

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
WADE FAMILY FARM MANAGEMENT, LLC'S SUPPLEMENTAL DATA
REQUESTS
DATED MAY 2, 2022**

FILED: MAY 6, 2022

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 1

Responding Witness: Elizabeth J. McFarland

- Q-1. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 1.a. Please confirm that the entire known load of "the Ford battery production facilities and future load growth in the area" could be fully served by a single 345 kV transmission line.
- A-1. While the Glendale South Substation is expected to be capable of serving the planned battery production facilities and future load growth in the area from either the Hardin County source or the Brown North source, if load growth exceeds the transmission capacity of one source, capacity from the second source will be required.

For planned load of this size, the potential for load growth, and to meet customer reliability expectations, Good Utility Practice and prudent transmission planning requires more than one source as explained in the response to PSC 2-1a. In the event the load grows beyond the transmission capacity of one source, the two source line configuration into Glendale South Substation will still allow a majority of the load to be served during a line fault or failure, or a planned maintenance outage thus avoiding a complete Glendale South Substation outage.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 2

Responding Witness: Elizabeth J. McFarland

- Q-2. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 1.a. Please confirm that the initial purpose of a second proposed 345 kV transmission line is to provide redundancy in the event of a maintenance or emergency outage.
- A-2. See the response to Question No. 1.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 3

Responding Witness: Elizabeth J. McFarland

- Q-3. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 1.b. Please provide a schedule of all outages on KU's 345 kV transmission lines in 2019, 2020 and 2021 and identify the cause of the outage and the duration of the outage.
- A-3. See the table below for a list of all outage dates, causes, and duration on KU's 345 kV transmission lines from 2019, 2020, and 2021.

Date	Cause	Duration (minutes)
3/18/2019	Failed Substation Arrester	1,127
4/14/2019	Unknown	220
8/6/2019	Lightning	824
10/11/2019	Human Error/Incorrect Physical Execution	98
11/27/2019	Failed Line Static Suspension Clamp	5,748
4/5/2020	Failed Substation Breaker	1,404
4/8/2020	Vegetation/Fall-in (Outside ROW)	2,256
4/22/2020	Failed Substation Breaker	0.93
5/28/2020	Lightning	0.30
7/8/2020	Foreign Interference/Other utility equipment	3
7/9/2020	Foreign Interference/Other utility equipment	525
11/22/2020	Contamination/Bird Droppings Build-up	0.27
2/18/2021	Weather, excluding lightning/Ice/Sleet	5,764
7/11/2021	Foreign Interference/Animal	0.35
8/9/2021	Lightning	0.25
9/1/2021	Failed Protection System /Relay	326
11/11/2021	Foreign Interference/Animal	0.33
11/15/2021	Contamination/Bird Droppings Build-up	7

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 4

Responding Witness: Elizabeth J. McFarland

- Q-4. Please confirm that KU has existing industrial customers on its system whose load is served by a single high-voltage transmission line. In such situations, how does KU work with the customer on scheduled transmission maintenance outages?
- A-4. Yes, KU has existing industrial customers on its system whose load is served by a single radial high-voltage transmission line. KU coordinates and works with these customers to schedule transmission maintenance outages during planned customer shutdowns in order to minimize interruption of service during operational periods. It is important to note there are no customers served by a radial 345 kV line (Extra High Voltage or EHV) on KU's transmission system that are not curtailable. KU has only one customer served by a radial 345 kV line and that customer can be curtailed by KU. Additionally, this particular customer has other transmission and distribution circuits feeding other segments of their facility. Serving a large load such as Glendale from a radial line is not common nor considered prudent planning for the reasons discussed in the response to PSC 2-1a.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 5

Responding Witness: Elizabeth J. McFarland

- Q-5. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 5.b. Please identify the "house and land on the national historic registry" that is referenced in the response by PVA parcel number and the owner's name.
- A-5. PVA Parcel Number: 187-00-00-028
Owner Name: Niceley

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 6

Responding Witness: Elizabeth J. McFarland

- Q-6. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 6.b. Please confirm that KU intends to install a 138 kV transmission line on the proposed Western 345 kV Transmission Line's structures at some point in the future. If KU confirms that this is correct, please state when the installation is expected to occur and why it is necessary.
- A-6. No, KU currently does not have plans to install a 138 kV transmission line on the proposed Western 345 kV Transmission Line's structures.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 7

Responding Witness: Elizabeth J. McFarland

Q-7. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 10, Routing Map p. 29 of 37.

- a) Please confirm that the red dashed line which represents the extent of the transmission corridor which KU seeks in this case overlaps the pivot irrigation system shown on the map.
- b) Please identify how many feet the proposed 345 kV Circuit West easement could move to the west before it interferes with the pivot irrigation system.

A-7.

