

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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| APPLICATION OF KENTUCKY UTILITIES |) | |
| COMPANY FOR A CERTIFICATE OF |) | |
| PUBLIC CONVENIENCE AND NECESSITY |) | CASE NO. |
| FOR THE CONSTRUCTION OF |) | 2022-00066 |
| TRANSMISSION FACILITIES IN HARDIN |) | |
| COUNTY, KENTUCKY |) | |

KENTUCKY UTILITIES COMPANY’S POST-HEARING BRIEF

In September 2021, Governor Beshear, Ford Motor Company, and its partner SK Innovation, described plans to build two electric vehicle battery plants at the Glendale Megasite in Hardin County as:

the single largest economic development project in the history of the Commonwealth . . . celebrating a transformative \$5.8 billion investment that will create 5,000 jobs and places Kentucky at the forefront of the automotive industry’s future.¹

Governor Beshear said further:

This is the single largest investment in the history of our state It will transform our economy, creating a better Kentucky with more opportunities for our families for generations.²

Kentucky Utilities Company (“KU”) filed its Application in this case so that it can provide the electricity needs of those battery plants and for the surrounding area. KU submits this post-hearing brief in support of that Application.

¹ <https://kentucky.gov/Pages/Activity-stream.aspx?n=GovernorBeshear&prId=981> (a copy of the press release was attached to Elizabeth McFarland’s March 31, 2022 Direct Testimony as Exhibit EJM-1).

² *Id.*

As set forth below and as reflected in the record in this case, KU has demonstrated: (1) a “need” for the transmission facilities proposed in this case; and (2) that it has meaningfully considered possible transmission line routes and has identified the optimal routes given the totality of the circumstances, thereby proving the absence of “wasteful duplication.” Having demonstrated those two facts, the Commission must grant KU’s requested Certificate of Public Convenience and Necessity (“CPCN”) under KRS 278.020 and well-established Commission precedent, the most recent of which is a decision the Commission issued just nine days ago.³

I. BACKGROUND AND PROCEDURAL HISTORY

On March 31, 2022, KU filed its Application and supporting documents which included the testimony of Elizabeth J. McFarland and Robert M. Conroy. Ms. McFarland described the need for the proposed transmission facilities to serve Ford Motor Company’s and SK Innovation’s (collectively, “Ford”) planned battery production facilities at the Glendale Megasite in Hardin County, Kentucky as well as expected future load growth in the area.

Ms. McFarland further explained that this transformative project will have considerable electricity needs estimated to be 320 MW,⁴ but that KU does not have existing transmission facilities close enough to the Glendale Megasite to serve those needs absent construction.⁵ Therefore, KU proposed the construction of a transmission project to serve that need consisting of six “sub-projects”: (1) two 345 kV lines (an East line and a West

³ *In the Matter of: Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct a 161 kV Transmission Line in Henderson County, Kentucky*, Case No. 2022-00012, [Order](#) (Ky. PSC June 6, 2022).

⁴ McFarland Direct at 2.

⁵ *Id.*

line) that will connect the existing Brown North – Hardin County 345 kV line to a new substation;⁶ (2) a new 345 kV/138 kV substation called the Glendale South Substation; (3) two 138 kV lines running from the Glendale South Substation to a second new substation; and (4) a 138 kV/24.7 kV substation called the Glendale Industrial Substation.

In compliance with 807 KAR 5:120, Section 2(3), KU provided notice to all affected landowners and some of those landowners requested intervention in this matter. The Commission granted intervention to Grover Berry, the “Brown intervenors,” Wade Family Farm Management, LLC, (“Wade), the “Hagan intervenors” and the “Dobson intervenors.”⁷ Discovery ensued, and the Browns and the Wades filed intervenor testimony on May 12, 2022, which Ms. McFarland rebutted in her May 27, 2022 rebuttal testimony. The Commission conducted a public comment session in Elizabethtown, Kentucky on May 23, 2022, and an evidentiary hearing at the Commission on June 1, 2022.

