

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

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

O R D E R

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 Company (“KU”) (together “LG&E/KU”) for a Certificate of Public Convenience and Necessity (“CPCN”) 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 (“Mill Creek”) 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 and Case No. 2005-00472 seeks certification for the 43.9 mile route. The purpose of the

proposed line is to support the integration of the Trimble County Unit 2 generating plant (“TC2”) into LG&E/KU’s generation fleet and to maintain the reliability of the transmission system.

### PROCEDURAL HISTORY

On November 18, 2005, LG&E/KU filed a notice of intent to submit an application for a CPCN for the construction of their preferred route for the Mill Creek to Hardin County Substation (“Route No. 1”). On November 22, 2005, LG&E/KU filed a notice of intent to submit a second application, this time for the construction of an alternative route for the line (“Route No. 2”). Both applications were submitted on December 22, 2005 and designated Case Nos. 2005-00467 and 2005-00472, respectively.

On January 6, 2006, the Commission issued an Order consolidating the two applications and entering a procedural schedule that set, among other deadlines, dates for motions to intervene, for filing of testimony, and for the evidentiary hearing. The January 6, 2006 Order also extended the time in which the Commission is required to process these consolidated cases, from 90 to 120 days, pursuant to KRS 278.020(6).

As part of the applications, LG&E/KU certified that they had sent notice to each property owner over whose property either of the two routes would cross and published a notice of the intent to construct the proposed transmission line in the newspapers of general circulation in each of the affected counties, all pursuant to 807 KAR 5:120.<sup>1</sup> On January 25, 2006, LG&E/KU notified the Commission that they had received information

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<sup>1</sup> Applications in Case Nos. 2005-00467 and 2005-00472, ¶¶ 12 - 13. LG&E/KU also notified landowners whose property appeared to be very close to the edge of the right-of-way for the proposed line in an effort to make sure that all affected landowners were notified if there were any distortions on maps used to locate the proposed line relative to property boundaries. Transcript of Evidence in Case Nos. 2005-00467 and 2005-00472 (“TE”), Vol. III, p. 33, lines 6 - 12; p. 62, lines 7 - 22.

indicating that additional affected property owners, not previously notified, had been identified and notified of the proposed line and these proceedings. In response, by Order of January 31, 2006, the Commission rescinded the procedural schedule established by its previous Order and set new local and evidentiary hearing dates for March 6, 2006 and March 28, 2006, respectively.

On January 6, 2006, the Commission granted full intervention to: Betty Coyle, Samuel Coyle, Ewona Coyle, Hansell Pile, Jr., Reverend John Brewer, Doris Addington, Betty Cowherd, W.D. Cowherd, Floyd Dodson, Irene Dodson, Bobby Estes, Mary Estes, Todd Estes, Marion French, Melissa French, George Graas, Willie Graas, Carol Huffer, Curtis Huffer, Mary Jent, Violet Monroe, Diane Owsley, August L. Rosenberger, Ronald Seagraves, Charles Thompson, Geraldine Thompson, James K. Thompson, Sandy Thompson, Kenneth Wimp, Robert White and Robin White. The Commission also granted full intervention to Dennis and Cathy Cunningham, Lillian Morris, and Harold and Lana Sampson on January 26, 2006, and to CDH Preserve, LLC, Lisa Harrison and Jennifer Hardin on March 10, 2006. Finally, the Commission allowed limited intervention for Harold Joseph on January 6, 2006, Loetta Morris on January 24, 2006, and George, Adam, Charley, John, and Karen House on January 26, 2006.

The Commission retained The Liberty Consulting Group ("Liberty") to assist it in evaluating LG&E/KU's applications in these proceedings. Liberty filed its final report ("Liberty Report") with the Commission on February 27, 2006. The Commission held a local public hearing on March 6, 2006 in Elizabethtown, Kentucky for the purpose of taking public comment on the applications. One hundred nine people attended, with twenty-nine making oral comments and others submitting written comments.

An evidentiary hearing was held at the Commission's offices in Frankfort on March 28–30, 2006. At the beginning of that hearing, the Commission granted a motion by Intervenor Dennis and Cathy Cunningham, CDH Preserve, LLC, Lisa Harrison, and Jennifer Hardin (collectively "Cunningham/Hardin Intervenor"<sup>2</sup>) to incorporate the record from Case No. 2005-00142 into these consolidated proceedings.<sup>3</sup> The Cunningham/Hardin Intervenor also moved that the Commission deny the application in Case No. 2005-00467 based upon the doctrine of *res judicata*. LG&E/KU moved the Commission to preclude any intervenors from contesting need in this proceeding based upon the doctrine of *res judicata*. The Commission denied both *res judicata* motions. LG&E/KU, Liberty, Intervenor Samuel Coyle, Mary Jent, and the Cunningham/Hardin Intervenor participated in the evidentiary hearing.

