5 kV/m; and (2) no interference was observed with a magnetic field level as high as 6,500 mG and an electrical field level of 12.2kV/m).

²¹⁷ Foster Report, p. 12.

²¹⁸ See HVR 12:06:45 (July 8, 2014).

²¹⁹ See HVR 12:07:32 (July 8, 2014).

²²⁰ Carpenter Report, p. 6.

²²¹ See *id.*, p. 5.

relying upon participants' memories regarding past exposures.²²² The most recent studies refute Dr. Carpenter's claims.²²³

For his part, Mr. Pfeiffer's report states, "[g]enerally speaking, below 5 kV/m [micro-shocks] are not a problem. Above 5 kV/m [micro-shocks] may start being painful, depending on the individual situation."²²⁴ The highest electric field measured at the Barkers' residence was .998 kV/m),²²⁵ which is over five times below the standard cited by Mr. Pfeiffer. Mr. Pfeiffer made the outrageous suggestion at the hearing that an infant could somehow be electrocuted simply by touching the metal surface of a vehicle parked in the Barkers' driveway.²²⁶ This claim is totally unsupported by his report and rejected as impossible by Dr. Cotts.²²⁷ Appeals to emotion are a poor substitute for objective analysis.

Based upon calculations of the maximum possible induced current that could build up on a vehicle the size of a semi-trailer truck, Dr. Cotts determined that the greatest induced current that could be achieved is approximately 0.8 milliamps, which is much, much lower than the National Electric Safety Code's standard of 5.0 milliamps.²²⁸ Again, this is also well below the ACGIH's occupational guideline for the normal person experiencing any pain. There is simply no objective evidence that has been brought forth by the Barkers to demonstrate a legitimate concern about the health effects of any micro-shocks which they might experience and this final element of their health and safety concerns must also be dismissed for lack of scientific support.

²²² See Mezei Report, p. 24.

²²³ See *id.*, pp. 24-25.

²²⁴ Pfeiffer Report, p. 62.

²²⁵ See Dolloff Testimony, Exhibit PAD-4 (EKPC Hearing Exhibit 7).

²²⁶ See HVR 14:49:26 (July 1, 2014).

²²⁷ See HVR 12:03:25 (July 8, 2014).

²²⁸ See HVR 12:02:25 (July 8, 2014).

D. The Relief Requested by the Barkers is Unreasonable

As stated at the hearing, the Barkers' preferred outcome is for the Commission to enter an Order directing EKPC to move the transmission line 250 feet further to the east.²²⁹ Mr. Pfeiffer contended that this could have been accomplished in 2006 for only a few thousand dollars,²³⁰ however, his initial estimate was woefully inadequate and reflected the fact that he has never designed a high-voltage transmission line. At the hearing, Mr. Pfeiffer offered an amended cost estimate which was based primarily upon documents EKPC provided early in the case. What was apparent, however, is that Mr. Pfeiffer misunderstood the nature of the documents he was reviewing. For instance, he cited an apparent contradiction between documents provided by EKPC and Ms. Warner's testimony to conclude that Ms. Warner's estimate was much too high.²³¹ In fact, the document Mr. Pfeiffer relied upon was simply a preliminary cost estimate that proved to be too optimistic with regard to the cost of taller poles for the structures on the Barkers' property.²³² As Ms. Warner testified, the actual costs were significantly higher.²³³ Thus, in using a preliminary figure which was too low, Mr. Pfeiffer extrapolated a multiplier which rendered the other components of his new estimate inaccurate as well.²³⁴ EKPC's estimate of the cost to relocate the line at the time of construction – based upon actual costs – is

²²⁹ See HVR 11:00:13 (July 1, 2014). Following the hearing, the Barkers have requested that the transmission line be moved 309 feet. See Note 250 and accompanying text, *infra*.

²³⁰ See Pfeiffer Report, pp. 4, 10, 16 and 102.

²³¹ See HVR 15:00:15 (July 1, 2014).

²³² Cf. EKPC Response to Commission Data Request 6, Exhibit 6-B-2 (filed Nov. 21, 2013) (providing documentation of preliminary cost estimates); EKPC Response to Barkers' Data Request 16 (June 23, 2014) (providing actual cost data).

²³³ See Warner Testimony, p. 23.