No intervenor testimony questions the need for any of the six “sub-projects” KU has proposed. In fact, the intervenor testimony only takes issue with the location of two relatively short portions of the 345 kV West line where those portions cross the Wade property and the Brown property. Thus, based on intervenor testimony, the legal question of “need” is undisputed.⁸ As to the location of the 345 kV West line on the Brown property, Ms. McFarland has explained that KU will construct the 345 kV West line in accordance

⁶ KU provided projected general cost data in Ms. McFarland’s Direct Testimony at page 6 and more specific projected cost data in response to PSC 4-4, 4-5, 4-6, and 4-7.

⁷ The Brown intervenors are Frank and Martha Brown. The Hagan intervenors are John and Loretta Hagan and Larry and Kay Hagan. The Dobson intervenors are Stephen Dobson, Raymond Dobson, Deanna Dobson, and Betty Dobson.

⁸ KU acknowledges that, *after* the Wades filed their intervenor testimony, they filed their response to Item 1(a) of the Staff’s Information Request to them in which the Wades stated that “the need for two 345 kV lines has not been demonstrated.” Certainly, KU disagrees with that conclusion and the record proves otherwise.

with the Brown location preference,⁹ so the concerns in the Brown testimony appear to be resolved.¹⁰

At the evidentiary hearing, the Wades demonstrated their continued opposition to the location of the segment of the proposed West 345 kV line that crosses the Wade property. Despite that opposition, KU has demonstrated everything necessary for the issuance of the requested CPCN. At the evidentiary hearing, the Wades criticized certain aspects of the routing study KU has submitted and KU anticipates the Wades will continue that criticism in their post-hearing brief. The Wade criticism is misplaced, as it ignores the irrefutable reality that the line must be built *somewhere* so that KU can meet its obligation to serve customers and meet the electricity needs for the greater good. Moreover, it is clear that KU has conducted a “thorough review of all reasonable alternatives”¹¹ and that KU has “meaningfully considered alternatives (including alternative routes) and made a reasonable choice, given the totality of the circumstances.”¹² Having met those Commission-defined criteria, the CPCN must be approved.

II. ARGUMENT

To obtain a CPCN, KU must demonstrate a need for the facilities proposed and an absence of wasteful duplication.¹³ “Need” requires a “showing of a substantial inadequacy of existing service”¹⁴ and “wasteful duplication” is defined as “an excess of capacity over

⁹ McFarland Rebuttal at 12-14 (subject to the caveats explained in that testimony which include Commission approval of KU requested 500-foot centerline deviation for landowner preference).

¹⁰ To accommodate the Brown location preference (and other landowner preferences that may arise) and to solve any unforeseen constructability issues, KU hereby reiterates its request to make minor deviations of 500 feet on either side of proposed transmission centerlines without having to return to the Commission for approval. (Application at 6; McFarland Direct at 9).

¹¹ Case No. 2022-00012, Order at 8 (Ky. PSC June 6, 2022).

¹² *Id.* at 13-14.

¹³ *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 252 S.W.2d 885 (Ky. 1952).

¹⁴ *Id.* at 890.

need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”¹⁵ To demonstrate that a proposed facility does not result in wasteful duplication, the Commission has held that a thorough review of all reasonable alternatives has been performed.¹⁶ “Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.”¹⁷

A. KU HAS DEMONSTRATED A FUNDAMENTAL NEED FOR THE PROPOSED TRANSMISSION FACILITIES.

KU has demonstrated that its plan to reroute the existing Brown North – Hardin County 345 kV line by constructing an East line and a West line is needed.¹⁸ First, KU demonstrated that there is no existing transmission infrastructure in close proximity to the Glendale Megasite with the available capacity to transmit the required amount of power to the Ford facilities.¹⁹ Then KU demonstrated that KU’s Brown North – Hardin County 345 kV line is the appropriate line to tap because it is the closest line to the Glendale Megasite capable of providing the necessary power.²⁰ Any other tapping option would have been more expensive, less reliable, or both.²¹

KU has also demonstrated that prudent transmission planning and reliability concerns require a load of this size to be served by two sources as a networked solution

¹⁵ *Id.*

¹⁶ Case No. 2022-00012, Order at 8 (Ky. PC June 6, 2022).

¹⁷ *Id.* at 8-9.

¹⁸ See KU’s response to PSC 3-6 describing the need for two lines – an East line and a West line – into the Glendale South Substation. PSC 3-6 also includes a map showing the East line, the West line, and the segment of the existing Brown North – Hardin County line that will be removed because it will become unnecessary.

