COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITES COMPANY FOR THE CONSTRUCTION OF TRANSMISSION FACILITIES IN JEFFERSON, BULLITT, MEADE, AND HARDIN COUNTIES, KENTUCKY	)	CASE NO. 2005-00467
JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY FOR THE CONSTRUCTION OF ALTERNATIVE TRANSMISSION FACILITIES IN JEFFERSON, BULLITT, MEADE, AND HARDIN COUNTIES, KENTUCKY	)	CASE NO 2005-00472

CUNNINGHAM, CDH PRESERVE, LLC, HARRISON AND HARDIN PROPOSED ORDER

I. INTRODUCTION

This matter is before the Commission pursuant to KRS 278.020 on the consolidated joint applications of Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities ("KU") for a Certificate of Public Convenience and Necessity for a proposed 42.03 mile 345 kV transmission line, or for an alternative 43.9 mile route. Both routes are proposed to be constructed from the LG&E Mill Creek Generating Station in Jefferson County, through Bullitt, Meade and Hardin Counties, to the KU Hardin County Substation in Elizabethtown. Case No. 2005-00467 seeks certification for the 42.03 mile route ("Mill Creek to Hardin County Route No. 1") and Case No. 2005-00472 seeks certification

for the 43.9 mile route ("Mill Creek to Hardin County Route No. 2"). The stated purpose of the proposed transmission facilities is for the transmission of electric power from the proposed 750 MW nominal net (732 MW summer rating) supercritical, pulverized coal-fired base load generating unit to be located at the Trimble County Generating Station ("TC2"). The approximate cost of Route No. 1 is $57.7 million.

Because the Applicant has failed to satisfy this Commission's requirements for certification, the application is denied.

II. PROCEDURAL BACKGROUND

A. Application

LG&E/KU filed the application for Route No. 1 on December 22, 2005 and for Route No. 2 on December 23, 2005. The applications were ordered consolidated and a scheduling order issued. Subsequently, LG&E/KU determined certain deficiencies concerning notice and revised applications were filed on January 27, 2006, and a revised scheduling order was issued. Subsequently, LG&E/KU made certain revisions to Route No. 1 on February 17, 2006. On February 1, 2006, the Commission issued a revised scheduling order.

B. Intervenors

The following persons/entities intervened with counsel by February 27, 2006 and actively participated before the

Commission:

Dennis L. and Cathy L. Cunningham are owners of CDH Preserve, LLC which owns real property located at 2697 Bethlehem Academy Road, Cecilia, Kentucky 42724, that will be adversely affected by the proposed Route 1 or "preferred" Transmission Line to run from Elizabethtown Substation to Mill Creek Generation Station. The affected property is a 150 acre private nature preserve, with deed recorded in the name of CDH Preserve, LLC, a real estate holding company registered with the state of Kentucky and Indiana for the purpose of land preservation, specifically farm ground, and which company is engaged in the protection of land as habitat for wildlife, and for future generations. The Cunninghams were previously granted full intervention in Case 2005-00142.

Lisa Harrison, of 2352 New Salem Church Road, Vine Grove, Kentucky 40175, is a property owner of a 51 acre tract of land that will be impacted by the proposed Route 1 or "preferred" transmission line to run from Elizabethtown Substation to Mill Creek Generation Station.

Jennifer Hardin resides at 230 Aulbern Drive East, Mount Washington, Kentucky 40047, is the sister of Lisa Harrison and has inheritable interests in the property located at 2352 New Salem Church Road, Vine Grove, Kentucky 40175, that will be completely dissected by the installation of the new transmission

line.

C. Public Hearing

The Cunninghams, CDH Preserve, LLC, Lisa Harrison and Jennifer Hardin (collectively "Cunninghams") and others requested a Public Hearing. The revised scheduling order set the date and place as March 6, 2006, at 6:00 p.m. in Elizabethtown, Kentucky. One hundred nine people attended, with twenty nine making oral comments and others submitting written comments. These comments included those of State Representative Jimmie Lee who urged that the Commission deny the applications, that Case No. 2005-00467 was just a rehash of the line rejected by the Commission last year, and that both Case No. 2005-00467 and Case No. 2005-00472 should be rejected because neither accomplished adequate collocation along existing right-of ways. These comments were endorsed by State Representative Gerry Lynn. Almost every speaker urged the Commission to reject the applications and require more collocation with existing utility or transportation right of ways.

D. Evidentiary Hearing

The Commission held an evidentiary hearing on March 28, 29, and 30, 2006, in Frankfort Kentucky.

III. PROCEDURAL ISSUES

The applications filed by LG&E/KU recognize that on May 11, 2005, these same applicants filed an identical application in

Case No. 2005-00142 for the same route as Mill Creek to Hardin County Route No. 1, except for a small dog leg around the lake of the Cunninghams, which revision resulted in the revised distance and costs as submitted on February 17, 2006. The application in Case No. 2005-00142 was denied by a Commission order dated September 8, 2005, which order was not appealed.

Based upon the foregoing, Cunninghams moved before the hearing that the entire record of Case No. 2005-00142 be made a part of this record, which motion was granted.

LG&E/KU moved that the Commission find that the portion of the Commission Order in Case No. 2005-00142 that found that LG&E/KU met the burden of showing need for the transmission facilities precluded any intervenors from contesting need in this proceeding based upon the doctrine of *res judicata*.

The Cunninghams moved that the Commission deny the application in 2005-00467 based upon the doctrine of *res judicata*.

The Commission denied both the LG&E/KU motion and the Cunningham motion.