- a) Yes, the red dashed line does overlap the pivot irrigation system shown on the map. However, the red dashed line only indicates the edge of the 500-foot corridor from the transmission centerline. KU will not locate the proposed 345 kV transmission centerline or easement in such a way that it would interfere with the operation of the pivot irrigation system.
- b) The edge of the 200-ft wide easement is approximately 75 feet away from the pivot irrigation system.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 8

Responding Witness: Elizabeth J. McFarland

- Q-8. Please refer to KU's response to Commission's Staff's Second Request for Information, Question No. 10, Routing Map pp. 30-35 of 37. Please provide any and all records or documents involving or describing any communications with the City of Elizabethtown to obtain an easement to locate a portion of the Western 345 kV Transmission on the parcels identified as 188-00-00-27 and 188-00-00-035.
- A-8. Regarding parcel # 188-00-00-035, there have been no communications with the City of Elizabethtown with regards to obtaining an easement on this parcel. KU does not intend to obtain an easement on this parcel as the planned route does not impact this parcel.

Regarding parcel # 188-00-00-027, KU has been in communication with the City of Elizabethtown regarding the need to obtain an easement. See attached February 21, 2022 notice of survey letter. See Application Exhibits 19 and 20 for the March 11, 2022 landowner notice letter and the list of parcel IDs notified. There have been no verbal communications with the City of Elizabethtown regarding the necessary easement.



a PPL company

February 21, 2022

City of Elizabethtown
200 W. Dixie Ave.
Elizabethtown, KY 42701

Kentucky Utilities Company
Real Estate & Right of Way
820 West Broadway
Louisville, KY 40202
www.lge-ku.com

Re: Kentucky Utilities Company's Transmission Lines Project in Hardin County, Kentucky

Dear City of Elizabethtown,

We are reaching out to inform you of upcoming work that Kentucky Utilities Company ("KU") will soon perform in your area as part KU's construction of new electric transmission lines in Hardin County, Kentucky, necessary to serve the anticipated demand of customers in the area.

In preparation for this work, KU has engaged the firms AGE Engineering Services, Inc., American Engineers, Inc., and Burns & McDonnell Engineering Company, Inc. to perform property boundary and field surveys, and environmental analysis. The results of these surveys and analysis will aid KU in designing the transmission lines and determining where easements will be required.

In accordance with Kentucky statute KRS 416.560(4), KU has the right to access your property for surveying purposes with ten (10) days prior notice. By this letter, KU is providing the ten days' notice to you to inform you that KU's engineers, surveyors, and environmental specialists will be working on or near your property starting the week of March 7th or soon after to collect information necessary for the design of the transmission lines and the assessment of any environmental impacts. Where possible, efforts will be made (e.g., knock on door) by these individuals to personally contact you prior to accessing your property to ensure your awareness of this work.

KU must complete surveys to determine if or where an easement may exist on your property (Parcel Number 187-00-00-027) and ensure the easement is suitable from an engineering and environmental perspective. If an easement on your property is required, KU will contact you to discuss and offer compensation for the easement. KU cannot make such an offer without surveying the property and determining the size of the needed easement. KU has engaged Emerald Energy & Exploration Land Company to assist KU with those negotiations and provide ongoing communications of field survey activity on your property.

If you have questions or would like additional information, please contact us by phone at 859-367-5423 (Press 5) or by email at transmission.line@lge-ku.com. Please be sure to provide your name and a number where you can be reached along with a brief explanation about your question or concern. We will reply to you as soon as possible. We appreciate your cooperation on this project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jeff Kuriger', is written over a light blue horizontal line.

Jeff Kuriger, Lead Right of Way Agent

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 9

Responding Witness: Elizabeth J. McFarland

- Q-9. Please refer to KU's Response to the Wade Family Farm's Initial Request for Information, Question 12(c). The response is non-responsive. Please provide the documents that demonstrate that KU and Team Spatial agreed to the weighting criteria for the Expert Judgment Model prior to developing the proposed and alternative routes for the Western 345 kV Transmission Line.
- A-9. KU disagrees that its response to Wade 1-12(c) is not responsive. The Team Spatial Siting Study is the documentation. Team Spatial along with the KU project team determined the weighting criteria with the study area and project scope in mind prior to the proposed corridor and route selection. Paragraph 6, page 60 of 87 of the Team Spatial Siting Study shows the breakdown of the weighting criteria.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 10