¹⁹ McFarland Direct at 2.

²⁰ *Id.* at 2, 5; PSC 4-3.

²¹ *Id.*

rather than via a single radial feed.²² Specifically, in response to PSC 2-(1)(a), KU provided the following detailed description of why dual lines are needed:

For expected load the size of the Glendale South Substation, which includes the Ford battery production facilities and future load growth in the area, prudent and reliable transmission planning require more than one source to allow the load to be served in the event of maintenance or emergency outages of one of the lines. A transmission line configuration consisting of two sources into Glendale South Substation greatly reduces the probability of a total Glendale South Substation outage which would leave ALL customers fed from this substation without power.²³

After the Wades filed their intervenor testimony in which they did not question the need for dual 345 kV lines, they filed a data response in which they stated, “the need for two 345 kV lines has not been demonstrated.”²⁴ But they have provided no testimony or analysis that actually challenges KU’s proof that two lines are necessary, much less proves that two lines are not necessary. Indeed, the Wades admitted they have not undertaken any independent analysis of what standard utility practice is to address the need presented in this case.²⁵

B. KU HAS DEMONSTRATED THE ABSENCE OF WASTEFUL DUPLICATION AS PART OF ITS DEMONSTRATION OF NEED.

²² PSC 2-1(a); Wade 2-1; PSC 4-3(c); Hearing Video Testimony (“HVT”) 14:10:00.

²³ PSC 2-1(a) further states: “With only one transmission source into the substation, any line fault or failure, or any planned maintenance outage would leave the substation without a backup source and thus no power. To achieve this two-source configuration, the existing Brown North – Hardin County 345kV line will be segmented near the Hardin County Substation (West tap point) and rerouted into and out of the new Glendale South Substation, tying back into the 345kV line at the East tap point (a total of approximately 9 miles of new 345 kV line). The existing 2.7 mile segment of line between the two new tap points will be retired and removed. This will create one 345 kV source into the Glendale South Substation coming from the Hardin County Substation (i.e., the Glendale South – Hardin County 345 kV line), and a second 345 kV source from the Brown North Substation (i.e., the Glendale South – Brown North 345 kV line). Both sources will reliably serve the load with the loss of the other, i.e., no single line event will interrupt the load. Each of the two sources will be able to serve the entire load without overloading any other facilities.”

²⁴ Wade response to PSC 1-1(a) issued to the Wades.

²⁵ Wade response to PSC 1-1(b) issued to the Wades.

Having demonstrated a fundamental need for additional transmission facilities due to a lack of existing transmission infrastructure to serve the area, KU must also demonstrate that its proposed facilities do not result in wasteful duplication. On this point, the Commission recently held:

To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed. The fundamental principle of reasonable, least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.²⁶

In discussing the concept of lack of wasteful duplication when intervenors have challenged a proposed transmission route, the Commission also recently held:

The intervenors in this proceeding appear to be concerned with BREC's proposed route of the transmission line. The Commission's consideration of proposed routes of transmission lines is limited to its review of the utility's performance of analyses indicating the lack of wasteful duplication. In conducting this review, the Commission must determine whether the proposed route is reasonable, given the totality of the circumstances, including, but not limited to, cost. For example, when presented with a proposed route that is longer and more costly than an alternative, but the alternative would require the utility to purchase a number of residences, the Commission in consideration of the risk of timely constructability, may conclude that the proposed route was the more reasonable choice despite the greater cost. In such a hypothetical scenario, the Commission may find that there was no wasteful duplication of plant, equipment, or facilities even though the proposed route was merely more costly than an identified alternative.²⁷

²⁶ Case No. 2022-00012, Order at 8-9 (Ky. PSC June 6, 2022).

²⁷ *Id.* at 12-13.

It cannot be genuinely disputed that KU has performed a “thorough review of all reasonable alternatives” via the Team Spatial Siting Study (“Siting Study”) that KU has submitted.²⁸ The Siting Study speaks for itself and reflects the robust and comprehensive nature of the methodologies used to identify the optimal route for the West and East 345 kV lines. It describes the methodology used and how it reached the conclusion that the proposed “Route A” is the optimal route for the West 345 kV line.