#### BACKGROUND

In these proceedings, LG&E/KU seek a CPCN for a transmission line running from the Mill Creek to the Hardin County Substation.<sup>4</sup> Facilities similar to this line were

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<sup>2</sup> Lisa Harrison and Jennifer Hardin are sisters. Cunningham, CDH Preserve, LLC, Harrison and Hardin Motion to Intervene and Request for Public Hearing, ¶ 8.

<sup>3</sup> TE, Vol. I, p. 49, line 13 to p. 52, line 9.

<sup>4</sup> LG&E will own that portion of the proposed line beginning at the Mill Creek Generating Station and running to the east boundary of the Fort Knox Military Reservation, and KU will own the remainder of the proposed line from the east boundary of the Fort Knox Military Reservation to the Hardin County Substation. Direct Testimony of Mark S. Johnson ("Johnson Direct") in Case Nos. 2005-00467 and 2005-00472, p. 4.

the subject of a prior application for a CPCN in Case No. 2005-00142.<sup>5</sup> In that previous case, the Commission determined that there is a need for additional 345 kV facilities between the generator and the substation to support the integration of TC2, but found that there was insufficient information to determine if the proposed line would result in a wasteful duplication of facilities. The Order indicated LG&E/KU could reapply for a CPCN after they had conducted a more thorough review of all reasonable alternatives, including consideration of locating the needed facilities partially or fully along existing utility corridors.<sup>6</sup> The applications in these consolidated proceedings were filed in response to that Order.

LG&E/KU have proposed two routes for the proposed transmission line in these proceedings. The first proposed route, preferred by LG&E/KU, follows a similar route as that proposed in Case No. 2005-00142. Specifically, that route, Route No. 1, differs from the route proposed in Case No. 2005-00142 only to the extent that it no longer crosses the pond on the property of Dennis and Cathy Cunningham, consistent with guidance from state and federal fish and wildlife officials.<sup>7</sup> LG&E/KU also submitted an

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<sup>5</sup> Case No. 2005-00142, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company For a Certificate of Public Convenience and Necessity For the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky.

<sup>6</sup> Final Order in Case No. 2005-00142, p. 11.

<sup>7</sup> Johnson Direct in Case No. 2005-00467, p. 3, lines 17 - 22. The United States Department of the Interior, Fish and Wildlife Service “strongly recommend[ed]” that the LG&E/KU divert the line as proposed in Route No. 1 because doing so would “avoid impacting all of the forested wetland areas while still remaining on the same property ownership” and would “exceed the [Service’s] buffer requirement by 72 feet, thus negating the need for any mitigative measures” to protect the whooping crane and other shorebirds and waterfowl. See Fish and Wildlife Service letter of October 31, 2005 to LG&E/KU, attached as Exhibit MSJ-5 to the Johnson Direct in Case No. 2005-00467.

application for a CPCN for Route No. 2, an alternative route for the Commission to consider if Route No. 1 was unacceptable. Route No. 2 is identical to Route No. 1 for much of its length, but it does follow a different path for approximately 10 miles on the southern portion of the line as it approaches the Hardin County Substation.<sup>8</sup> Route No. 2 achieves a higher percentage of collocation than Route No. 1, but also comes at a higher cost. LG&E/KU's preferred and alternative routes are being evaluated simultaneously in these proceedings.

### ANALYSIS

Under recent revisions to KRS 278.020, LG&E/KU must obtain a CPCN for the construction of any electric transmission facility of 138 kV or more and longer than 5,280 feet in length. Kentucky's highest court has construed "public convenience and necessity" to mean: (1) there is a need for the proposed facility or service; and (2) the new facility or service will not create wasteful duplication.<sup>9</sup>

#### Need

In Case No. 2005-00142, the Commission found that the Mill Creek to Hardin County 345 kV transmission line is necessary to support the integration of TC2.<sup>10</sup> In their pre-filed testimony, LG&E/KU witnesses Wolfram and Toll testified that there have

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<sup>8</sup> Application in Case No. 2005-00472, ¶ 8.

<sup>9</sup> *Kentucky Utilities Company v. Public Service Commission*, 252 S.W.2d 885, 890 (Ky. 1952).