IV. THE STANDARD OF REVIEW

CPCN STANDARD

The issues to be decided in an application for a CPCN to construct facilities are (1) whether the facilities are needed and (2) whether the construction will result in a duplication of

facilities. *E.g., Kentucky Utilities Company v. Public Service Commission*, 252 S.W.2d 885 (Ky. 1952).

A. Need

1. Energy Forecasts

There is no dispute that the Mill Creek to Hardin County line is not needed until and unless TC2 is constructed. When the Commission decided Case No. 2005-00142, the Commission had not issued a CPCN for TC2, as that case was then pending for decision in Case no. 2004-00507. See Footnote 2, Order, September 8, 2005, Case No. 2005-00142. [Intervenors' Exhibit #4]. That case was decided November 1, 2005. [Intervenors' Exhibit #6]. Cunninghams refer to the analysis contained in the Order in Case No. 2004-00507 concerning the Companies' energy forecasts, as follows:

> The risk of granting a CPCN when one will not be required is that customers will pay for the new plant in the utility's rate base before it is needed; the risk of denying a CPCN when one is needed is that a utility will have to run high-price peaking units or buy high-price peaking power to meet the baseload requirements of its customers. The Commission believes the risk of the latter is of such significance that it should be avoided, if at all possible. We also believe the risk of the former can be managed by monitoring the accuracy o the Companies energy forecasts in the coming years. By examining whether actual energy sales are consistent with the Companies energy forecasts, the Commission, the intervenors, and especially the Companies can judge whether they need to speed up, slow down, or cancel construction before too much has been invested in the project.

Counsel for the Cunninghams cross-examined John Wolfram about the Companies' energy load forecasts at Response to PSC data request number 7, page 1, and the discussion of these forecasts at Liberty Consulting Group Final Report, dated February 27, 2006, at page III-3. Wolfram agreed that Liberty discussed the differences in forecast data from 2004 and 2005 to the year 2015, and found a small decline in energy need forecasts ("a slight revision downward"). [TE, Vol. III, page 94, lines 11-12]. Wolfram agreed that Response to PSC data request number 7, the Companies' energy forecasts show that the year 2014 is the first year where the LG&E 2004 energy forecast is higher than the 2005 forecast, that 2018 is the first year that the combined company 2004 forecast is higher than the 2005 forecast, and that 2019 is the first year that the 2004 KU forecast is higher that the 2005 forecast. [TE, Vol. III, page 97, lines 14-24]. He agreed that when looking at the forecast for 2020, the 2005 forecast of energy needs for LG&E was about 3% below the 2004 forecast. [TE, Vol. III, page 98, lines 13-19]. The Commission does not consider this reduction to be an insignificant reduction and finds that the language in the November 1, 2005 Order in Case No. 2004-00507 remains applicable. Specifically, by continuing to monitor the accuracy of energy forecasts, "the Commission, the intervenors, and especially the Companies can judge whether they need to speed up, slow down, or cancel construction before too

much has been invested in the project."

2. Other Options to Satisfy the Forecasted Load

The Cunninghams placed substantial emphasis in Case No. 2005-00142 on the evidence that there was another option that would meet the distribution requirements for TC2 without the need for the Mill Creek to Hardin County line, which option appeared to cost seven million ($7 million) less than the option selected. Specifically, MISO Option # 3 would cost $52.1 million and would integrate TC2 into the transmission system.

LG&E/KU selected the more expensive MISO Option # 4 at a cost of $59.1 million, because "LG&E/KU's system studies indicated that because of upcoming voltage problems, Hardin County would need an additional Mill Creek to Hardin County 345 kV source within 5 to 8 years after TC2 began commercial operation....At some point in the future, this 345kV line...will be needed." [Liberty Final Report, June 14, 2005, page III-3,4.]

The Cunninghams also placed emphasis in Case No. 2005-00142 on the testimony of Mark Johnson in Data Response to PSC Question 10, page 3 of 7: "This area of LG&E transmission system is expected to potentially have marginal voltage problems in the future." Mr. Johnson defined "potential" as [T]hat there is a possibility that there could be voltage issues in the future." Case No. 2005-00142, TE, page 121, lines 2-4. That witness agreed that the word "marginal" described the magnitude of the

problem from an engineering standpoint. Id, lines 8-10.

Here, the LG&E/KU witnesses agreed that the facts offered in support of the need for Mill Creek to Hardin County transmission line were not different in this case from the facts offered in Case No. 2005-00142.

The Cunninghams called Geoffrey Young as an expert witness, who submitted direct testimony that there are a number of other techniques and technologies currently available to address "upcoming voltage problems" that have not been analyzed by LG&E/KU and that could be less expensive than the seven million dollar difference between MISO #3 and MISO #4. The Companies called Michael Toll to respond to Mr. Young's direct testimony. Mr. Toll stated that the Companies had not analyzed any of the technological options cited by Mr. Young because they there were, in general, not applicable to the anticipated future voltage problem. [TE, Vol. I, page 56, lines 2-4.]