²³⁴ See HVR 15:01:27 (July 1, 2014). The Barkers' Hearing Exhibit 5 is unpersuasive because it continues the use of faulty data to arrive at a revised cost estimate suggested by Mr. Pfeiffer. The testimony of Ms. Warner, based upon actual cost data, is the most reliable information available.

an incremental addition of \$69,000 - \$72,000 to the total Project cost,²³⁵ which is very different from the cost savings achieved in the areas where deviations were actually made.²³⁶ Moreover, Mr. Pfeiffer failed to take into account the effect upon a residential dwelling that was located across the highway from the Barkers' residence in 2006.²³⁷ EKPC was justified in using its existing right-of-way as the basis for the replacement and upgraded transmission line and, frankly, had it incurred significant additional expense to deviate from an established and objective route development methodology endorsed by the Commission itself, to satisfy a concern that lacked objective scientific, engineering, medical or public policy support, EKPC would have opened itself up to greater criticisms of wastefulness.

At the hearing in this case, the Barkers frequently questioned EKPC's witnesses about the so-called "prudent avoidance" principle, which suggests that one should make prudent accommodations to avoid future risks. However, as Dr. Foster explained, such mitigation efforts in this context would not be based upon any scientific rationale.²³⁸ Instead, they would be geared primarily towards providing low-cost measures to reduce exposures, addressing public concerns, but providing no demonstrable or measurable health benefit.²³⁹ EKPC did what it could to prudently mitigate the Barkers' concerns regarding EMF by locating the additional right-of-way on the east side (away from the residence) of the existing easement and configuring the circuit phasing to minimize the strength of the EMF.²⁴⁰ The Barkers have failed to demonstrate how

²³⁵ See Warner Testimony, pp. 23-24.

²³⁶ See Notes 29-30 and accompanying text, *supra*.

²³⁷ See HVR 14:33:43 (July 1, 2014). The dwelling has since been demolished, but was identified during EKPC's routing process as a habitable dwelling.

²³⁸ See HVR 16:15:19 (July 1, 2014).

²³⁹ See *id.*

²⁴⁰ See HVR 11:58:23 (July 8, 2014); Notes 47-48 and accompanying text, *supra*. This is consistent with the Commission's Order in *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct Certain Electric Transmission and Distribution Facilities in*

incurring any additional expense to move the right-of-way several hundred feet across their property (as well as that of an adjoining landowner), together with the increased material and labor costs for moving the transmission line, would have been prudent. Moreover, they have failed to offer any objective evidence that the hazard they seek to avoid is genuine. In the absence of a demonstrable hazard, the scope of prudential expense which a utility can reasonably undertake is very limited under general standards of ratemaking.

To the extent that the Commission may take into account the principles of prudent avoidance, it must do so from another perspective as well. The Barkers knowingly constructed their residence right along the edge of EKPC's pre-existing easement and transmission line. Moreover, they did so with knowledge of the broad terms contained in EKPC's transmission easement, which were recorded as a matter of public record. The cost of prudently avoiding any concerns about the transmission line, then or in the future, would have been minimal if the Barkers had chosen to build their house somewhere further away from the existing line. Given that the line was already in place when they built their home, they were in the best position to prudently avoid any perceived future dangers.

The Barkers' request that the line should now be moved is unreasonable. The costs of replacing this line segment are much greater today,²⁴¹ and the Barkers believe that EKPC alone should bear the expense of the relocation.²⁴² Upon cross-examination, Brooks Barker conceded that at least one other property owner would likely be affected by such an Order, and agreed that

Bullitt, Shelby and Spencer Counties in Kentucky, Order, Case No. 1991-00082 (Ky. P.S.C., Oct. 19, 1992), wherein EKPC indicated it would roll the circuits to minimize EMF strength and would not construct a new transmission line in such a way that any existing structures would fall within the right-of-way. In this case, EKPC could not avoid the Barkers' garage and carport which had already encroached onto EKPC's original right-of-way.

²⁴¹ See HVR 14:34:14 (July 8, 2014). Ms. Warner estimated the costs to move the transmission line to the east would range from \$500,000 to \$1,000,000 and emphasized that this did not include any right-of-way acquisition costs, legal expenses or other potential costs.