Team Spatial’s methodology is summarized at page 7 of the Siting Study.²⁹ Team Spatial’s model uses the Electric Power Research Institute’s – Georgia Transmission Corporation (“EPRI-GTC”) Siting Methodology and the Kentucky Siting Model. The model uses a “funnel” approach³⁰ whereby macro-corridors are first identified. Then alternate corridors are identified, followed by possible routes, and then, by using the Expert Judgment Model, a preferred route is identified.

The siting methodology considers the “Built Criteria” which means a consideration of where people live, work, and play by analyzing building density, building proximity, proposed development, spannable lakes and ponds, land use, and proximity to eligible historical and archaeological sites.³¹ It considers the “Natural Criteria” which means a consideration of rivers, streams, 100-year floodplain, land cover, and wildlife habitat.³² It also considers the “Engineering Criteria,” which includes an assessment of existing linear infrastructure (roads, railroads, and existing transmission lines), slope, and sinkholes.³³ By using Built Criteria, Natural Criteria, and Engineering Criteria, Team Spatial completed a

²⁸ The Team Spatial Siting Study is attached as Exhibit 2 to KU’s March 31, 2022 Application.

²⁹ The methodology is also explained in KU’s response to Brown 1-10.

³⁰ Siting Study at 7.

³¹ *Id.* at 11-18.

³² *Id.* at 19-25.

³³ *Id.* at 26-32.

robust and thorough assessment of all possible route alternatives for the 345 kV lines and identified the best available routes for those lines upon which KU made its decision.

This is the same basic methodology Team Spatial used in Case No. 2019-00417 in which the Commission approved a Big Rivers Electric Corporation (“BREC”) transmission line in reliance on the Team Spatial study in that case.³⁴ It is also the same basic methodology Team Spatial used in Case No. 2022-00012 in which the Commission approved a different BREC transmission line just nine days ago.³⁵ With respect to Team Spatial’s basic methodology in that case, the Commission stated:

In an effort to explore alternate routes for the proposed transmission line and determine the preferred route, BREC hired Team Spatial to conduct a siting study to consider alternate routes for the proposed transmission line. The study selected a route based on the application of a methodology previously used by a utility where the Commission approved a CPCN. Based upon the studies of alternatives and the alternate routes, as well as the associated supporting documentation, the Commission finds that there is no wasteful duplication of plant, equipment, or facilities involved with the proposed projects.³⁶

Thus, in accordance with the same methodology used in the quoted BREC case, in this case, Team Spatial identified two final routes (Route A and Route D) for the western 345 kV line. Then Team Spatial applied the Expert Judgment Model to identify the preferred route which is Route A.

C. THE WADE INTERVENOR TESTIMONY DOES NOTHING TO ESTABLISH THAT KU FAILED TO MEANINGFULLY CONSIDER ALTERNATE ROUTES.

³⁴ *In the Matter of: Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct and Acquire a 345 kV Transmission Line in Meade County, Kentucky*, Case No. 2019-00417, [Order](#) at 6 (Ky. PSC May 1, 2020).

³⁵ Case No. 2022-00012, *Order* (Ky. PSC June 6, 2022).

³⁶ *Id.* at 15.

In his intervenor testimony, Wade witness Marty Marchaterre criticizes the Siting Study and contends that Route D should have been chosen over Route A for the West 345 kV route. He is wrong. Although Route D was considered, its centerline is within 300 feet of 14 residences.³⁷ Route A's centerline is within 300 feet of only 7 residences.³⁸ Under the Expert Judgment Model, Community Issues (such as proximity to residences) were heavily considered in deciding (a 30% weight) between Routes A and D for an obvious reason; proximity to residences is and should be highly significant. Route A has half the number of residences in close proximity to the centerline compared to Route D. That fact also means Route D is more susceptible to construction delay. Route D would have also likely required the actual purchase of two residences because of its proximity to those two residences.³⁹ Although Route A is slightly more expensive, Route A crosses more farmland, which makes it more accessible than Route D, which crosses a more congested area. Thus, for all these reasons, the Siting Study appropriately identified Route A as the preferred route.⁴⁰

Mr. Marchaterre's criticism of the Siting Study should also be disregarded due to his lack of experience in siting electric transmission lines, especially when compared to the experience Team Spatial has. Mr. Jesse Glasgow of Team Spatial is a co-preparer of the Siting Study in this case and of the Siting Studies submitted in Case Nos. 2022-00012 and 2019-00417 (which also used the same basic methodology for identifying an optimal route the Commission approved). Mr. Glasgow was a team member on the very team that

³⁷ Siting Study at 53.