Mr. Toll testified that the anticipated future voltage problems "are primarily due to reactive load and reactive losses on the transmission system due to higher currents". [TE, Vol. I, page 57, lines 12-14.] Mr. Toll was asked during cross-examination whether each particular technology cited by Mr. Young could help solve the reactive load problem. He dismissed an article by Clark Gellings and Curt Yeager as not applicable to the anticipated problem of reactive load. Specifically, Mr. Toll

testified that power-electronics controllers are not an approach that could help address the anticipated problems in Hardin County. [TE, Vol. I, page 65, lines 7-21.] It is well-known within the power electronics industry, however, that power-electronics controllers are capable of precisely controlling the amount of reactive power that flows along transmission lines and, therefore, would be quite capable of solving any reactive power problems that might arise in Hardin County. [Young, Direct Testimony, page 9, lines 4-7.] If the Companies were to perform a technical and economic assessment of power-electronics controllers, they might find that the technology is too costly to constitute the lowest-cost solution to the anticipated voltage problems. However, that was not what Mr. Toll said. Without having done the analysis, Mr. Toll simply offered a blanket generalization that power-electronics controllers are not "applicable at the transmission level." [TE, Vol. I, page 65, lines 16-17.]

Mr. Young's direct testimony focused on several benefits of using small-scale distributed "electrical resources - devices that make, save or store electricity", enumerated and described in the book Small Is Profitable. In contrast to his general testimony in Case No. 2005-00142, Mr. Young focused in this case on technologies that address the specific issues of reactive power loss and voltage support that the Companies anticipate in

the Hardin County area. [Young, Direct Testimony, page 13, line 20 to page 16, line 16.]

After admitting he had not read Small Is Profitable, [TE, Vol. I, page 68, lines 1-8.], Mr. Toll attempted to explain why certain benefits are not applicable to the anticipated reactive power problem:

> As to the relevance of Benefit #110, "Distributed resources can reduce reactive power consumption by shortening the electron haul length through lines and by not going through as many transformers, both major sources of inductive reactance", Mr. Toll admitted that, in fact, this does relate to the problem of reactive load losses. However, Mr. Toll questioned "the significance of this benefit and the magnitude of this type of device that would be required to have a significant impact on the transmission system and this type of resource, should it develop, may delay the voltage problem by a short period of time, but it's not going to eliminate the need for the problem." TE, Vol. I, page 69, lines 1-7.] Mr. Toll admitted that "It has not been studied by me as a solution from a transmission perspective to the voltage issues at hand". [TE, Vol. I, page 69, lines 15-17.] Mr. Toll's response attempted to draw a quantitative conclusion while simultaneously admitting that he had not studied the option quantitatively. He provided nothing more than his hunch.

When asked about the relevance of Benefit #112, "Some end-use-efficiency resources can provide reactive power as a free byproduct of their more efficient design", Mr. Toll stated,

> "That, in effect, is the same as us installing distribution capacitors on the distribution system." He stated that he was not aware of any technologies or methodologies other than capacitors that would accomplish the cited benefit. [TE, Vol. I, page 70, lines 4-16.]

This response is dismissive in intent but not cogent in substance. In effect, Mr. Toll is saying that because he is not aware of any demand-side technologies other than capacitors that could provide reactive power to the grid, such technologies either do not exist or must necessarily be too insignificant in size to be applicable to the reactive power problem.

Benefit #113 stated that

> "Distributed generators that feed the grid through appropriately designed DC-to-AC inverters can provide the desired real-time mixture of real and reactive power to maximize value".

In giving his reaction, Mr. Toll mistakenly assumed that the added value from these supply-side technologies would accrue only to the customer and would not help the utility company address the reactive power problem. [TE, Vol. I, page 71, lines 1-6]. However, valuable reactive power can be provided to the grid by either supply-side or demand-side technologies. [Young, Direct Testimony, generally.]

One of the techniques Michael Toll used to dismiss several of the alternative technologies cited by Mr. Young was to label them either "generation" or "demand-side" technologies, which are handled by other functional groups within the corporation. [TE, Vol. I, page 73, lines 3-13]. The electric grid, however, does not make physical distinctions that mirror the Companies'

organizational chart. Mr. Toll's testimony reveals LG7E/KU's attitude of resistance to seriously consider new technologies that could solve reactive load problems in innovative ways.

In his redirect testimony, Intervenor's expert stated that Mr. Toll's testimony on cross-examination demonstrated that the utility has failed to quantitatively investigate a wide range of technologies and techniques that could provide the lowest-cost solution to the anticipated future voltage problems. [TE, Vol. III, page 165, lines 6-11.] The Companies have failed to do the analyses necessary to demonstrate that their proposed solution is the lowest-cost option; thus, they have failed to meet their statutory burden of showing that the proposed power line is in the public interest. Although the Companies have shown that some type of solution will be needed in the future to deal with voltage problems in the Hardin County area, they have failed to demonstrate the need for the particular solution they have proposed, the 345-kV transmission line.

Based upon the above testimony from this proceeding and the earlier Case No. 2005-00142, the Commission now sets aside the earlier finding in Case No. 2005-00142 that the Companies met the burden of proof to establish need. Therefore, when and if the Companies re-apply, they will be required to prove that the facilities are needed, and such proof shall include consideration of alternative means of addressing the Hardin County voltage

problem that may be less expensive than the difference between MISO #3 and MISO #4, and that may obviate the need for the Mill Creek to Hardin County line to be in place at the time TC2 begins operations.

Based upon the findings and conclusions set forth below, that the Companies failed to meet their burden of proof that this application would not result in wasteful duplication of facilities and that the Companies failed to respond to public comments in a manner that accomplish the legislative intent that the public be given a meaningful opportunity to have their concerns addressed, the Commission will deny this application.

B. Wasteful Duplication

1. The Guidance from Case No. 2005-00142

The mandate from the 1952 *Kentucky Utilities* decision to determine whether the proposed transmission lines would result in wasteful duplication of facilities was given careful consideration by this Commission in Case No. 2005-00142.