<sup>10</sup> Final Order in Case No. 2005-00142, p. 6 (finding that "the need for the proposed line has been established and will be required upon commencement of operations at TC2"). That finding and all of the evidence supporting it were incorporated by reference into this proceeding in response to a motion by the Cunningham/Hardin Intervenor. TE, Vol. I, p. 49, line 13 to p. 50, line 13.

been no changes in the circumstances surrounding the need for the proposed line since the date of the Commission's finding of need in Case No. 2005-00142.<sup>11</sup> Liberty also concluded that the routes proposed in these consolidated proceedings did not affect the previous analysis of need for the proposed facilities.<sup>12</sup> On cross-examination, LG&E/KU witness Wolfram testified that there was "a slight revision downward" in the energy forecast data from 2004 and 2005.<sup>13</sup> The Commission finds that this change in the forecast is insignificant.

Accordingly, based on the evidence of record, the Commission reaffirms the holding from the Order in Case No. 2005-00142 that construction of a new 345 kV line between the Mill Creek and the Hardin County Substations is needed to support the testing and operation of TC2 beginning in the third quarter of 2009.

#### Duplication of Facilities

Having determined that there is a need for the proposed line, the Commission must now determine whether the construction proposed by LG&E/KU would constitute a wasteful duplication of facilities. "Duplication of facilities" has been defined as "excessive investment in relation to efficiency, and an unnecessary multiplicity of physical properties."<sup>14</sup> In Case No. 2005-00207 ("Warren Case"), the Commission

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<sup>11</sup> Direct Testimony of John Wolfram ("Wolfram Direct"), Case Nos. 2005-00467 and 2005-00472, p. 4; Direct Testimony of Michael Toll, Case No. 2005-00467, p. 3 and Case No. 2005-00472, p. 4.

<sup>12</sup> Liberty Report, p. III-4.

<sup>13</sup> TE, Vol. III, p. 94, lines 11 - 12. For the year 2020, the difference is only 1.6 percent. *Id.*, p. 98, lines 3 - 11.

<sup>14</sup> *Kentucky Utilities Company v. Public Service Commission*, 252 S.W.2d at 891.

stated that an applicant for a CPCN for transmission facilities must establish that “it has conducted a thorough review of all reasonable alternatives and then. . .show that its choice of the proposed route was reasonable.”<sup>15</sup> As a part of this two-step process, the applicant must show that it comprehensively considered the use of existing utility corridors and other rights-of-way.<sup>16</sup>

Comprehensive Survey. To meet the first of these requirements, the comprehensive survey including consideration of collocation with existing corridors, LG&E/KU began by attempting to identify all electrically feasible routes, including routes that utilize collocation.<sup>17</sup> LG&E/KU first reviewed the information developed in connection with Case No. 2005-00142.<sup>18</sup> They then expanded the study area to a much broader level than the area studied in their previous analysis and identified a study area bounded by routes to the east and west, which had essentially 100 percent collocation, and identified additional routes within those boundaries.<sup>19</sup> Ultimately, LG&E/KU identified 1,203 feasible routes.<sup>20</sup> LG&E/KU then set out to begin gathering data on

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<sup>15</sup> Case No. 2005-00207, The Application of East Kentucky Power Cooperative, Inc. For a Certificate of Public Convenience and Necessity to Construct a 161 kV Transmission Line in Barren, Warren, Butler, and Ohio Counties, Kentucky (Order of October 31, 2005, p.6).

<sup>16</sup> Case No. 2005-00089, The Application of East Kentucky Power Cooperative, Inc. For a Certificate of Public Convenience and Necessity to Construct a 138 kV Transmission Line in Rowan County, Kentucky (Order of August 19, 2005, p. 9) (“Rowan Case”).

<sup>17</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, p. 7.

<sup>18</sup> *Id.*, pp. 7 - 8.

<sup>19</sup> *Id.*, pp. 8 - 9.

<sup>20</sup> TE, Vol. III, p. 148, lines 7 - 14.



those routes, which included the use of United States Geological Survey topographic quadrangle maps, aerial photography, and Geographic Information Systems information from publicly available resources, as well as discussions with landowners and actual physical reviews of the entire study area through either aerial, driving, or walking surveys.<sup>21</sup>

LG&E/KU next compiled and evaluated detailed cost estimates of each of the 1,203 routes in their study area,<sup>22</sup> as well as data on the percent of collocation for each. The cost estimates were based on historical cost figures as well as recently quoted current material and labor prices.<sup>23</sup> Liberty reviewed the LG&E/KU cost estimates and concluded that they were “better than preliminary planning grade estimates” and “adequate for routing decisions.”<sup>24</sup>