²⁴² See HVR 11:07:40 (July 1, 2014).

EKPC did not have the sole ability to require that landowner to consent to the necessary shift in the transmission line easement upon his property.²⁴³ Should the Commission order the relief requested by the Barkers, it is quite possible that the affected landowner would challenge EKPC's right to condemn the necessary easement for the simple reason that EKPC already has obtained an easement upon his property.²⁴⁴ Such a challenge would bring the Barkers' complaint full circle as EKPC would again be litigating property rights in the Clark Circuit Court. The Barkers' characterization of the matter as being solely one pertaining to health and safety is incomplete – very real property rights of at least one person not a party to this proceeding are implicated by the Barkers' request.

Even more troubling, if the Commission were to grant the Barkers' requested relief, it would essentially eviscerate the property rights of EKPC and all other public utilities operating in Kentucky. Mr. Pfeiffer opined that a utility must relocate a transmission line away from an encroaching structure whenever it chooses to upgrade the line to a higher voltage, even if it requires abandoning the utility's existing easement.²⁴⁵ If a landowner has the ability to force the relocation of a transmission line replacement or upgrade by "coming-to" the transmission line and locating themselves within a zone which they subjectively perceive to be unsafe, then the contractual bargain set forth in a transmission line easement and the fundamental legislative purpose set forth in KRS 278.020(2) have no meaning and public utilities will forever be at the mercy of landowners. Such an outcome is exactly the result which the General Assembly has expressly sought to prevent. KRS 278.020(2) plainly incentivizes the replacement and upgrade of existing lines.

²⁴³ See HVR 10:26:06 (July 1, 2014).

²⁴⁴ See HVR 14:18:30 (July 8, 2014).

²⁴⁵ See HVR 14:13:16 (July 1, 2014).

IV. DISCUSSION OF THE POSSIBLE RANGE OF REMEDIES

The Commission's July 24, 2014 Order instructed the parties to provide "discussion, with supporting legal authority, on the possible range of remedies available to the Commission in adjudicating this matter, including the available remedies in the event a CPCN were to be required for the project."²⁴⁶

A. EKPC's Remedy of Dismissal with Prejudice

The remedy requested by EKPC is simple – the complaint should be dismissed with prejudice on the basis that the Barkers have failed to carry their burden of proof that the transmission line is somehow unsafe. The facts and law supporting this remedy are detailed throughout the brief above.

B. The Barkers' Remedy of Relocating the Transmission Line

On the other end of the spectrum, the Barkers appear to be requesting that the Commission require EKPC to move the transmission line 250-309 feet further to the east. This is an extraordinary remedy which, based upon research and the existing record, lacks any support in law, fact or Commission precedent. Moreover, the burden of proof in this case is upon the Barkers to affirmatively prove that the remedy is authorized by law and justified by the facts of the case; EKPC has no obligation to affirmatively disprove the Barkers' theories and opinions. With these points in mind, EKPC does not believe that the Barkers' remedy is warranted by applicable law or the facts of this case.

With regard to the law, KRS 278.280 permits the Commission to "determine the just, reasonable, safe, proper, adequate or sufficient rules, regulations, practices, equipment, appliances, facilities, service or methods to be observed, furnished, constructed, enforced or employed and shall fix the same by its order, rule or regulation." However, there exists no

²⁴⁶ See Order, p. 2 (Ky. P.S.C., July 24, 2014).

governing authority that provides a legal standard against which the safety of the transmission line could be compared. The Barkers have not provided, and cannot provide, the Commission with a single persuasive or authoritative source that indicates the line is unsafe. Despite nearly four decades of scientific study and public policy discussion on the topic, there are no federal, RUS or Kentucky EMF standards to apply in this case.

In essence, the Barkers are advocating that the Commission adopt its own EMF standard, and, based upon that unique and newly-created standard, declare the transmission line unsafe. The standard for which the Barkers advocate is extremely restrictive (2 mG or less), not supported by scientific evidence and based upon unconvincing testimony. The record demonstrates that there is no factual support for the Commission to create a new legal standard for EMF exposure that would itself justify an Order requiring EKPC to relocate the transmission line. To do so, the Commission would have to adopt an EMF standard more restrictive than any other state's EMF standard and one which is thousands of times below any science-based standard for occupational or general public exposure. The implications of requiring a utility to relocate a transmission line solely in order to assuage the subjective perceptions of landowners will have profound impacts upon EKPC and its customers, other utilities, other landowners and property law in general.