> The second issue, regarding the potential for duplication of facilities, is significantly more complicated and was fiercely contested. Public witnesses complained about a multitude of issues, such as splitting family farms, coming too close to residences, and destroying the potential marketability of properties for later subdividing.
>
> In *Kentucky Utilities,* the Court of Appeals, then Kentucky's highest court, defined "duplication of facilities" to mean that the Commission must examine proposed facilities "from the standpoints of excessive investment in relation to efficiency, and an unnecessary multiplicity of physical properties." *Id.* at 891. The Commission in that case had approved a

substantial expansion of East Kentucky Power Cooperative, Inc.'s ("EKPC") system, granting CPCNs for both generation and transmission facilities. The Court affirmed the CPCN for the generating plant, but remanded the case to the Commission to decide if the transmission lines proposed by EKPC would needlessly duplicate existing lines of other utilities, stating:
It is our opinion that the case should be remanded to the Public Service Commission for a further hearing addressed to the question of duplication from the standpoint of an excessive investment in relation to efficiency, and from the standpoint of inconvenience to the public generally, and economic loss through interference with normal uses of the land, that may result from multiple sets of right of ways [sic], and a cluttering of the land with poles and wires. *Id.* at 892.

The Commission recently issued a decision in Case No. 2005-00089 in which it rejected an application by EKPC to build a transmission line in Rowan County ("Rowan Order"). There the Commission set the standard for determining if a proposed line will create wasteful duplication of facilities, stating, "future applications should comprehensively consider the use of existing corridors in planning future transmission."

That case pointed out that, in deciding the issue, "the Commission must balance all relevant factors. . . , [including] the availability of an alternative route and the magnitude of the increased cost of that alternative route."

Nevertheless, the Commission is mindful of its duties in administering the law of the Commonwealth, and a key element of that law is the admonition from over half a century ago to guard against "multiple sets of right of ways and a cluttering of the land with poles and wires."

As the Commission discussed in the Rowan Order, a change in the law often results in some parties being caught in a dilemma wherein they began a process operating under one set of laws, and the laws change. **Sometimes, as here, this change results in a significant change in the approach the parties may need to take.** [Emphasis added].

While in the short term this transition may

> result in minor delays in the construction of lines, in the long term the Commonwealth and its citizens will benefit from a sharing of utility easements, **whenever possible.** [Emphasis added].
>
> The Commission invites LG&E/KU to reapply for a CPCN to construct the needed transmission facilities after the Company has conducted a more thorough review of all reasonable alternatives, including locating the line partially or fully along existing transmission corridors.

The Commission has quoted extensively from the Order in Case No. 2005-00142, because the Commission must find from the record before it that the Companies have failed to carefully heed the instructions contained in that order.

2. The Guidance from the Staff

The Companies' request for an informal conference following the September 8, 2005 order was a correct first response. They requested an informal conference with the PSC staff and the Intervenors in Case No. 2005-00142, which took place on October 5, 2005. See Intervenors Exhibit #5, the staff memorandum from that conference with the attached copy of the PowerPoint handout from the Companies.

3. The Applicants' Response to Staff Guidance

The Intervenors cross examined Mark Johnson, and John Wolfram, both of whom attended that meeting, and Brandon Grillion, who helped prepare the Companies' presentation at the informal conference.

a) Establishing the Need

Mr. Wolfram was cross examined about his direct testimony at page 5, which referred to the standards set forth in the Commission's order in Case No. 2005-00142, and his participation on the October 4, 2005 informal meeting, beginning at Transcript, Vol. III, page 94. He was asked to review the instructions from Commission staff as reflected in the minutes of that meeting [Intervenors Exhibit #5], beginning with, "First, the utility should establish the need." Id. page 95. He acknowledged that the energy forecast "has incurred a slight revision downward that does not materially affect the conclusions drawn in the first case regarding a need for this line. Id. at 94. He was the asked if the data submitted by the Companies in response to PSC Data Request 7 appeared to indicate that by 2020, there would be a reduction in total energy requirements for the companies overall of 1.5 percent, and for LG&E of 3 percent (comparing 2004 projections with 2005 projections), and the data appeared to indicate that the summer growth rate forecast through 2020 appeared to show a reduction in growth rate from a rate of 2.2 percent a year to 2.0 percent a year (comparing 2004 projections with 2005 projections), and he accepted the math and testified that he did not believe these differences would rise to the level that would require the Companies not to move forward. He testified that he did not consider the difference between a 2

percent growth rate and a 2.2 percent growth rate significant enough to warrant a change of Company plans regarding TC2 or the subject transmission lines. Id, pages 97-102. When asked what would he consider to be a significant reduction in rate of growth that would justify slowing down the schedule for construction, Mr. Wolfram answered that the question would require him to speculate and he would not answer. Id, page 102.

b) Identification of Lines that Work Electronically

Mr. Wolfram was asked if the Companies followed the second instruction, that "the utility should identify all lines that could work electronically, making sure to include corridors that utilize existing facilities, such as substations, lines and right-of-way." The memo reflects that staff explained that this instruction involved the meaning of "co-location", and that "The collocation could be on the applicant's own facilities; another electric utility's facilities; or other non-electric facilities, including natural gas, telephone, railroad, water, sewer, major highway, and others." Mr. Wolfram could not recall that the Companies considered collocation with telephone lines, railroad lines, or water and sewer lines. Id, page 104, lines 10, 20, and 24. Mr. Wolfram agreed with the earlier testimony of Mr. Grillion, that he was not aware of any communication with any other utility, and specifically Big Rivers Electric Co-op, about collocation on another electric utility's facilities. Id, page

105, line 16. He admitted that he was not aware of any documentation that there was any consideration given to sharing transmission facilities with another utility, at page 106.

c) Identification of Least Cost Route and the Cost of Alternatives.