From these cost estimates, LG&E/KU determined the rate impact resulting from the use of routes other than the least-cost route.<sup>25</sup> In their pre-filed direct testimony, LG&E/KU addressed the rate impact per customer when comparing Route Nos. 1 and 2.<sup>26</sup> Then, in data responses LG&E/KU estimated the rate impact per customer per

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<sup>21</sup> Direct Testimony of Brandon Grillon (“Grillon Direct”) in Case Nos. 2005-00467 and 2005-00472, p. 1; TE, Vol. II, p. 39, line 9 to p. 40, line 15; p. 105, line 17 to p. 106, line 9; p. 233, lines 10 - 20. See *also* LG&E/KU Responses to the Data Requests of the Cunningham/Hardin Intervenors.

<sup>22</sup> Grillon Direct in Case Nos. 2005-00467 and 2005-00472, p. 2.

<sup>23</sup> *Id.*

<sup>24</sup> Liberty Report, p. II-2.

<sup>25</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, p. 10.

<sup>26</sup> Wolfram Direct in Case Nos. 2005-00467 and 2005-00472, p. 8.

\$10 million of additional project cost.<sup>27</sup> Under either calculation, LG&E/KU concluded that the rate impact for the incremental difference between any of the routes evaluated could be considered *de minimis* or insignificant.<sup>28</sup>

Last, LG&E/KU conducted an analysis of the 1,203 routes they had within their study area. To do that, LG&E/KU utilized what is known as the analysis and evaluation portion of the Electric Power Research Institute (“EPRI”) methodology. Before LG&E/KU actually applied the EPRI analysis and evaluation tool, however, they determined that the total of 1,203 routes was too many for meaningful analysis and comparison. Consequently, LG&E/KU eliminated those routes that the Fort Knox Military Reservation found unacceptable, and then eliminated those remaining routes for which the estimated cost of construction was 125 percent or more than that of the least-cost route.<sup>29</sup> That process reduced the number of routes for further consideration by about 42 percent, to approximately 700 routes.<sup>30</sup>

LG&E/KU testified that they chose 125 percent as a threshold based upon the Commission’s directive in the Rowan Case that the utility go back and consider a route that was approximately 20 percent more expensive than the route proposed in that case. According to Witness Wolfram, LG&E/KU “knew that 20 percent was a level that the Commission would deem to be worthy of review,” so they “elected 125 percent as a

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<sup>27</sup> LG&E/KU Response to PSC Staff Data Request Nos. 10 and 11.

<sup>28</sup> TE, Vol. III, p. 111, line 1 to p. 114, line 9.

<sup>29</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, pp. 11 - 12. The Commission recognizes that LG&E/KU are obligated to place their transmission facilities in locations on the reservation to which Fort Knox agrees.

<sup>30</sup> *Id.*, p. 12.

number greater than 120 percent but one that generally adhered to [LG&E/KU's] view of the importance of least-cost planning.”<sup>31</sup>

The Commission finds that this process meets the requirement of a comprehensive survey of all potential routes. LG&E/KU developed a study area of approximately 600 square miles, evaluating over 1,200 routes utilizing a range of collocation of less than 50 percent to nearly 100 percent.<sup>32</sup> The Commission's consultant confirmed that “LG&E/KU surveyed a large number of potential routes in its route selection process. LG&E/KU's process for the evaluation and selection of alternative routes was reasonable.”<sup>33</sup>

The Cunningham/Hardin Intervenors contested the survey on several grounds, none of which the Commission finds persuasive. For example, they raised issues about what they termed the “speed” with which LG&E/KU filed their applications in these proceedings in relation to the Commission's final Order in Case No. 2005-00142, arguing that LG&E/KU's evaluation focused on Route No. 1 from the beginning and was not sufficiently comprehensive.<sup>34</sup> As to the timing itself, the Commission recognizes that LG&E/KU had to move expeditiously to file another application so they could be in a position to have the Mill Creek to the Hardin County Substation in place when it is

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<sup>31</sup> TE, Vol. III, p. 127, lines 14 - 20.

<sup>32</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, pp. 6 - 9; TE, Vol. II, p. 270, lines 6 - 14; TE, Vol. III, p. 144, lines 13 - 18.

<sup>33</sup> Liberty Report, p. I-4.