³⁸ *Id.*

³⁹ KU Response to Staff Post-Hearing Data Request Nos. 6 and 7 and Wade Post-Hearing Data Request Nos. 1 and 2.

⁴⁰ Siting Study at 60-61.

developed the 2006 EPRI-GTC methodology.⁴¹ He was also the Project Manager and principal investigator for the team that developed the 2007 Kentucky Transmission Line Siting Methodology.⁴² Mr. Marchaterre was not on either of those teams and had no involvement in the development of those methodologies.⁴³ Moreover, Mr. Marchaterre admitted the following at the hearing: (1) of the 128 “project experiences” identified in his resume, only three related to overhead electric transmission projects; (2) those three “project experiences” were all for a single Ameren transmission line that is not in Kentucky; (3) his work on those three projects was limited to environmental planning support⁴⁴; and (4) he has never performed an electric transmission line siting study using the EPRI-GTC methodology or the Kentucky Line Siting Methodology.⁴⁵

Mr. Marchaterre’s intervenor testimony raised numerous specific criticisms of the Siting Study. Those criticisms include criticism of the Study Area itself, an alleged improper departure from the Kentucky Siting Model on which Team Spatial relied, complaints about the effects of avoiding the Wade pivot irrigation system, and an alleged lack of thoroughness of factors that should have been considered. Ms. McFarland’s rebuttal testimony addresses and refutes each of those criticisms and further demonstrates that a “thorough review of all reasonable alternatives has been performed” as required by Commission precedent.

⁴¹ See page 4-1 of the 2006 EPRI-GTC report that has been cited in this case and that can be reviewed at <https://www.epri.com/research/products/00000000001013080>.

⁴² See Wade Family Hearing Exhibit No. 2 (which is the Kentucky Transmission Line Siting Methodology), page 1-1.

⁴³ HVT 15:03:30.

⁴⁴ HVT 15:05:00; see also Mr. Marchaterre’s resume, generally, and page 15 specifically.

⁴⁵ HVT 15:07:25.

Mr. Marchaterre's contention⁴⁶ that the Study Area is too small is wrong and Ms. McFarland explained why he is wrong in her rebuttal testimony.⁴⁷ The identification of the Study Area is based on simple geographic proximity. The closest KU 345 kV line to the Glendale Megasite is the Brown North – Hardin County line. Any other 345 kV line, such as the Daviess County – Hardin County line, is further away and would thus be more expensive. Therefore, the Study Area was defined as the entire area between the Brown North – Hardin County line and the Glendale Megasite that could reasonably accommodate the two 345 kV lines that are proposed without expensive lateral moves east and west that would produce cost-prohibitive results.

Those lateral moves would require tapping the Brown North – Hardin County line further to the east and Daviess County – Hardin County line further to the west. Because of the due easterly direction and due westerly direction of the Brown North – Hardin County line and Daviess County – Hardin County line, respectively, the incremental distance of taps further east and west would result in significantly longer diagonal distances to get south to the Glendale Megasite. This would mean greater cost, more affected land parcels, and ultimately a greater impact. Thus, the existing Study Area is appropriate, and with that sensibly defined Study Area, Team Spatial completed its process of identifying corridors, alternate corridors, alternate routes, and then the preferred routes.

Mr. Marchaterre's contention⁴⁸ that Team Spatial improperly “departed” from the Kentucky Siting Model is wrong and Ms. McFarland explained why in her rebuttal testimony.⁴⁹ Ms. McFarland explained that there was not a “departure” at all. The

⁴⁶ Marchaterre Direct at 2.

⁴⁷ McFarland Rebuttal at 5-6.

⁴⁸ Marchaterre Direct at 3.

⁴⁹ McFarland Rebuttal at 6-7.