Responding Witness: Elizabeth J. McFarland

- Q-10. Please provide an explanation of why Team Spatial and/or KU changed the weighting of certain criteria from the Kentucky Transmission Line Siting Methodology/Kentucky Transmission Line Model and how they determined the new weights. Please provide any documents prepared or created by Team Spatial or KU with the rationale for determining the weighting of the criteria that differ from the Kentucky Transmission Line Siting Methodology/Kentucky Transmission Line Model.
- A-10. There are no documents specifically prepared by KU and Team Spatial, however there are documents that support the process. The general value calibration process is discussed in "EPRI-GTC Overhead Electric Transmission Line Siting Methodology" (February 2006) Page 43 of 198 for Feature Calibration as footnoted on Team Spatial Siting Study, Page 7 of 87. The features are ranked on a scale of 1-9 based on the relative suitability of the features within each layer. Each layer must have a 1 and 9. When the least suitable feature is not present in the Kentucky Siting Model within an area, the values are renormalized to keep the layer on a scale of 1 – 9, while maintaining the relative suitability of the Kentucky Siting Model. Each layer within a perspective is weighted as a percentage to equal 100% of the perspective. When a layer is not present in the study area, the weight that is assigned in that area is redistributed proportionally to the other layers in that perspective. These weighting distributions are based off of the EPRI-GTC Siting Methodology.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information**

Dated May 2, 2022

Case No. 2020-00066

Question No. 11

Responding Witness: Elizabeth J. McFarland

Q-11. Refer to paragraph four (4) of the Application which states that KU anticipates beginning pre-construction in July 2022.

- (a) Please explain what future on-site field surveys are anticipated and the proposed schedule for those surveys given that the statutory deadline for issuance or denial of the requested CPCN is June 28, 2022.
- (b) Will all the surveys identified above be completed prior to the start of the proposed pre-construction activities in July 2022? If not, which surveys will be completed prior to the proposed pre-construction activities in July 2022 and which surveys will not be completed prior to commencement of pre-construction activities?
- (c) Will any field surveys for underground storage tanks be completed prior to the proposed pre-construction activities in July 2022?
- (d) Does KU or its consultants plan to conduct historic properties and archaeological field studies or surveys and if so, what is the anticipated schedule?
- (e) Will historic properties and archaeological studies or surveys be completed prior to the start of pre-construction activities?

A-11.

- (a) In paragraph 4 of the Application, pre-construction in July 2022 refers to the substation site preparation work. On-site field soil resistivity and geotechnical surveys are to be completed by KU prior to June 28, 2022. In addition, KU intends to comply with additional requirements as directed by USACE, which may require additional field surveys.
- (b) Yes, however additional on-site field surveys may be required if unexpected subsurface conditions are encountered during construction.

- (c) For KU transmission lines, the presence of any registered underground storage tanks is initially identified by data collected by Team Spatial and aerial photography. Currently there are no surveys for underground storage tanks planned but if future conditions warrant this survey one will be performed.
- (d) For KU transmission lines, General Condition No. 20 of NWP #57 pertains to compliance with Section 106 of the National Historic Preservation Act and whether the nationwide permit activity might have the potential to cause effects to any historic properties. It remains to be seen what USACE will require for historic properties and archaeological field studies or surveys. KU is working with USACE and intends to comply with General Condition No. 20 of NWP #57 as directed by the USACE.
- (e) For transmission lines, KU's consultant intends to submit an Approved Jurisdictional Determination and Nationwide Permit Determination request to the USACE in May 2022. KU has completed desktop reviews and intends to comply with General Condition No. 20 of NWP #57 as directed by the USACE. Any necessary studies/surveys and schedules will be determined at that time.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information**

Dated May 2, 2022

Case No. 2020-00066

Question No. 12

Responding Witness: Elizabeth J. McFarland

- Q-12. Please refer to Application, Exhibit 4, List of Required Permits.
- (a) Exhibit 4 identifies the need for a Nationwide Permit (NWP) No. 57, please identify when this permit and any supporting studies will be prepared and submitted to the United States Army Corps of Engineers (USACE).
 - (b) Under NWP No. 57 General Condition 18: Endangered Species, no activity is authorized which “may affect” a listed species unless Endangered Species Act Section 7 consultation has been completed. Since habitat for the federally listed endangered Indiana bat and threatened northern long-eared bat (proposed to be reclassified as endangered, 87 Fed. Reg. 16442-16452 (March 23, 2022)) has been identified in the project area, will KU or its consultants conduct bat studies this year during the survey window (May 15 - August 15) to determine the presence/probable absence of listed bat species or assume their presence and participate in formal Section 7 consultations with the USFWS prior to starting pre-construction activities?
 - (c) Under NWP No. 57 General Condition No. 20: Historic Properties, has KU or its consultants submitted a pre-construction notification or had informal consultation with the USACE or Kentucky Heritage Council concerning potential effects (including indirect visual effects) to historic properties listed or potentially eligible for listing on the National Register of Historic Properties?
- A-12.
- (a) For transmission lines, KU’s consultant intends to submit an Approved Jurisdictional Determination and Nationwide Permit Determination request to the USACE in May 2022. Ford will be handling all permits associated with the substation location sites.
 - (b) For KU transmission lines, General Condition No. 18 of NWP #57 pertains to compliance with the Federal Endangered Species Act. It remains to be seen whether the USACE will determine if the proposed activity “may affect” any

endangered species. KU intends to comply with General Condition No 18 of NWP #57 as directed by the USACE. Ford will be handling all permits associated with the substation location sites.