<sup>34</sup> See TE, Vol. I, p. 101, lines 5 - 9; TE, Vol. II, p. 233, lines 2 - 5.

needed for TC2.<sup>35</sup> Witness Johnson testified that LG&E/KU began laying the groundwork for the applications in these proceedings on September 8, 2005, immediately after receiving the Commission's final Order in Case No. 2005-00142.<sup>36</sup> The Commission takes notice that the span between the final Order in the prior case and the applications in these is about the same as the span between the final Order in the first Rowan Case and the application in the second.<sup>37</sup> The Commission sees no basis for believing LG&E/KU could not conduct a comprehensive survey between then and December 22, 2005, and no intervenor offered testimony showing otherwise.

The Cunningham/Hardin Intervenors also pointed to discussions with Fort Knox and the Fish and Wildlife Service as evidence that LG&E/KU had focused on the two requested routes early in the process. The Commission disagrees and finds that those discussions did not foreclose the consideration of other options.

The Commission has considered all of the arguments of the Cunningham/Hardin Intervenors and finds that the other criticisms suggested by them are also without merit. We do, however, address two of those criticisms in more detail.

First, they questioned LG&E/KU's decision not to utilize the full EPRI model.<sup>38</sup> The Commission has approved using that model in other cases, including the Warren

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<sup>35</sup> Johnson Direct in Case No. 2005-00467, pp. 5 - 6; Johnson Direct in Case No. 2005-00472, p. 5; TE, Vol. II, p. 158, line 7 to p. 159, line 12.

<sup>36</sup> TE, Vol. II, p. 33, line 11 to p. 34, line 12.

<sup>37</sup> The final Order in Case No. 2005-00089 was issued on August 19, 2005, and the application in Case No. 2005-00458 was filed on December 8, 2005.

<sup>38</sup> This model, developed by the EPRI in conjunction with Georgia Power Company, is designed to guide the selection of transmission line routes and has been used in previous applications before this Commission, e.g., the Warren Case. The

Case. There, we approved East Kentucky Power Cooperative's ("EKPC") application for a CPCN, stating that the specific portion of the EPRI model used here by LG&E/KU was useful "for conducting a thorough evaluation of [alternative routes] by employing a decision matrix."<sup>39</sup> LG&E/KU testified that they did not use the EPRI macro-corridor identification tool because they believed that doing so would be inconsistent with an effort to identify all electrically feasible alternatives and because the Commission raised concern about the use of the macro-corridor tool in the Warren Case.<sup>40</sup> Moreover, the full EPRI model, which includes the macro-corridor portion, has not been calibrated for use in Kentucky at the present time.

Under these circumstances, the Commission does not fault LG&E/KU for substituting their own alternative route survey analysis for the macro-corridor portion of the EPRI model. Both processes were designed to identify the initial study area within which to route alternatives. Given that LG&E/KU's study area was bounded by alternative routes with 100 percent collocation and covered approximately 600 square miles and over 1,200 potential routes, the Commission finds that the decision not to utilize the macro-corridor tool here was reasonable.<sup>41</sup> The Commission does want to clarify, however, that it supports the use of the full EPRI model, including the macro-

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Commission is aware that the regulated Kentucky utilities and other interested parties are working on making this model more appropriate for use in Kentucky than the current version, which is based on significant Georgia characteristics.

<sup>39</sup> The Warren Case, PSC Order of October 31, 2005, p. 9.

<sup>40</sup> TE, Vol. III, p. 128, line 15 to p. 129, line 9.

<sup>41</sup> Moreover, given that LG&E/KU's concern was that wholesale application of the model would have been too restrictive, it appears the decision not to employ the macro-corridor portion may have resulted in more routes than might otherwise have occurred.

corridor portion, once it has been calibrated for use in Kentucky. The data used in the macro-corridor generation should cover the area for all electronically feasible alternative routes, which in this case would be the 600 square miles that were considered. Utilities should have no hesitation in applying the full model in their route selection process. That said, if any applicant believes wholesale application of the model limits the process such that the survey of potential routes is less than what the utility considers to be comprehensive, the utility should present an additional survey that includes the routes the model excluded. In summary, a utility using the EPRI model should use the full model in future applications, but it should feel free to supplement the model's results if those results are less than comprehensive in their consideration of potential routes.

The Cunningham/Hardin Intervenors also claimed that LG&E/KU improperly restricted the number of routes they considered when they applied their 125 percent cost screen. While the Commission did find that EKPC should have considered a route that cost about 20 percent more than its requested route in the Rowan Case, we did not intend that number to set a precedent or benchmark for future cases. There, EKPC did not demonstrate in its initial application that it had conducted a comprehensive survey of alternative routes, and the Commission's consultant identified the referenced route to demonstrate the existence of potential routes that the applicant had not analyzed.