Kentucky Siting Model uses “layers” that are given percentage weights in assessing alternate corridors. Layers are items such as: sinkholes and slope in the Engineering Environment; floodplain and wildlife habitat in the Natural Environment; and building density and proximity to eligible historic and archeological sites in the Built Environment.⁵⁰ The existing layers for a study area must add up to 100%. Therefore, if a layer does not exist in a study area, it is not considered, but the remaining layers that are present must be reweighted so the total is 100%. For example, there were no public lands in the Study Area. Thus, that layer of the Natural Environment was not assigned a weight and other layers in the Natural Environment were adjusted upward on a prorated basis.

The Wade cross-examination of Ms. McFarland at the June 1, 2022 evidentiary hearing implied that KU or Team Spatial somehow manipulated the siting methodology to reach a predetermined result favoring Route A. KU is in complete disagreement with that. There is nothing manipulative, results-oriented, or inappropriate about accounting for absent layers. Indeed, it should and must occur for the model to work. Simply stated, it would make no sense for the model to assign weight to a layer that does not exist. The results would be inappropriately skewed.

Likewise, Team Spatial added a layer for sinkholes so that the presence or absence of sinkholes in a corridor could be factored into the process. The Siting Study provides complete transparency on this point by identifying the “sinkholes” as a layer and including the associated weighting percentage.⁵¹ The relevant area is known to have Karst features, so it is appropriate to account for that in the modeling. Indeed, Mr. Marchaterre and Mr.

⁵⁰ Siting Study at 8 (the lines shaded in green with percentage weights are layers used in developing the alternate corridors).

⁵¹*Id.*

Wade stress the importance of accounting for sinkholes in their testimonies.⁵² Therefore, criticism of KU and Team Spatial for allegedly “departing” from the Kentucky Siting Model by adding a layer for sinkholes is misplaced.

At the evidentiary hearing, discussion occurred about the scoring system used in the Expert Judgment Model phase on the Siting Study.⁵³ The Wade implication is that by using either a “1” or “2” in scoring community issues, schedule delay risk, reliability, natural environment considerations, and construction/maintenance accessibility while using a “1.1” for cost is somehow flawed and skewed the results. That implication is wrong. KU has explained that a binary “1” or “2” should be used when scoring *qualitative* criteria as between two routes, but that a precise score reflecting relative values should be used on the cost criteria which is *quantifiable*.⁵⁴

Mr. Marchaterre’s contention that Team Spatial failed to account for the presence of cemeteries⁵⁵ in the Study Area is also wrong. Ms. McFarland explained in rebuttal that it is critical to consider the presence of cemeteries, and Team Spatial did so. In fact, cemeteries and church parcels are “Areas of Least Preference” in the Built Environment.⁵⁶ This means they are to be avoided. While it is true that “Cemetery Parcels” is grayed out on page 8 of the Siting Study, that was only because the cemeteries in the Study Area are *church* cemeteries and were already included as Church Parcels, which is also an Area of Least Preference. They were all modeled as an Area of Least Preference and thus

⁵² Marchaterre Direct at 14; Thomas Wade Direct at 7.

⁵³ Siting Study at 60-61.

⁵⁴ See KU’s response to Item No. 9 of the Commission’s Post-Hearing Data Requests.

⁵⁵ Marchaterre Direct at 9.

⁵⁶ Siting Study at 8.

avoided.⁵⁷ Additionally, at the hearing, Mr. Marchaterre admitted that one of the cemeteries he said was in the Study Area (the Monin Family Farm Cemetery), is not, in fact, in the Study Area.⁵⁸

The Siting Study intentionally considers the presence of the Wade pivot irrigation system and avoids it. Mr. Marchaterre recognizes that fact and seems to agree with it, but he then states “in [avoiding the irrigation system], they have created other issues related to the planned clear-cutting of a forest along the creek.”⁵⁹ He, along with Mr. Wade in his intervenor testimony, then shares information about Civil War history⁶⁰ and what might be in that forest in the way of “earthworks,” which is unproven and speculative. They also discuss the history of the Wade Family Farm and Maplehurst, which is a residence on the farm.

