

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

**RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
FRANK D. BROWN AND MARTHA V. BROWN'S
INITIAL REQUEST FOR INFORMATION
DATED APRIL 14, 2022**

FILED: APRIL 21, 2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Elizabeth J. McFarland**, being duly sworn, deposes and says that she is Vice President, Transmission for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge, and belief.



Elizabeth J. McFarland

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 20th day of April 2022.



Notary Public

Notary Public ID No. 603967

My Commission Expires:

July 11, 2022

KENTUCKY UTILITIES COMPANY

**Response to Frank D. Brown and Martha V. Brown's
Initial Request for Information
Dated April 14, 2022**

Case No. 2022-00066

Question No. 1

Responding Witness: Elizabeth J. McFarland

- Q-1. Please confirm where any and all structures will be located on the Brown Parcels and explain in detail each type of structure that will be located on the Brown Parcels.
- A-1. In response to PSC 1-1, KU provided 33 pages of detailed maps of the proposed transmission lines and the proposed locations for support structures for those lines. Those pages are labeled "x of 33." See pages 10, 11, 12, 21, and 22 of 33 for the maps showing the Brown Parcels.

The support structures on those parcels will be 345 kV Steel H-Frame and 345 kV Lattice Steel Tower 3CS structures. See Exhibits 9 and 14 to KU's Application in this matter for a description of the Steel H-Frame structures and Exhibits 7 and 11 for a description of the Lattice Steel Tower 3CS structures.

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Question No. 2

Responding Witness: Elizabeth J. McFarland

- Q-2. Please explain whether KU has planned any additional future transmission projects (including, but not limited to, the rebuild or construction of any transmission line or substation) in or around the Glendale area. If yes, please describe any such future project in as much detail possible at this time.
- A-2. The only planned transmission work in or around Glendale is associated with the new battery plants. KU does not have any additional future transmission projects planned at the present time.

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Question No. 3

Responding Witness: Elizabeth J. McFarland

- Q-3. Please explain whether the proposed Glendale West 345kV transmission line could be sited above, or parallel to, the two existing sewer easements across and through the Brown Parcels, of record at Book 1385, Page 1343, and Book 1385, Page 1346, in the Office of the Hardin County Clerk.
- A-3. The Team Spatial Siting Study evaluated the sewer easements as part of its corridor analysis. The deep foundations required for the electric line structures restrict where the Company can place structures in the right-of-way due to the presence of underground facilities.

KU has requested authority to move the location of the proposed lines up to 500 feet on either side of the centerline to account for property owner preferences or unexpected conditions encountered during surveying or construction provided that no new property owners are affected (see Paragraph 10 of KU's Application and Ms. McFarland's testimony, page 9). KU has made that request so that it can make minor deviations from the centerline by up to 500 feet either way without having to return to the Commission for a subsequent approval. It will allow an efficient process by which KU can account for property owner preferences where possible and manage unforeseen site conditions after on-site surveys have been performed. KU will work with all affected property owners, including Frank Brown and Martha Brown, to accommodate their preferences if possible and feasible given the numerous considerations made in locating a transmission line.

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Question No. 4

Responding Witness: Elizabeth J. McFarland

- Q-4. Please explain whether the requested 200-foot right-of-way is necessary, or if some narrower right-of-way could be utilized. If KU's position is that the requested 200-foot right-of-way is necessary, please explain in detail why it believes that to be the case, and why a narrower right-of-way would not suffice.
- A-4. The 200 foot wide right-of-way is necessary for the safe and reliable operation of the 345 kV line. This is based on clearances set out by the National Electric Safety Code "NESC" and evaluated for the movement of the conductors through the conductor envelope under various load and weather conditions.

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Question No. 5

Responding Witness: Elizabeth J. McFarland

- Q-5. Please explain whether the requested 1,000 foot-wide corridor is necessary, or if some narrower corridor could be utilized. If KU believes that a 1,000 foot-wide corridor is necessary, please explain why, considering that the topography in and around Glendale, KY is relatively flat and clear of trees.
- A-5. When this question refers to “the requested 1,000 foot-wide corridor,” KU interprets that to mean the request KU has made in this case for authority to move the location of the proposed lines up to 500 feet on either side of the centerline to account for property owner preferences or unexpected conditions encountered during surveying or construction provided that no new property owners are affected (see Paragraph 10 of KU’s Application and Ms. McFarland’s testimony, page 9). KU has made that request so that it can make minor deviations from the centerline by up to 500 feet either way without having to return to the Commission for a subsequent approval. It will allow an efficient process by which KU can account for property owner preferences where possible and manage unforeseen site conditions after on-site surveys have been performed.

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Question No. 6

Responding Witness: Elizabeth J. McFarland

- Q-6. Please explain whether the proposed Glendale West 345kV line could run parallel to the proposed Glendale East 345kV line for its entirety. If no, please explain in detail why not.
- A-6. It is assumed that the question is asking whether the two 345 kV lines could be located on different transmission structures within the same right-of-way or on the same transmission structures also within the same right-of-way (i.e., double circuit). Both examples in the question can be constructed; however, these designs are not nearly as reliable as rerouting the existing Brown North – Hardin County line into and out of the Glendale South Substation on separate right-of-ways (See the response to PSC 2-1). Construction of the two lines in close proximity to each other is far more susceptible to a simultaneous interruption of each line from a single event (e.g., a weather event, fallen tree, or a man-made event such as a car or plane accident). Additionally, a significantly wider easement would be required for lines running in parallel.