- (c) For KU the answer is No. However, KU's consultant intends to submit an Approved Jurisdictional Determination and Nationwide Permit Determination request to the USACE in May 2022. KU intends to comply with the USACE requirements for NWP No. 57 General Condition No. 20 as directed by the USACE. Ford will be handling all permits associated with the substation location sites.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 13

Responding Witness: Elizabeth J. McFarland

- Q-13. Please refer to KU Response to Wade Family Farm Management, LLC's Initial Request for Information (April 21, 2022), Question No. 10. Also refer to the Team Spatial Report, Source Data Appendix A, Page 84.
- (a) Assuming sandhill crane roost sites and foraging habitat occurs on the Wade Family Farm, how will KU avoid or minimize impact to sandhill cranes on the Wade Family Farm?
 - (b) Has KU or its consultants contacted the USFWS – Kentucky Field Office as required under Nationwide Permit No. 57 General Condition No. 19 to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds?
 - (c) If KU has had any such contact, please provide copies of documentation of any such contacts or discussions with the USFWS. If no contact has occurred, please provide a schedule on when contact is anticipated.
- A-13.
- (a) For KU transmission lines, KU intends to comply with General Condition No. 19 of NWP #57 as directed by the USACE.
 - (b) For KU transmission lines, General Condition No. 19 of NWP #57 pertains to compliance with the Migratory Bird Treaty Act (MBTA). At this time neither KU nor its consultant have contacted the USFWS – Kentucky Field Office regarding compliance with the MBTA. KU intends to comply with General Condition No. 19 of NWP #57 as directed by the USACE.
 - (c) For KU transmission lines, any contact or discussion with USFWS would be performed after KU's consultant submits the Approved Jurisdictional Determination and Nationwide Permit Determination request to USACE.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information**

Dated May 2, 2022

Case No. 2020-00066

Question No. 14

Responding Witness: Elizabeth J. McFarland

Q-14. Please refer to KU Response to Wade Family Farm Management, LLC's Initial Request for Information (April 21, 2022), Question Nos. 18 and 19.

- (a) In response to Question No. 18(b), Team Spatial states data was brought into the site study via electronic GIS files from Arcadis. Please provide the list of the historic resources and archaeological sites used by Arcadis and included in this data.
- (b) The Kentucky Office of State Archaeology (OSA) provides data on the location of archaeological sites and GIS of areas previously archaeological surveyed within the Study Area. Is Arcadis stating it does not have data on how much of the Study Area or the transmission line alternates have been surveyed based on OSA data?
- (c) How will KU mitigate for the potential adverse visual impact on Maplehurst (HD-7) a listed historic property on the National Register of Historic Properties?
- (d) What mitigation measures has KU previously used for mitigating adverse visual impacts on listed or eligible for listing historic properties from proposed transmission line projects?

A-14.

- (a) KU understands that public release of the information in question could potentially result in trespass and looting on properties with historic resources and archeological artifacts. Accordingly, the Kentucky Office of State Archeology and State Historic Preservation provided it to Arcadis as proprietary and confidential information.
- (b) No. Arcadis asked The Kentucky Office of State Archaeology (OSA) for the information for the entire study area. Arcadis used the information that was provided by OSA.

- (c) It remains to be seen whether USACE will determine that the proposed nationwide permit activity has the potential to cause effects on historic properties. KU transmission lines intends to comply with General Condition No. 20 of NWP #57 as directed by the USACE.

- (d) After preliminary and reasonable inquiry of past transmission line projects, KU has not been required to make modifications for visual impacts on transmission line projects.

KENTUCKY UTILITIES COMPANY

**Response to Wade Family Farm Management, LLC's
Supplemental Request for Information
Dated May 2, 2022**

Case No. 2020-00066

Question No. 15

Responding Witness: Elizabeth J. McFarland

Q-15. KU and its consultants appear to have initiated geotechnical studies/investigations.

- (a) What geotechnical investigations or studies have been started or completed?
- (b) Did these studies evaluate sinkholes in the Study Area or proposed routes?

A-15.

- (a) Geotechnical investigation has been completed at all but one lattice tower, Twr #38, along the East and West 345 kV routes. Sampling was gathered on soil and rock to determine foundation design parameters. This information was used to provide site geology and recommendations relative to foundation design and construction of the structures.
- (b) The geotechnical investigation documented any karst features that were encountered at these specific sites.