

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY)	
POWER COOPERATIVE, INC. FOR A)	
CERTIFICATE OF PUBLIC CONVENIENCE)	CASE NO. 2005-00458
AND NECESSITY TO CONSTRUCT A)	
138 KV TRANSMISSION LINE IN)	
ROWAN COUNTY, KENTUCKY)	

O R D E R

On December 8, 2005, East Kentucky Power Cooperative, Inc. ("East Kentucky Power") filed an application for a Certificate of Public Convenience and Necessity ("CPCN") to construct approximately 6.9 miles of 138 kilovolt ("kV") transmission line, of which 4.8 miles will cross the Daniel Boone National Forest ("Boone Forest"), connecting the existing Cranston Substation near Triplett, Kentucky with the existing Rowan County Substation near Morehead, Kentucky. The stated purpose of the line is to alleviate reliability problems in the Goddard-Cranston-Rowan area of Rowan County. East Kentucky Power's application was filed in compliance with the 2004 amendments to KRS 278.020, which require a utility to obtain a CPCN before constructing any electric transmission line of 138 kV or more and of more than 5,280 feet in length.

This application is the second filed by East Kentucky Power for this transmission line. The initial application was filed on April 21, 2005 in Case No. 2005-00089.¹ By

¹ Case No. 2005-00089, 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 dated August 19, 2005, the Commission denied that application. While we found the need for the facility was evident and uncontested, we also found that East Kentucky Power had not demonstrated whether the construction of the new line would result in a duplication of facilities.

On November 10, 2005, East Kentucky Power moved for a deviation from the Commission's regulation requiring a 30-day period between the filing date of a Notice of Intent to File an Application and the filing date of the application itself. The Commission granted the deviation and, on December 8, 2005, East Kentucky Power filed this new application seeking approval of the transmission line in Rowan County, Kentucky. East Kentucky Power's application proposes to utilize the same transmission line routing that had been rejected in the earlier case, but here it claims that it has provided additional evidence that the construction of the line will not result in a duplication of facilities by virtue of a thorough consideration of alternative routes.

The Applicant submitted a Motion for Expedited Schedule to the Commission on December 13, 2005. The Commission denied this motion in part and entered a procedural Order on December 16, 2005 setting, among other deadlines, dates for interventions, the filing of testimony, data requests, and the evidentiary hearing. The December 16, 2005 Order also extended the time for the Commission to process the case from 90 to 120 days, pursuant to KRS 278.020(8). On January 10, 2006, the Commission granted Doug Doerrfeld's request for intervention. The Commission held a local public hearing in Case No. 2005-00089, but no party requested such a hearing in this case. The Commission did hold an evidentiary hearing on February 21, 2006, at which the Commission considered testimony and exhibits from East Kentucky Power,

testimony opposing the application from intervenor Doerrfeld, and a report prepared by Commission consultant Jerry Mendl² of MSB Energy Associates (“MSB”).

DISCUSSION

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 wasteful duplication of facilities.³ As the need for the facilities was previously determined by the Commission in Case No. 2005-00089, the issue of wasteful duplication of facilities is the only matter under consideration in the present case.

For the duplication issue, the Commission stated in Case No. 2005-00207 that the applicant bears the dual burden of showing that “it has conducted a thorough review of all reasonable alternatives and then to show that its choice of the proposed route was reasonable.”⁴ The location of the proposed line partially within the boundaries of the Boone Forest raises unique issues, and the evidentiary hearing in this case focused almost exclusively on discussions of the proposed route and additional alternative routes, as well as the procedures for establishing the preferred route.

The early stages of site selection for this transmission line predate the 2004 amendments to KRS 278.020(2). East Kentucky Power’s initial efforts to obtain

² Assessment of the Completeness of Alternative Routes Considered by East Kentucky Power Cooperative in its Application to Construct the Cranston-Rowan County 138 kV Transmission Line, dated January 13, 2006.

³ *E.g., Kentucky Utilities Company v. Public Service Commission*, 252 S.W. 2d 885 (Ky. 1952).