The Commission believes that a reasonable cost screen will vary from case to case. From a practical standpoint, the utility will necessarily have to limit the number of routes it analyzes in detail, simply to be able to complete the process in a reasonable timeframe and at a reasonable cost. For a short and relatively inexpensive line, no screen may be warranted; as the length and cost of the line increase, the appropriate

point for excluding the more costly routes will likewise vary. Here, in light of the number of routes considered by LG&E/KU and the amount of information gathered about all routes, the Commission finds that the decision in this case to ultimately screen out routes that cost 25 percent more than the least-cost route was reasonable. Based on the record in this case, the Commission finds that LG&E/KU did conduct a comprehensive survey of all potential routes.

Selection of Route. The second requirement in the process of identifying a route is that the utility select a reasonable route from the results of the survey. After reducing the number of routes for further consideration to 700, LG&E/KU applied the EPRI analysis and evaluation tool to score the routes. The resulting scores were compiled in a spreadsheet under four columns: (i) emphasis on the built environment; (ii) emphasis on the natural environment, (iii) emphasis on engineering considerations, and (iv) simple average of the three criteria.<sup>42</sup> LG&E/KU also performed a sensitivity analysis of the EPRI results by changing the baseline weightings of each of the constituent criteria of the EPRI analysis and evaluation tool. Each criterion was changed from the base weighting to a weighting of 50 percent emphasis and 100 percent emphasis to analyze whether the ranking of the routes would change if greater emphasis were placed on any of these criteria.<sup>43</sup>

As a final step, LG&E/KU then applied “expert judgment,” using the background, training and experience of LG&E/KU’s transmission department to make a decision on a

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<sup>42</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, pp. 10 - 11 and Exhibit MSJ-2.

<sup>43</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, pp. 10 - 11.

preferred route.<sup>44</sup> In doing so, LG&E/KU gave consideration to factors such as the length of the routes, the number of property owners on the routes, home relocations on the routes, practicability of collocation, congestion in built areas, proximity to airports, the number of angles required in the route, topography, river crossings, wetlands, wooded areas, and cost of construction.<sup>45</sup> LG&E/KU then made the preliminary determination that both Route No. 1 and Route No. 2 as presented in their applications here were reasonable routes.<sup>46</sup> According to LG&E/KU, that decision was made because those routes are among the lowest cost routes in the area of inquiry, provide some of the most direct routes from the Mill Creek to the Hardin County Substation, utilize collocation for more than half their length, and score well in the EPRI analysis and evaluation tool and the sensitivity studies that were run.<sup>47</sup>

LG&E/KU also conferred with Clay Doherty, their consultant who performed an independent analysis of their route selection process, to determine whether he had seen anything in his review of all of the data that would lead him to conclude that either Route No. 1 or Route No. 2 was not a reasonable route.<sup>48</sup> He tested LG&E/KU's

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<sup>44</sup> *Id.*, pp. 12 - 13; TE, Vol. II, p. 41, line 22 to p. 42, line 4.

<sup>45</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, p. 13; TE, Vol. I, p. 138, line 21 to p. 140, line 7.

<sup>46</sup> Johnson Direct in Case Nos. 2005-00467 and 2005-00472, pp. 13 - 14.

<sup>47</sup> Johnson Direct in Case No. 2005-00467, p. 14; Johnson Direct in Case No. 2005-00472, pp. 13 - 14.

<sup>48</sup> TE, Vol. II, p. 295, lines 1 - 14.



analysis by using a different methodology than that employed by LG&E/KU, and he concluded that the two routes proposed by LG&E/KU are in fact reasonable routes.<sup>49</sup>

The Liberty Report reached the same conclusions. Specifically, Liberty concluded that “LG&E/KU’s process for the evaluation and selection of potential routes was reasonable,” and that Mr. Doherty’s “affirmation that the LG&E/KU routes selected were reasonable is a valid one.”<sup>50</sup>

The Cunningham/Hardin Intervenors argued that LG&E/KU should have selected an alternative route. Primarily, they maintained that LG&E/KU reached an improper balance between cost and collocation. They urged the use of only those routes that have at least 80 percent collocation, “regardless of the higher cost.”<sup>51</sup> As part of that argument, the Cunningham/Hardin Intervenors pointed to routes ACQ, ACU, AUL, ADC, ADS, and ADK as being “more closely responsive” to the final Order in Case No. 2005-00142.<sup>52</sup>

Neither the Commission’s Order in the Warren Case nor its Order in any other transmission CPCN proceeding has set a minimum level of collocation that must be utilized by a utility in siting a transmission line. The burden on each utility coming before us seeking a transmission line CPCN is to establish that it has thoroughly

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<sup>49</sup> Direct Testimony of Clayton Doherty in Case Nos. 2005-00467 and 2005-00472, p. 2.