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Question No. 7

Responding Witness: Elizabeth J. McFarland

- Q-7. Please explain whether any other locations for the proposed 345kV Glendale Industrial Substation were considered. If yes, please give the locations of the alternatives considered and why the alternatives were not selected.
- A-7. As Ms. McFarland described in her testimony at page 3, the new 345 kV lines will terminate at the Glendale South Substation which will be a 345 kV / 138 kV substation. Exiting that substation, two 138 kV lines will route to a new substation called the Glendale Industrial Substation which will be a 138 kV / 24.7 kV substation. The Glendale Industrial Substation is located on the southeast portion of the Glendale Megasite.

Assuming the question is related to the Glendale South Substation (345 kV / 138 kV), the location of that site was coordinated with the industrial site development, interference with existing wetlands, waterways, known archeological features, and interconnection to available utility transmission line routes. Any alternatives proposed were immediately adjacent to the existing locations and only minor adjustments in final location were made to accommodate final design considerations.

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Question No. 8

Responding Witness: Elizabeth J. McFarland

- Q-8. Please explain whether KU considered an alternative path for the proposed Glendale West 345kV line where the line would come out of the proposed Glendale Industrial Substation on the western side, and go around the city of Glendale to the west. If yes, please explain why this alternative was not selected. If no, please explain why this alternative was not considered.
- A-8. The Glendale South Substation (345 kV / 138 kV) is located on the northwest corner of the Glendale Megasite. Both proposed 345 kV lines terminate at the Glendale South Substation. From there, the proposed 138 kV lines will run to the Glendale Industrial Substation.

The Team Spatial Siting Study (page 6 of report) defines the limits of the study area in purple at page 6. The study limits (in purple) do include an area west of the City of Glendale and this area was included in the Team Spatial Siting Study as a potentially viable macro corridor. This area did not develop into a viable macro corridor based on the application of EPRI-GTC and Kentucky Siting Model applied to the study area. See the response to Question No. 10 for detailed explanation of this process.

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Question No. 9

Responding Witness: Elizabeth J. McFarland

- Q-9. When selecting the proposed routes of the Glendale West 345kV line and Glendale East 345kV line, did KU consider routing either line along the path of any future roads that may be built in or around the Ford Megasite, if KU has knowledge of any such future roads?
- A-9. In developing its study, Team Spatial contacted the Kentucky Transportation Cabinet ("KYTC") for road information. All current and future roadway projects that were supplied by KYTC were incorporated into Team Spatial's Siting Study. See page 27 of 87 and Appendix A Page 82 of the study.

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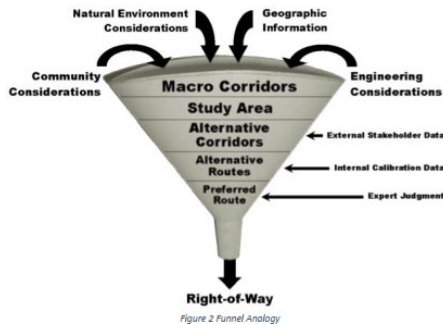
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Question No. 10

Responding Witness: Elizabeth J. McFarland

Q-10. Please explain whether KU considered any alternate routes for either proposed 345kV line other than those contained in the Siting Study. If yes, please detail any such routes and why they were not selected or contained in the Siting Study. If no, please explain why not.

A-10. Yes. In preparing its Siting Study, Team Spatial evaluated the entire study area for macro corridors as fully described in the EPRI-GTC Methodology and applied using the Kentucky Siting Model. Team Spatial’s routing methodology identifies the corridors and the tap points for the 345 kV lines in the study. This was done by using the EPRI-GTC Methodology described on page 7 of the Team Spatial report. This methodology breaks the study area into squares and assigns these squares (approximately 10’x10’ for this study area) a score based on land use (page 8). The land use score comes from the Kentucky Siting Model (page 7). Team Spatial was then able to develop macro corridors between the Glendale South Substation and the Hardin Co – Brown North 345 kV line that are lowest in score (most favorable). Once the optimal corridor is identified, the tap point was then selected. This is the basis of how the 345 kV corridors and routes were developed in the Team Spatial Siting Study.



					Start Point A
4	5	7	6	3	
14	20	10	1	2	
8	4	20	6	9	
6	8	1	12	10	
3	7	8	2	4	
					Point B

End

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Question No. 11

Responding Witness: Elizabeth J. McFarland

- Q-11. Please refer to the below map, which shows the Brown Parcels highlighted by yellow lines, the general location of an existing sewer line and easement in green, an approximation of the Glendale East 345kV line as proposed by KU in blue, and a potential alternate path for the Glendale West 345kV line in red. Please explain whether the path proposed in red is feasible to the best of KU's ability.



- A-11. KU has not studied the engineering feasibility of the exact route proposed in red. However, as explained in response to Question No. 10, Team Spatial's methodology identified the best possible corridors for the entire study area and then identified the best routes within those corridors. The route proposed in red was not one of those routes. See the response to Question No. 10.

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Question No. 12

Responding Witness: Elizabeth J. McFarland

- Q-12. Please refer to the below map and Question 11, above. Please explain whether the path proposed in red is feasible for placement of the proposed Glendale West 345kV line, to the best of KU's ability.



- A-12. KU has not studied the engineering feasibility of the exact route proposed in red. However, as explained in response to Question No. 10, Team Spatial's methodology identified the best possible corridors for the entire study area and then identified the best routes within those corridors. The route proposed in red was not one of those routes. See the response to Question No. 10.

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Question No. 13

Responding Witness: Elizabeth J. McFarland

- Q-13. Please refer to the below map and Questions 3 and 11, above. Please explain whether the path proposed in red is feasible for placement of the proposed Glendale West 345kV line, to the best of KU's ability.



- A-13. KU has not studied the engineering feasibility of the exact route proposed in red. However, as explained in response to Question No. 10, Team Spatial's methodology identified the best possible corridors for the entire study area and then identified the best routes within those corridors. The route proposed in red was not one of those routes. See the response to Question No. 10.