Mr. Wolfram testified that the Companies had identified the "least cost" alternative as the third step, and had considered the rate impact both overall and on a per customer basis of alternative lines that are not "least cost". He affirmed his previous answer to the PSC Data Request No. 10 and No. 11, that a hypothetical cost difference of $10 million was, (subject to qualifications) "for a utility of the size and scale of LG&E and KU, the rate impact on any customer is negligible." Id, page 112, line 9. He affirmed that such impact appeared to be about $1.27 per customer per year in 2005 and $1.07 per customer per year by 2020. He was asked if he would reach the same conclusion if the Commission had asked the same question about a $20 million difference in capital improvements at page 113, lines 14-16 and 24-25 and page 114, lines 14-17:

> Q...does this take you to this page and simply double 1. $1.27 to $2.52?
> A. Roughly, yes.
> ....
> Q. Would you consider that impact to be negligible on your ratepayers?

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> A. I would state that moving from an impact of $1 a year to $2 a year I would still consider negligible, but the point at which that stops becoming negligible I'm not prepared to say.

The Commission has considered these applications without giving itemized attention to the cost components, in effect accepting the Companies cost estimates at face value. The Commission notes the difficulty of arriving at cost comparisons of over 1200 various routes and recognizes that this type of comparison will of necessity involve using some default cost numbers and some default assumptions.

However, Disk #1 in the Cunningham data request, response 1, contains cost estimates for all of the routes [See for example: Cost 2-7-06 all seq. 28 routes] and column "BY" is the assumption for need for condemnation. It appears that all route were assumed to require 50% condemnation. This assumption would appear to be overstated where an route was selected that accomplished 97% collocation with an existing route owned by these Companies or a route owned by another utility that could be shared.

d) Alternatives Analysis

Mr. Wolfram was then asked about the next instruction, "Then the utility should turn to an analysis of the types of considerations listed on slide 5 [of the PowerPoint]." This slide describes a methodology of weighing various alternative routes by considering the "Built Environment" the "Natural Environment" and "Engineering" factors. Mr. Grillion testified

earlier that he had helped prepare this slide by providing the numbers from the Georgia weightings. TE, Vol. II, page 207, line 23. He agreed that these weightings gave the highest rating is miles of rebuild with existing transmission at 65.6 percent. TE, Vol. III, page 120. He agreed that the least significant item under "Engineering" was "Total Project Cost." Id. page 122.

Mr. Wolfram admitted that there was no reference to "Expert Judgment" on slide 5, nor was that factor of route selection discussed at the meeting. He admitted that there was no mention of using the factor of cost of 125% over the "least cost" route as a cut-off that would eliminate all routes that exceeded that number, at page 124, lines 20-21. "No, we did not identify any particular screening criteria at this juncture".

He was then asked if this unspoken factor included as "Expert Judgment" had the practical effect of making total project cost the "trump card" over all other factors, and he denied that this factor had this effect. Id. page 125, l. 17. Mr. Wolfram was asked by the Commission Chairman where the number 125% came from, and why not use 133.3 or 150 percent? Mr. Wolfram replied that the number was derived from a reading of the Commission order in the East Kentucky case. Id. page 127.

4. Conclusion

Based upon the foregoing testimony, the Commission finds that the Companies' adoption of a factor of 125% of cost above

the "Least Cost" alternative as a factor that eliminates all routes that exceed that number is arbitrary and contrary to the instructions to the Companies in 2005-00142, in particular where it was not mentioned at the informal conference.

Intervenor Exhibit #12 (also Doherty attachment to Commission Data Request No. 21, page 2 of 2) indicates that Route ACQ accomplishes 97.79% collocation with utilities, and an additional 1.06% collocation with roads, at a cost of $74,588,719. Route ACU accomplishes 87% collocation with other utilities plus 1.08% collocation with roads, at a cost of $73,144,888. Route ADC accomplishes 82.57% collocation with utilities plus 1.11% with roads, at a cost of $71,488,948.

Route #1, (Route AJU) which the Companies identify as preferred, accomplishes 55.86% collocation with utilities plus 1.43% with roads, at a cost of $57,744,737. Route # 2 (Route AJW) which the Companies identify as their only alternative, accomplishes 66.29% collocation with other utilities plus 1.37% with roads, at a cost of $60,973,719.

We agree with counsel for the Cunninghams that the use of what may fairly be called an "arbitrary" cutoff of 125% of the least cost option has the clear practical effect of allowing cost to "trump" all other considerations. This is especially inappropriate when the Mr. Wolfram admitted that a $20 million dollar cost difference would have a negligible impact of the

average individual customer [TE, Vol. III, page 114, lines 14-15].

This use of "expert judgment" effectively prevents the Commission from the balancing described in both the EKPC and in the opinion in 2005-000142, "the Commission must balance all relevant factors. . . , [including] the availability of an alternative route and the magnitude of the increased cost of that alternative route."

The Commission finds further that the Companies failed to heed the instruction in Case No. 2005-00142 that was intended to require the Company to give increased weight and importance to collocation. See in particular the testimony of Mr. Grillion concerning his understanding of the Companies' response to the Commission order in Case No. 2005-00142, at TE, Vol. II, page 194, lines 12-15:

> Q. Did you interpret that sentence as meaning that LG&E should give increased importance to collocation?
> A. I don't think it should be increased importance, but it said that we should evaluate these routes.