<sup>50</sup> Liberty Report, p. II-10.

<sup>51</sup> Direct Testimony of Lisa Harrison and Jennifer Hardin (“Hardin Direct”) in Case Nos. 2005-00467 and 2005-00472, pp. 5 - 6.

<sup>52</sup> Direct Testimony of Cathy and Dennis Cunningham in Case Nos. 2005-00467 and 2005-00472, p. 8; Hardin Direct, p. 6.

analyzed alternative routes for the line, including routes that use existing utility corridors or other suitable rights-of-way, and to establish that its route selection was reasonable. In conducting that analysis, the utility should consider and balance a number of relevant factors before making a final route selection. Among those factors are impacts on landowners, reliability considerations, and cost. The Commission has previously recognized the need to “balance all relevant factors. . . , [including] the availability of an alternative route and the magnitude of the increased cost of that alternative route.”<sup>53</sup> The appropriate level of collocation, when balanced against all other relevant factors, including cost, will likely vary in different cases based upon the facts of each case.

Total project cost is an important factor in utility resource planning, even when the rate impact of the cost differences for a particular line may be negligible. While the rate impact of one line may be insignificant, the cumulative nature of the cost of several lines may at some point become problematic. The Commission has long encouraged consideration of least-cost alternatives for meeting projected needs, without explicit consideration of rate impact. Thus, while total project cost should not be the sole factor in transmission route selection, it is nevertheless one of the important factors to consider.

The Cunningham/Hardin Intervenors also questioned LG&E/KU’s use of “expert judgment.” They argued that the EPRI model will generate certain results, which could then be completely overturned by management’s contrary opinions. The Commission does not believe the use of expert judgment, as was used by LG&E/KU here, is improper. The Commission’s consultant cautioned against blind adherence to any

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<sup>53</sup> Rowan Case, Order of August 19, 2005, p. 6.

evaluation process that does not utilize the background, training, and experience of the utility's own experts, noting that such "expert judgment" is very useful in making decisions on siting transmission lines.<sup>54</sup> The Commission recognizes that the EPRI model is a useful tool for the selection of transmission line routes and, once calibrated with Kentucky data, encourages its use in future route selection processes. The Commission, however, does not advocate blind adherence to the EPRI model results and recognizes that the use of utilities' expert judgment is also important in the process.

The Commission finds that LG&E/KU appropriately balanced the relevant factors in rejecting routes ACQ, ACU, AUL, ADC, ADS, and ADK. Although each of those routes achieved more collocation than either of the two routes proposed by LG&E/KU, they also carried additional costs of between \$10.1 million and \$18 million when compared to Route No. 1, and between \$6.8 million and \$14.7 million when compared to Route No. 2.<sup>55</sup> In addition, all of the routes but one are longer than the proposed and alternative routes, being 8.8 to 14.5 miles longer than the preferred route and 6 to 12.6 miles longer than the alternative route.<sup>56</sup> The one route that is shorter than the preferred and alternative routes, AUL, requires the relocation of 155 residences and also is within 300 feet of 676 residences.<sup>57</sup> Three other routes, ACQ, ACU and ADS, require the relocation of 2 residences as compared to no relocations through the use of

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<sup>54</sup> Cross-examination of Witness Cannata, TE, Vol. II, p. 165, lines 4 - 20.

<sup>55</sup> Tables 4.1, 4.3 (revised February 17, 2006), 4.4 and 4.5 (revised February 17, 2006), Exhibit CMD-1.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

the preferred and alternative routes.<sup>58</sup> Indeed, all of the routes identified by the Cunningham/Hardin Intervenors have more residences within 300 feet of the right-of-way.<sup>59</sup> Thus, the Cunningham/Hardin Intervenors have not demonstrated that Route Nos. 1 and 2 are unreasonable when compared to the routes identified in their testimony.

Between the two routes in these applications, the Commission finds that LG&E/KU's decision to recommend Route No. 1 as the preferred route was reasonable. While Route No. 2 would utilize approximately 10 percent more collocation than would Route No. 1, it would also cost \$3.2 million more.<sup>60</sup>

Based on the record in this case, we find that the construction of Route No. 1 will not constitute unnecessary or wasteful duplication of facilities. Because we have also found a need for the Mill Creek to Hardin County Substation transmission line, LG&E/KU's joint application for a CPCN for Route No. 1 will be granted.