C. Remedies Available in the Event a CPCN was Required

The foregoing analysis does not change in the event that the Commission determines a CPCN was required for the Project because the remedy now sought by the Barkers is presumably the same remedy they would have sought in any CPCN proceeding. In either case, the Barkers must offer credible, reliable evidence that the transmission line is somehow unsafe in order for any changes to the existing route to be made. Thus, whether a CPCN was required is a separate

question from whether the transmission line is unsafe. If the Commission finds that a CPCN was required, which EKPC denies should happen for the reasons set forth herein, then the implication would be that KRS 278.020 was violated. The “remedy” for such a finding is found in KRS 278.990 alone, and would likely take the form of a separate “show cause” proceeding wherein the willfulness of the alleged violation would have to be determined. In any event, whether a violation of KRS 278.020 has occurred is a question that does not directly involve the Barkers or their safety claims presented herein. Moreover, the Commission cannot require EKPC to relocate the transmission line solely because of a failure to seek a CPCN as such a remedy is not contemplated or authorized in KRS 278.990. The Commission’s authority with regard to service that is alleged to be “unsafe” is set forth exclusively in KRS 278.280.

V. SUMMARY OF SETTLEMENT DISCUSSIONS SINCE JULY 29, 2013

The Commission’s July 24, 2014 Order also instructed the parties to provide “a report on the status of any settlement negotiations held since July 29, 2013,” which was the date that EKPC tendered its Offer of Settlement.²⁴⁷ The Offer of Settlement was formally rejected by the Barkers on September 12, 2013, although they pledged “to engage in meaningful settlement discussions in the presence of a representative of the Commission at a place and time convenient for all parties.”²⁴⁸ This did not happen at the February 5, 2014 informal conference, however, as the Barkers instead chose to simply request a hearing date.²⁴⁹ No counteroffer was ever made by the Barkers prior to the conclusion of the hearing on July 8, 2014.

Upon receipt of the Commission’s July 24, 2014 Order, EKPC’s counsel contacted the Barkers’ counsel and requested the Barkers to make a written counteroffer for a settlement of all

²⁴⁷ See Order, p. 2 (Ky. P.S.C., July 24, 2014); EKPC Offer of Settlement (EKPC Hearing Exhibit 1).

²⁴⁸ Barkers’ Response to EKPC’s Offer of Settlement (filed Sept. 12, 2013).

²⁴⁹ See Informal Conference Memorandum (Feb. 6, 2014); EKPC’s Comments to the Informal Conference Memorandum (filed Feb. 10, 2014).

claims asserted, or that could be asserted in the future, by the Barkers in this proceeding or in the Clark Circuit Court. The Barkers tendered a written settlement demand on August 4, 2014 which included dismissing both pending actions, EKPC's relocation of the transmission line 309 feet to the east and the payment by EKPC of \$30,000 to the Barkers. On August 5, 2014, however, the Barkers revised their settlement demand to provide that if EKPC agreed to move the line and pay the \$30,000, the Barkers would only be willing to dismiss the Clark Circuit Court case. On August 14, 2014, EKPC tendered another settlement offer which, at the time of submission of this Brief, is still pending.²⁵⁰ So long as the Barkers are unwilling to settle all existing and threatened future claims in one global settlement, there is little likelihood that a settlement might be successfully negotiated.

VI. CONCLUSION

The Project was a replacement and upgrade of an existing transmission line, except for two small segments totaling less than one mile in length, and accordingly no CPCN was necessary for the Project. Nevertheless, the Barkers, in essence, ask the Commission to retroactively hold EKPC to a standard that does not exist in order to address a concern that has never been scientifically or medically explained or accepted. The request is unreasonable and an Order supporting the request would have profound consequences for all utilities providing service to the public in Kentucky, as well as to their ratepayers. EKPC has done everything in its power to reasonably accommodate the Barkers, but the fact remains that they built their home immediately adjacent to EKPC's transmission line with full knowledge that the time could one day come when EKPC needed to replace and upgrade the line. They cannot now seek to force

²⁵⁰ A copy of the correspondence between counsel for EKPC and counsel for the Barkers is attached hereto and incorporated herein collectively as Exhibit 1.

others to accommodate what they apparently believe to have been a bad decision. The Barkers have failed to demonstrate why this is necessary.