Mr. Grillion was asked about other language in the prior order and he testified that he did not read the Commission order as instruction to give increased weight to collocation, at page 197, 198.

The Commission finds that the Companies failed to fully consider all alternatives for collocation where they failed to

consider sharing structures with other utilities, failed to consider all existing utility and transportation easements, failed to communicate with other utilities about shared rebuilding opportunities, and that such failure was contrary to the prior order of this Commission to these Companies.

Based upon the foregoing, the Commission finds and concludes that the Companies failed to meet their burden of proof to show that their application would not cause wasteful duplication of facilities, and must be denied.

IMPLEMENTING THE CHANGES REQUIRED BY THE 2004 GENERAL ASSEMBLY

The 2004 amendments were not intended to ratify the earlier judicial interpretations of KRS 278.020 as it applied to review and approval of electric transmission lines, but instead to supersede and to reverse what had been the state of Kentucky law concerning the rights of landowners who might be adversely affected by the siting of transmission lines. Among former law was the case of *Satterwhite v. Public Service Commission*, 474 S.W.2d 387 (Ky. 1971), where the Court considered and rejected the request of landowners over whose lands an easement had been condemned by Kentucky Utilities for location of a transmission line that a Certificate issued to Kentucky Utilities be set aside and that the matter be reconsidered at a new hearing in which the petitioners be entitled to participate.

It is equally apparent that the General Assembly, in amending KRS 278.020(2) and (8), sought to nullify the effect of *Duerson v. East Kentucky Power Cooperative*, 843 S.W.2d 340 (Ky.Ct.App 1992).

The Commission acknowledged as much in its regulations implementing the 2004 Amendments. In the Statement of Consideration relating to 807 KAR 5:120, filed with the Legislative Research Commission on October 15, 2004, the Commission rejected the contention of Big Rivers that the only issues in the case "are whether there is a need and demand for the service and whether [the line] construction would be a wasteful duplication of facilities." The agency responded that: The [Commission] believes that the legislative intent demonstrates that the views of Big Rivers and EKPC are far too limited. This issue in Kentucky has previously been guided by judicial decision. The key cases are *Satterwhite v. Public Service Commission*, 474 S.W.2d 387 (Ky. 1972), and *Duerson v. East Kentucky Power Cooperative, Inc.*, 843 S.W.2d 340 (Ky. Ct. App. 1992). *Satterwhite* decided two issues: (1) that individual landowners whose land was to be crossed by the transmission line are not interested persons and thus are not entitled to intervene because (2) the only issues were whether there is a need and demand for the service and whether its construction would be a wasteful duplication of facilities. In *Duerson*, the

court ruled that all transmission lines are extensions in the ordinary course of business and thus, under the exception of KRS 278.010, do not require a certificate. In requiring utilities to file a certificate case for transmission lines of a certain size and length, Chapter 75 (Senate Bill 246) directly overruled *Duerson*. The provision specifying that individually-affected landowners are interested persons who may intervene likewise directly overruled the contrary result in *Satterwhite*. Moreover, the latter provision expanded the issues the PSC may consider when such a landowner intervenes. If the only issues the landowner could raise were the ones delineated in Big Rivers' comments and in *Satterwhite*, allowing individual landowner intervention would make no sense. In fact, the legislative debate confirms a contrary intent. For example, in his comments in this rulemaking proceeding, Scott Hagan specifically talked about his testimony in committee on Senate Bill 246, and he pointed out, "Every legislator who spoke that day in committee indicated that the passage of this bill was intended for me and every property owner like me who deserves a hearing and an opportunity for an independent body (the Public Service Commission) to review the need for such a dramatic investment and the wisdom of its placement in the community. (Emphasis original). PSC Staff was present and heard similar testimony and legislators' comments indicating intent to overrule the limited

issue requirement in *Satterwhite*.

> The PSC believes the proposed regulation allowing individual landowners to intervene and raise their property-specific issues in a transmission certificate case is in furtherance of the legislative intent of the new statutory provisions.

Statement of Consideration Relating To 807 KAR 5:120, 4 (October 15, 2004).

The Commission is concerned that while the informal conference was being requested and conducted, as discussed above, the Companies took steps that call into question whether they were actually going back to the drawing board to seek "a thorough review of all reasonable alternatives, including locating the line partially or fully along existing corridors" or whether they were only seeking to provide more data to justify their prior decision.

See testimony of Brandon Grillion concerning Cunningham data request 8, page 4, which was an email from Fort Knox personnel on September 12, 2005, which asked,

> It looks like we can move forward marking the timber for the appraisal if LG&E is for certain that the ...right of way ...is still going to have to cross Ft. Knox...and the marked ...right-of-way…is where we have it now. Or do we need to be prudent to see if any changes are proposed for PSC approval?

Mr. Grillion acknowledged that he responded with a telephone conversation that told Fort Knox personnel to "keep on going". See Transcript, Vol. II, page 237, lines 19-21:

Q. So your answer was, in effect, "Keep on going
A. To keep marking the right-of-way for the timber appraisal; yes sir.

C. KRS 278.020 and the Role of the Public

1. Case No. 2005-142

It is impossible to understand the background of this case without some discussion of Case 2005-00142, the record of which has been made part of the record in this case. As that record makes clear and as the applicants acknowledge, the preferred alternative in this case is essentially identical to the preferred alternative in that case. The process by which the preferred alternative in case 2005-00142 was decided might charitably be described as murky. As we observed in denying that application, "something went very wrong with the Company's analysis." The applicants appeared to be using a model developed by the Georgia Power Corporation for the use of siting transmission lines in Georgia but because there was a complete lack of documentation about how the model was used—if in fact it was used at all—there was simply no way to tell how the preferred alternative was chosen. In denying the application in case no. 2005-00142, we therefore made two things clear: 1)it is our intention that there is to be a "significant change" in the approach utility companies need to take in the way transmission lines are sited, and 2) in the long term the Commonwealth and

its citizens will benefit from a sharing of utility easements, whenever possible.