⁴ Case No. 2005-00207, 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 dated October 31, 2005 at 6).

approval for the siting of this line were at the United States Forest Service (“Forest Service”). East Kentucky Power submitted three preliminary routing options to the Forest Service for its consideration. Option 1 is a “straight-line” option crossing at virtually the shortest distance between the Cranston and Rowan County Substations. Option 2 runs along privately owned land in the North Fork of Triplett Creek Valley along the west side of the project area from Cranston Substation until it intersects the Kentucky Utilities Company Goddard-Rodburn 138 kV line (“KU line”), and from there crosses the Boone Forest by paralleling the KU line until it intersects with the Hilda-Rowan 69 kV line. It then parallels that line through the Boone Forest until making its final approach to the Rowan County Substation. Option 3 crosses the Boone Forest at a narrow point by routing along fingers of privately owned land extending into the Boone Forest.

In conjunction with the evaluation of these options, an interdisciplinary team within the Forest Service developed six additional alternate routes, designated as Alternates A-H.⁵ Alternate A was the Forest Service’s preferred route⁶ and is essentially the proposed route in this case. Alternate B was the same route with no herbicide vegetation control allowed, and Alternate C was the no-action alternative.

Alternate D parallels I-64 on Boone Forest land to the south until meeting the KU line and then parallels the KU line across Boone Forest land to U.S. 60. Alternate E circumnavigates the Boone Forest to the west and south. Alternate F parallels I-64 to the north until meeting the KU line and then parallels the KU line across Boone Forest

⁵ Prefiled Testimony of Mark Brewer at 3. These options are also summarized in the MSB Report at 6-7.

⁶ Prefiled Testimony of Mark Brewer at 3.

land to U.S. 60. Alternate G is very similar to Option 3 presented by East Kentucky Power to the Forest Service initially. Finally, Alternate H circumnavigates the Boone Forest to the east and south.

Three other routes were identified and examined by East Kentucky Power subsequent to the hearing in Case No. 2005-00089. The first, identified as “Post Hearing Parallel” on Brewer Exhibit A, was the route shown on an exhibit presented by Commission Staff at the hearing in Case No. 2005-00089. Upon field examination, East Kentucky Power determined that this route crossed over homes and businesses and through other congested areas. Accordingly, East Kentucky Power developed the “Post Hearing Parallel (Adjusted) Route” that would reduce the issues related to congestion. The third, the “Post Hearing I-64 Route” as shown on Brewer Exhibit A, was similar to Alternate D that was considered by the Forest Service, except the centerline on the “Post Hearing I-64 Route” was brought down from the ridge-tops to share right-of-way with I-64 so as to allow access from I-64 and to eliminate the cutting of additional access roads on Forest Service lands.

According to East Kentucky Power witness Brewer, the Forest Service prefers that structures and access roads be located on ridge-tops to avoid excavation (“benching”) on the sides of the steep slopes that exist.⁷ Mr. Brewer also pointed out that the Forest Service is concerned about the establishment of new access roads required to construct and maintain an electric transmission line.⁸ These concerns narrowed the options available to East Kentucky Power and, after review by East

⁷ Transcript at 83.

⁸ *Id.* at 87.

Kentucky Power and the Forest Service, the route proposed in this application is, as noted in the MSB Report, “a refinement of Option 1, deviating by less than a quarter mile from the ‘straight-line’ route of Option 1 as it approaches the Cranston substation.”⁹

The Commission’s primary concern as stated in its prior Order in Case No. 2005-00089 is that adequate consideration be given to using existing rights-of-way and transmission line easements and corridors. The focus at the hearing in this case was on routes that could parallel the KU line. The Commission notes that there are two different sets of issues involved with paralleling the KU line. First are the routing issues germane to locating a transmission line from the Cranston Substation to the KU line. Second are the physical problems involved with actually sharing right-of-way or paralleling the KU line.

ANALYSIS

There appear to be four possible alternatives for locating a transmission line from the Cranston Substation to the KU line. The first is Option 2 that was submitted by East Kentucky Power to the Forest Service and that was effectively considered and rejected by the Forest Service in the Environmental Assessment when Alternate F was rejected. The second is Alternate D, which was developed, considered, and rejected by the Forest Service in the Environmental Assessment. The third is the Post Hearing (Adjusted) Route developed by East Kentucky Power and developed from the route shown on Commission Staff exhibits at the hearing in Case No. 2005-00089. The fourth is the Post Hearing I-64 Route identified by the intervenor at the hearing in Case No. 2005-00089.

⁹ MSB Report at 5.