WHEREFORE, on the basis of the foregoing, EKPC respectfully requests the Commission to enter an Order dismissing the Complaint for the reasons set forth above.

This 15th day of August, 2014.

Respectfully submitted,



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and

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4775 Lexington Road
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*Counsel for East Kentucky Power
Cooperative, Inc.*

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the foregoing has been served, by delivering same to the custody and care of the U.S. Postal Service, postage pre-paid, this 15th day of August, 2014, addressed to the following:

Mr. Alex Rowady, Esq.
212 South Maple Street
Winchester, KY 40391



*Counsel for East Kentucky Power
Cooperative, Inc.*

Goss • Samford PLLC



David S. Samford
david@gosssamfordlaw.com
(859) 368-7740

July 28, 2014

Settlement Communication

Via E-mail

Hon. M. Alex Rowady
Blair & Rowady, P.S.C.
212 South Maple Street
Winchester, Kentucky 40391

Re: Barker vs. East Kentucky Power Cooperative, Inc.
PSC Case No. 2013-00291

Dear Alex:

It was a pleasure speaking with you earlier today. As we discussed, the Commission's Order, entered last Thursday, requested an update as to any settlement negotiations that have taken place since July 29, 2013, which was the date that EKPC tendered its offer of settlement in the above-captioned case. In light of the Barkers' rejection of EKPC's offer of settlement, on or about September 12, 2013, I am requesting that you consult with your clients and provide me with a written demand so that EKPC can determine if there is a reasonable likelihood that a global settlement of any and all claims, currently pending or that could be asserted in the future, could be successfully negotiated. Given the need to complete our brief, and incorporate the additional issues raised in the Commission's latest Order, please provide me with the written settlement demand no later than Monday, August 4, 2014, or sooner if possible.

I look forward to your response.

Very truly yours,

David S. Samford

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PSC Case No. 2013-00291\Correspondence\Ltr. to Alex Rowady - 140725.docx

BLAIR & ROWADY, P.S.C.

ATTORNEYS AT LAW

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Kimberly Carter Blair

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Michael A. Rowady

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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-CI-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. Samford, 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

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Michael A. Rowady

212 South Maple Street
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August 5, 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

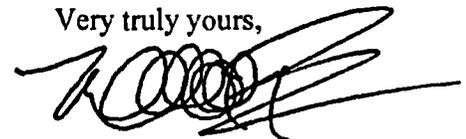
Dear David:

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)

Goss ■ Samford PLLC



David S. Samford
david@gosssamfordlaw.com
(859) 368-7740

August 14, 2014

Settlement Communication

Via E-mail & U.S. Mail

Hon. M. Alex Rowady
Blair & Rowady, P.S.C.
212 South Maple Street
Winchester, Kentucky 40391

Re: Barker vs. East Kentucky Power Cooperative, Inc.
PSC Case No. 2013-00291

Dear Alex:

Thank you for your letters of August 4th and August 5th. As I mentioned in my July 28, 2014 letter, East Kentucky Power Cooperative, Inc. ("EKPC") believes that any settlement must be for any and all claims, currently pending or that could be asserted in the future, in the Clark Circuit Court, before the Public Service Commission or in any other venue. In light of your clients' unwillingness to include a settlement of the Public Service Commission matter in their revised August 5th settlement demand, EKPC must respectfully reject your counteroffer.

Nevertheless, EKPC continues to be willing to enter into a global settlement. I have been authorized by EKPC to make an additional settlement offer whereby EKPC will agree to pay to the Barkers an amount equal to the appraised value of their home with said appraisal to be conducted by an independent appraiser selected by the Public Service Commission. Unlike the original July 29, 2013 offer of settlement, this would not be a purchase of the Barkers' property and they would be free to continue to live in their current location should they so desire. It should also serve to cover any diminution in value of their property resulting from EKPC's expanded easement. In return, the Barkers would dismiss the pending actions and enter into customary documents to reflect the settlement agreement and release and indemnify EKPC from any further claims.

I look forward to your response.

Very truly yours,



David S. Samford