2. The Applicants Have not Made a "Significant Change" in their Approach

a. The Applicant's Approach to the Problem

Having been chastened by the denial of their application in Case No. 2005-00142, the applicants went to some lengths to describe how it was that they arrived at an identical result in this case. Initially, they seemed to believe that it was their job to create more data to support their conclusion. Immediately after the order denying their application, therefore, they directed their consultant Photo Science to gather more data. After an informal conference with the PSC staff, however, they realized that more would be required as has been discussed above. Realizing that collection of more data alone would not meet these requirements, they then hired a consultant already at work on the old preferred alternative, Clayton Daugherty, to do an "independent study" of all possible routes.

The result of the combination of data collection and studies is a truly impressive—indeed a staggering—amount of data. Unless we are to base our rulings on quantity alone, however, we must look beyond sheer volume to determine whether the applicants have followed our direction to undertake a "significant change in

the approach" they take to their transmission line routing decisions.

3. Previous Siting Methodology

Prior to the amendment of KRS 278.020, utility companies were free to site transmission lines without regard to a requirement for public comment or the need to demonstrate public convenience and necessity. In the words of the Liberty Consulting Group's Report (Staff Exhibit 1 at III-5): "In the past, transmission siting was either an 'out of sight—out of mind' or a 'path of least resistance' situation." This is the experience that the Applicants have enjoyed until the 2004 legislature changed the rules. In this system, decisions were made outside of any public scrutiny. There was no need to document a rationale for a decision other than the fact that it had been made. The public enjoyed no role whatsoever in decisions involving transmission routes until the utilities knocked on the door to negotiate the purchase of an easement for a route segment crossing a particular piece of property. Utility companies acted as unelected judges of what was best for the common good not only on matters of engineering—at which they have obvious expertise—but on public policy issues such as land use as to which they have no expertise at all. In this process, the public was assumed to be uninformed and selfish—unable to see beyond the border of their individual interests to the common

good with nothing to offer the companies on the larger issues of necessity and convenience.

4. The Role of the Public Today

Issuance of a Certificate of Public Convenience and Necessity is now governed, however, by the requirements of Senate Bill 246, which was enacted by the 2004 General Assembly to provide a forum for the consideration of the environmental impacts of proposed transmission line facilities and to empower local communities and landowners that might be affected by the location of proposed transmission lines. Pursuant to Senate Bill 246, now KRS 278.020(2) and (8) ("the 2004 Amendments"), the construction of transmission lines carrying 138 or more kVs for more than 1 mile in length, formerly matters of extension that were considered to be "in the usual course of business," became matters requiring a Certificate of Public Convenience and Necessity. The clear intent of the statute was to allow for public scrutiny of such line constructions and to require the Applicant and this Commission to consider the resulting impacts on private and public landowners in the corridors.

The 2004 Amendments created three new elements of review: the requirement that a Certificate of Public Convenience and Necessity be issued for the construction of this class of transmission lines, the public's right to a hearing on all issues related to a proposed project, and a corresponding obligation of

the utility-applicant to justify its proposal. Where formerly the Commission confined itself to issues of electrical necessity and duplication of services, the 2004 Amendments reflect a clear legislative intent that the concerns of landowners and other interested parties regarding the adverse effects of the routing and construction of these lines be evaluated in determining whether and under what conditions to certify an application. To ensure that electrical cooperatives adequately considered the impacts and alternatives, the 2004 Kentucky General Assembly created a new process for issuance of a Certificate of Public Convenience and Necessity. In the event that an applicant fails to sufficiently consider public input in selecting a preferred route, the applicant violates legislative intent.

5. Discussion

It is clear from the evidentiary hearing that the applicants have not yet accepted this mandate. The routing decision made in case no. 2005-00142 was clearly made under the old system. Other than a power point presentation made by consultants which appeared to be internally inconsistent the applicants offered no documentary support for their selection methodology. There was no attempt to involve the public at a point when input would have any real meaning. It was only after the applicants had selected a preferred alternative that letters announcing the applicants' decision were sent to landowners

targeted for easement acquisition. Input received as a result of the mandated public meeting had no impact on the companies' decision.

To put it simply, other than surrounding its decision with masses of data which are apparently unrelated to the decision itself, nothing has changed in the companies' route selection process for these cases. First, the decision was identical to the preferred alternative in Case No. 2005-142, a highly unlikely outcome for an objective process. Second the decision was made only 39 days after the informal conference. Third, the decision was made by one person: Mark Johnson, the same decision maker in Case No. 2005-00142. Fourth, the routes selected were not even in the top 50 routes for collocation. Fifth, the routes with greater collocation were rejected through a process called "expert judgment." The method by which this judgment is exercised is not codified and results in little or no documentation. As Michael Canatta testified, "expert judgment rose as a concern during the interview because the company had little to no documentation of how they got from the top 50 list down to the answer. . . ." [TE, Vol. II, page 134]. Sixth, the description Mr. Johnson gave of his methodology reveals that it is nothing more than the exercise of siting prejudices he has developed over the years which find no support in Kentucky law, PSC decisions, or staff guidance. These prejudices include: 1)

a preference for choices which use open space as opposed to developed areas, and 2) a strong preference for avoiding home relocations. Seventh, the decision was made without any public consultation before the preferred alternative was chosen. [TE, Vol. III, page 23]. Eighth, the testimony as to special features on the property delivered at the public meeting had no affect on the preferred alternative. [TE, Vol. III, page 26]. The inescapable conclusion is that the applicants have continued to do what they have always done in making their selection. Their only concession has been to increase the amount of paper surrounding, but truly unrelated to, their decision. It is thus no surprise that Mr. Johnson and the applicants arrived at an identical decision in this case as in Case No. 2005-00142. As Mr. Canatta observed: "When you have people that have been into a company for 50 years or 30 years doing a lot of siting work you do get that consistency."