#### Movement of the Line

LG&E/KU requested that they be permitted to make unsubstantial modifications to the route of the line after the issuance of an Order approving the proposed route without the need for further Orders from the Commission. Witness Wolfram testified that it has been LG&E/KU's experience that, in constructing transmission facilities, the need arises to make slight adjustments to transmission line routes because of the existence of constraints that were not known at the time the route was finalized, or to

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<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> Johnson Direct in Case No. 2005-00472, p.13; TE, Vol. I, p. 98, lines 7 - 12.

address measures to avoid, minimize, or mitigate potential impacts that may be identified as a result of final environmental or cultural review and consultation processes. He testified that, to promote administrative efficiency, LG&E/KU would like to make such minor modifications without the need for further approval by the Commission.<sup>61</sup>

In the Warren Case, the Commission permitted EKPC to move the centerline of an approved transmission line 500 feet in either direction as long as (1) the move does not shift the line or its right-of-way onto the property of a different landowner and (2) the property owner who is subject to the move agrees in writing to the requested move. The Commission went on to state that any changes greater than this distance, or ones that involve other landowners will require the utility to come back to the Commission with another application.

In these proceedings, LG&E/KU have proposed that they be permitted to make alterations to the route of the line in accordance with the procedure approved in the Warren Case, except that, rather than coming back to the Commission with a new application in the event a landowner refuses consent, they be permitted to file a motion requesting that these proceedings be reopened for the limited purpose of addressing the landowner's refusal to consent to the proposed alteration.<sup>62</sup> No party objected to this proposal, and Liberty concluded that granting the requested relief, if properly and

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<sup>61</sup> Wolfram Direct in Case Nos. 2005-00467 and 2005-00472, p. 10.

<sup>62</sup> *Id.* Counsel for LG&E/KU clarified their position on the procedure for seeking review in their proposed order. Specifically, LG&E/KU explained that they seek leave to file a motion to reopen the record for limited purposes and are not asking that the record be kept open automatically or generally.

strictly controlled, could “enhance the utility-landowner communication process and result in a more harmonious balance of public and infrastructure construction needs.”<sup>63</sup>

Having considered LG&E/KU's proposal, the Commission finds that it is reasonable and should be approved. Therefore, in accord with the Warren Case Order, LG&E/KU may move the approved centerline up to 500 feet in either direction (i.e., within a 1,000-foot corridor) as long as (1) the move does not shift the line or its right-of-way onto the property of a different landowner and (2) the property owner who is subject to the move agrees in writing to the requested move. Changes greater than this distance, or that involve other landowners, will require LG&E/KU to come back to the Commission with another application.

In addition, if a landowner refuses to consent in writing to a move of the line and the move otherwise meets all the conditions stated in this section, then LG&E/KU may move to reopen these proceedings for the limited purpose of presenting the proposed alteration, and the landowner's refusal to consent, to the Commission. LG&E/KU should serve such a motion on all parties of record, including any affected landowner. The Commission will establish a procedure at that time to resolve the issue expeditiously. In making this ruling, the Commission does not render this Order interlocutory in nature, and the normal timelines for seeking rehearing or appeal of this Order must be adhered to by any party seeking further review of any of the matters presented to the Commission in these proceedings. The Commission will also not entertain any motion to reopen these consolidated proceedings to address any matters that were or could have been presented here.

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<sup>63</sup> Liberty Report, p. III-7.

## CONCLUSION

Based on the evidence of record and being otherwise sufficiently advised, the Commission concludes that construction of the 345 kV transmission line as proposed in Case No. 2005-00467 is needed and will not result in wasteful duplication of facilities.

IT IS THEREFORE ORDERED that:

1. LG&E/KU are granted a CPCN to construct and operate the proposed 345 kV transmission line as set forth in their joint application in Case No. 2005-00467.
2. LG&E/KU's joint application in Case No. 2005-00472 is dismissed as moot.
3. LG&E/KU shall file a survey of the final location of the line after any changes are made as authorized by this Order and before construction begins.
4. LG&E/KU may move the Commission to reopen the record in this proceeding for the limited purpose of considering and resolving any dispute between LG&E/KU and any landowner regarding the landowner's refusal to consent to any change in the line proposed by LG&E/KU as authorized by this Order.

5. LG&E/KU shall file "as-built" drawings or maps within 60 days of the completion of the construction authorized by this Order.

Done at Frankfort, Kentucky, this 26<sup>th</sup> day of May, 2006.

By the Commission

ATTEST:

A handwritten signature in black ink, consisting of several overlapping loops and flourishes, positioned above a horizontal line.

Executive Director

Case No. 2005-00467  
Case No. 2005-00472