Ms. McFarland explained in her rebuttal⁶¹ that, at this section of the route, it could either interfere with the pivot irrigation system or it could enter the nearby forest. Entering the forest is a much better option, but neither is acceptable to the Wades. This ignores the reality that the line must be built *somewhere* so that KU can meet its obligation to serve customers and meet the electricity needs for the greater good. KU engaged Team Spatial so that the *least* impactful route could be identified and that is exactly what Team Spatial did. Obviously, a route that has no impact does not exist.

In her rebuttal, Ms. McFarland further addressed the remainder of the criticism set forth in Mr. Marchaterre’s or Mr. Wade’s intervenor testimony. Those criticisms were:

⁵⁷ Siting Study at 10, Figure 4, showing Places of Worship as Areas of Least Preference.

⁵⁸ HVT 14:58:12.

⁵⁹ Marchaterre Direct at 7.

⁶⁰ KU does not agree with the conclusion that, because John Hunt Morgan was present in the general vicinity of Elizabethtown in December 1862, this transmission project should be halted for an extensive examination of nearby woods.

⁶¹ McFarland Rebuttal at 9.

(1) the Siting Study overprotects for snuffbox mussels because it modeled for all streams which includes intermittent streams that are not a suitable habitat for snuffbox mussels; (2) the Siting Study does not fully account for conservation areas; (3) the Siting Study does not use complete data for historic resources (including consideration of Maplehurst's inclusion on the National Register of Historic Places) and archeological sites; (4) the Siting Study does not use current roadway information; (5) KU is inconsistent on how the possible presence of underground storage tanks will be handled; and (6) a lack of clarity as to whether Team Spatial contacted Hardin County planning and development officials for input data.

Ms. McFarland explained that all of these criticisms are misplaced, and they ignore the basic fact that KU used a reliable, comprehensive, and PSC-recognized model to determine the optimal routes for the 345 kV lines.⁶² No route will be beloved by affected property owners, but the best KU can do is to propose a reasonable route that is as least impactful as possible which it has done.

As for the snuffbox mussel criticism, if there is an overprotection for snuffbox mussels based on including all streams in the Siting Study, it would be slight and immaterial.⁶³ On the issue of whether Team Spatial appropriately modeled conservation areas, it did so in conformance with the Kentucky Siting Methodology.⁶⁴

⁶² *Id.* at 10.

⁶³ *Id.*

⁶⁴ *Id.* Team Spatial's conservation research included: U.S. National Park Service, Kentucky State Parks, Kentucky State Park Resorts, Kentucky Department of Fish and Wildlife Resources, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Refuge System, U.S. Forest Service Wilderness Areas, U.S. Forest Service, The Nature Conservancy, U.S. Army Corps of Engineers, Kentucky Nature Preserves Commission, Kentucky State Forests, University Lands, University Forests, Heritage Land Conservation Fund, and the National Resource Conservation Service. See the Kentucky Transmission Line Siting Methodology at 2-10 (<https://www.epri.com/research/products/1016198>).

The Siting Study uses the best available data for historic resources and archeological sites by using known eligible and listed data. Mr. Marchaterre agrees that Team Spatial used that data, but claims Team Spatial did not go far enough because of the alleged *possibility* of other historic resources or archeological sites in the area. KU knows of no historic resources or archeological sites that were not considered and Mr. Marchaterre, who clearly has extensive experience in the environmental assessment area, did not identify any in his intervenor testimony.⁶⁵

On the issue of Maplehurst, the Siting Study considered Maplehurst and its inclusion in the National Register of Historic Places and avoided it.⁶⁶ The Wade testimony claims that the boundary of Maplehurst's inclusion in the National Register of Historic Places could be expanded which could affect line location. This is conjecture and not something that can realistically be modeled in transmission line siting as the modeling process would never conclude.

On the issue of using current roadway data, Ms. McFarland explained⁶⁷ that Team Spatial used the most current and *enacted* highway plan from the Kentucky Transportation Cabinet, which is dated May 2020.⁶⁸ Contrary to the suggestion in the Wade testimony, it would be imprudent to rely on any other plan that has not been enacted yet.⁶⁹ KU has been consistent on how it will handle the presence of underground tanks. Team Spatial completed a desktop review, and KU has said that if KU identifies a tank in field work that

⁶⁵ McFarland Rebuttal at 10.

⁶⁶ *Id.*; Siting Study at 10 (Figure 4).