In an effort to bolster their undocumented "expert judgment," the applicants hired Clayton Daugherty, a consultant that they had already hired to work on environmental matters on the preferred alternative in Case No. 2005-00142. Tr. II at 284. He did not do an independent study, however. Instead he took the data provided to him by LG&E (Tr. II at 286)and attempted to apply that data to siting model developed by Georgia Transmission Corp. which the company claimed to have used. He had never

himself used the model. Tr. II at 287-88 and he quickly learned, however, that the applicants hadn't either. Instead they used only that part of the model related to alternative selection and had ignored the model's macro corridor selection process. Tr. II at 288. This meant that it was impossible for Mr. Daugherty to use the model without making his own modifications to it . Tr. II at 288. He acknowledged on cross examination that if one is to use the Georgia model, it is better to use the whole model and not just parts of it. Tr. II at 292-93.

Tellingly, one significant consequence of the applicants' failure to use the macro selection portion of the Georgia model was that it allowed them to ignore its macro corridor selection requirement for landowner input. As Mr. Daugherty acknowledged, "the stakeholder model is a very important part of the GTC-EPRI model because it allows the community interests and concerns to have a voice in routing the line . . . ." TE, Vol. II at 288.

We conclude, therefore, that the Applicants did not follow our guidance that they must make a significant change in the methodology they use in siting transmission lines and that their applications must be rejected for this reason.

6. Was the Siting Decision Reasonable?

Although we have now found that the applicants did not make the significant change in their methodology we now require, a final question remains: notwithstanding this failure, is the

preferred alternative nevertheless reasonable? In support of this position, the applicants have cited the testimony of Clayton Daugherty and Michael Cannata, both of whom found the Applicants' results reasonable. First, as regards Mr. Daugherty's conclusion, it must be observed that he used the Applicants' data unaudited and only talked to company witnesses. TE. VOL. II, pages 287, 284. This included a blind acceptance of the Applicants' cost estimates. TE. VOL. II page 313. He also accepted Mark Johnson's preferences for avoiding impacts to homes and neighborhoods (Tr. II at 302) although he acknowledged that there was nothing in the law, PSC decisions or staff guidance that directs these preferences. TE, VOl. II, pages 302-03. Thus his conclusion that Applicants' decision is reasonable amounts to nothing more than a conclusion that they were successful in doing what they said they were doing—avoiding impacts on homes and neighborhoods—not on whether these preferences are appropriate or reasonable.

Mr. Canatta's conclusion is subject to the same observation. He didn't audit the Applicants' data (TE. Vol. II, pages 123-124, only interviewed company employees and consultants (TE. Vo. II, page 124), and accepted the Applicants preference to giving preference for avoiding moving residences over the protection of open space. (TE. Vol. II, page 133) He admitted, therefore that when he testified that the routing decision was reasonable,

what he meant was that Mr. Johnson had succeeded in doing what he said he was going to do, not whether his preferences were reasonable. TE. Vol.II, page 181.

We conclude, therefore, that neither Mr. Daugherty nor Mr. Canatta's conclusions support the finding of reasonableness that the Applicants urge and offer no reason for us to find that the failure to make a significant change in their siting methodology was harmless error.

The Companies acknowledge that they were aware that the EPRI step that involves the macro corridor methodology is the step where the public is able to have input in the route selection process at the earliest opportunity - "that that's where the stakeholders come in". See testimony of Mr. Wolfram [TE, Vol. III, page 129, line 23], " A: That is my understanding".

Yet this step was eliminated, and the Companies suggest that such omission was per staff instructions, "Instead the Companies identified the areas of inquiry consistent with the Commission Staff's direction." Wolfram Direct Testimony, page 6, concerning use of the EPRI model. See Id. page 128, lines 13-15. When cross examined concerning this direct testimony, Mr. Wolfram admitted that they were not told by staff not to use the macro corridor methodology. Id. page 128, lines 18-19.

The minutes of the October 4, 2005 informal conference provide a somewhat different perspective. Intervenors Exhibit #5, "Staff believes responding to public comments is important in meeting the legislative intent of the new statute....Satisfying these complaints early in the process can eliminate them as issues in the case."

Clearly, the Companies do not yet see the need to hear from the public prior to making their route selection. See Mr. Grillion's answer to the question, concerning the Companies obligation to consider public concerns, did it "kick in" before the route was selected or did it not "kick in" until after the Companies selected the route, [TE Vol. II, page 202, line 20] "A. No, it did not kick in before".

The Commission finds and concludes that the Companies have failed to involve the public as early in the process as possible to seek to eliminate issues in the case, and that this failure includes the failure to conduct a macro corridor methodology as described in the GA EPRI process, and that such failure is contrary to the Commission's understanding of the legislative intent underlying the 2004 amendments.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing was duly served by first class mailing and postage prepaid to the following:

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This the 12th day of May, 2006.

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