One of the main reasons for the rejection of Alternate D by the Forest Service apparently was that a significantly greater number of longer roads would have to be cut to access the transmission structures, compared to Alternate A, which is located in an area where there are existing Forest Service roads that can be used for a great portion of this access.¹⁰ With respect to Alternate F, the Forest Service rejected this route for myriad reasons, including: issues arising from the paralleling of six to eight major gas lines; the effect on Forest Service endangered species; stream crossings; and residential congestion.¹¹

The remaining routes to the KU line from the Cranston Substation are the Post-Hearing Parallel (Adjusted) Route and the Post-Hearing I-64 Route. With regard to the Post-Hearing I-64 Route, the Commission notes that the I-64 right-of-way lies at the base of the steeply sloped hillsides of the Forest Service lands. As a result, the line would have to be constructed on the side of those steep slopes, thus violating one of the Forest Service's main concerns.¹²

The final route from the Cranston Substation to the KU line is the Post-Hearing (Adjusted) Route. East Kentucky Power concluded that this alternative was not as good as the route proposed in this case for a variety of reasons, including that it: is 3 miles longer; requires 1.3 miles more of new right-of-way; reduces right-of-way in the Boone Forest by only .58 mile; could not take advantage of shared right-of-way; would require an additional 100-foot new right-of-way approximately 20 feet from the outside of the

¹⁰ Transcript at 87-90.

¹¹ *Id.* at 28.

¹² *Id.* at 83.

existing KU right-of-way; and would have a significantly larger impact on residences.¹³ Based on the evidence introduced at the hearing, primarily from witness Brewer and the independent findings in the MSB Report, the Commission finds that East Kentucky Power acted reasonably in rejecting these alternatives.

With regard to the issues created by physically locating a transmission line parallel to the KU line, the Commission likewise finds that East Kentucky Power has acted reasonably. Applying the high-wind scenarios of the National Electrical Safety Code, which the Commission has adopted pursuant to 807 KAR 5:041, Section 3, conductor blow-out considerations would require that any line built parallel to the KU line would have to leave a strip of trees approximately 20 feet wide between the two rights-of-way.¹⁴ This requirement would substantially undermine or eliminate any benefit of a shared right-of-way, regardless of which alternative route is taken from the Cranston Substation to the KU line.

The only way to share right-of-way under these circumstances would be to build intermediate structures down the steep slopes of the hillsides, which would violate one of the main concerns of the Forest Service. Furthermore, this type of short-span construction with intermediate structures would require the KU line to be rebuilt.¹⁵ Such a rebuild would require an extended outage of the KU line, which, due to the critical nature of this line, is unacceptable.¹⁶

¹³ Prefiled Testimony of Mark Brewer at 6-7.

¹⁴ Transcript at 57-58.

¹⁵ *Id.* at 91.

¹⁶ *Id.* at 65, 102.

Alternates G, H, and 3, the routes that would run east and south of the Boone Forest, were rejected by East Kentucky Power for numerous reasons, including their potential impacts on streams (Triplett Creek and its North Fork) and the severe impacts on residential areas.¹⁷ Consequently, all of these routes would be significantly more expensive.

MSB evaluated whether East Kentucky Power conducted a comprehensive survey of all possible routes for the Cranston-Rowan County transmission line and concluded that East Kentucky Power had considered a “full spectrum of primary route alternatives. MSB did not identify any primary route alternative that EKPC had not considered.”¹⁸

Based on the foregoing, the Commission finds that East Kentucky Power gave appropriate consideration to each of these routes and that its consideration of all of the alternative line locations was comprehensive. Further, the Commission finds that East Kentucky Power acted reasonably in rejecting each of them.¹⁹

The Commission recognizes that the route approved in this Order is in the immediate vicinity of several major gas transmission lines. Pipeline safety is of major concern to the Commission. The Commission therefore expects East Kentucky Power to work closely with all affected gas transmission companies during the detailed design and construction phase of the project to assure pipeline safety.

¹⁷ MSB Report at 9-10.

¹⁸ *Id.* at 11.

¹⁹ The Commission notes that East Kentucky Power has not requested authority to deviate from the approved route by any distance, so we do not address that issue in this case.

CONCLUSIONS

Based on the evidence of record and being otherwise sufficiently advised, and considering East Kentucky Power's analysis of alternatives to the proposed transmission facilities, the Commission finds that construction of the proposed transmission line will not result in wasteful duplication of facilities.

IT IS THEREFORE ORDERED that:

1. East Kentucky Power is granted a CPCN to construct and operate 6.9 miles of 138 kV transmission line in Rowan County, Kentucky, as set forth in its application.
2. East Kentucky Power 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 7th day of April, 2006.

By the Commission

ATTEST:



Executive Director