⁶⁷ McFarland Rebuttal at 11.

⁶⁸ A link to that plan is <https://transportation.ky.gov/Program-Management/Highway-Plan/2020HighwayPlanAll.pdf>.

⁶⁹ KU has reviewed the 2022 recommended plan and sees nothing in that plan that would affect its proposal in this case (McFarland Rebuttal at 11).

presents a constructability issue, KU will be able to address it using the 500-foot centerline deviation authority it has requested in this case.⁷⁰ Finally, Ms. McFarland testified that Team Spatial solicited and received development information from the Hardin County Planning and Development Commission and factored that information into its Siting Study.⁷¹

Although the Wade intervenor testimony includes a long list of criticisms of the route siting process, KU has shown them to be misplaced. Without question, KU has demonstrated that it has performed a meaningful analysis of possible routes in a way that meets the requirements for issuance of the requested CPCN.

D. KU's RESPONSES TO POST-HEARING DISCOVERY PROVIDE FURTHER EVIDENCE THAT THE REQUESTED CPCN SHOULD BE GRANTED.

KU responded to the post-hearing data requests on June 10, 2022. Several of those responses amplify the fact that KU has demonstrated that a CPCN should be granted.

First, there were questions⁷² about the two residences that would have to be purchased (and presumably demolished) to construct Route D as opposed to the optimal Route A. The Siting Study explained that Route D is unfavorable because “it crosses over two parcels that have residences that would need to be bought for the transmission line to be built due to the proximity of the residences to the proposed route.”⁷³ KU provided a map that shows that even though those two residential structures may not technically be in the proposed right-of-way, their yards are, and the right-of-way would end a mere few feet

⁷⁰ McFarland Rebuttal at 11.

⁷¹ *Id.*

⁷² See Items 1 and 2 of the Wade Post-Hearing Data Requests and Items 6 and 7 of the Commission's Post-Hearing Data Requests.

⁷³ Siting Study at 60-61.

short of the residences.⁷⁴ From a practical standpoint, based on that proximity, KU believes those residences would have to be purchased.⁷⁵

Second, KU explained the problems associated with a three-terminal line. Given those problems and the related reliability concerns, prudent transmission planning requires the construction of KU's proposal in this case rather than a plan that includes using the Daviess County – Hardin County line which would necessarily result in an unfavorable three-terminal line which KU and LG&E seek to avoid.⁷⁶

Finally, as set forth above, KU has explained the appropriateness of the scoring method used in the Expert Judgment Model phase of the Siting Study (p. 61). A binary “1” or “2” should be used when scoring *qualitative* criteria (community issues, schedule delay risk, reliability, natural environment considerations, and construction/maintenance accessibility) as between two routes, but that a precise score reflecting relative values should be used for the cost criteria which is *quantifiable*.⁷⁷

III. CONCLUSION

KU has demonstrated: (1) a “need” for the transmission facilities proposed in this case; and (2) that it has meaningfully considered possible transmission line routes and has identified the optimal route given the totality of the circumstances, thereby proving the absence of “wasteful duplication.” Having demonstrated those two facts, the Commission must grant KU's requested Certificate of Public Convenience and Necessity (“CPCN”) pursuant to KRS 278.020 and consistent with well-established Commission precedent.

⁷⁴ KU's response to Wade Post-Hearing Data Request No. 1.

⁷⁵ KU's response to Commission Post-Hearing Data Request Nos. 6 and 7.

⁷⁶ KU's response to Commission Post-Hearing Data Request No. 4.

⁷⁷ KU's response to Commission Post-Hearing Data Request No. 9.

Dated: June 15, 2022

Respectfully submitted,

By:  _____

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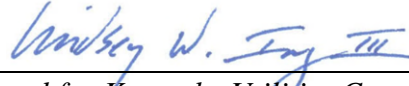
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CERTIFICATE OF COMPLIANCE

In accordance with the Commission's Order of July 22, 2021 in Case No. 2020-00085 (Electronic Emergency Docket Related to the Novel Coronavirus COVID-19), this is to certify that the electronic filing has been transmitted to the Commission on June 15, 2022; and that there are currently no parties in this proceeding that the Commission has excused from participation by electronic means.



Counsel for Kentucky Utilities Company