

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

<b>ELECTRONIC APPLICATION OF EAST</b>	)	
<b>KENTUCKY POWER COOPERATIVE, INC. FOR</b>	)	
<b>CERTIFICATES OF PUBLIC CONVENIENCE</b>	)	<b>CASE NO.</b>
<b>AND NECESSITY FOR CONSTRUCTION</b>	)	<b>2024-00108</b>
<b>PROJECTS IN MARION COUNTY, KENTUCKY</b>	)	
<b>AND OTHER GENERAL RELIEF</b>	)	

**RESPONSES TO COMMISSION STAFF’S SECOND INFORMATION REQUEST**

**TO EAST KENTUCKY POWER COOPERATIVE, INC.**

**DATED JULY 22, 2024**

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST	)	
KENTUCKY POWER COOPERATIVE, INC.	)	
FOR CERTIFICATES OF PUBLIC	)	CASE NO.
CONVENIENCE AND NECESSITY FOR	)	2024-00108
CONSTRUCTION PROJECTS IN MARION	)	
COUNTY, KENTUCKY AND OTHER	)	
GENERAL RELIEF	)	

CERTIFICATE

STATE OF KENTUCKY )  
 )  
 COUNTY OF CLARK )

Darrin Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Staff’s Second Request for Information in the above-referenced case dated July 22, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

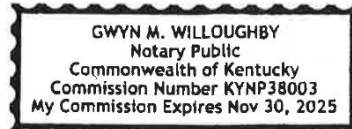
*Darrin Adams*

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Darrin Adams

Subscribed and sworn before me on this 5<sup>th</sup> day of August, 2024.

*Gwyn M. Willoughby*  
 Notary Public



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

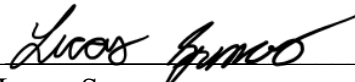
In the Matter of:

ELECTRONIC APPLICATION OF EAST	)	
KENTUCKY POWER COOPERATIVE, INC.	)	
FOR CERTIFICATES OF PUBLIC	)	CASE NO.
CONVENIENCE AND NECESSITY FOR	)	2024-00108
CONSTRUCTION PROJECTS IN MARION	)	
COUNTY, KENTUCKY AND OTHER	)	
GENERAL RELIEF	)	

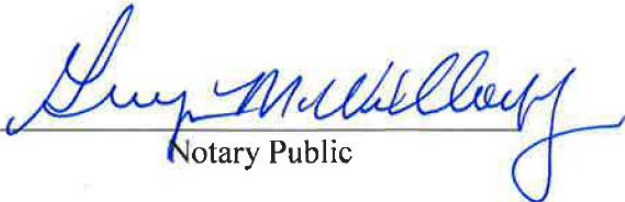
CERTIFICATE

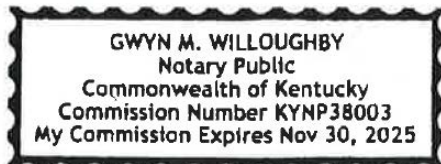
STATE OF KENTUCKY )  
COUNTY OF CLARK )

Lucas Spencer, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Staff’s Second Request for Information in the above-referenced case dated July 22, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

  
\_\_\_\_\_  
Lucas Spencer

Subscribed and sworn before me on this 5<sup>th</sup> day of August, 2024.

  
\_\_\_\_\_  
Notary Public



EAST KENTUCKY POWER COOPERATIVE, INC.  
CASE NO. 2024-00108  
SECOND REQUEST FOR INFORMATION RESPONSE

COMMISSION STAFF'S REQUEST DATED JULY 22, 2024

REQUEST 1

RESPONSIBLE PARTY: Lucas Spencer

**Request 1.** Refer to EKPC's response to Commission Staff's First Request for Information (Staff's First Request), Item 19.

a. Provide an estimate of the value of the Lebanon substation property to be sold upon retirement and provide any documents supporting that estimate.

b. Identify any savings that would be realized as a result of releasing right-of-way to landowners.

**Response 1a.** The estimated value of the Lebanon substation property is \$253,997.75. This figure was calculated by multiplying the average commercial land value per acre, which is \$67,932.00, by the total acreage of the property, approximately 3.739 acres. This estimated price per acre was calculated by reviewing the recent sales of land in Marion County from the Marion County PVA. See *Exhibit DR2-LS1.pdf* for the property sales analyzed for the calculation.

**Response 1b.** By releasing the right-of-way to the landowners, savings would be achieved by no longer needing to maintain the Lebanon substation transmission tap line. EKPC plans to

release the existing right-of-way on the transmission tap to the landowners upon the retirement of the Lebanon substation.

**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**CASE NO. 2024-00108**  
**SECOND REQUEST FOR INFORMATION RESPONSE**

**COMMISSION STAFF'S REQUEST DATED JULY 22, 2024**

**REQUEST 2**

**RESPONSIBLE PARTY:** Darrin Adams and Lucas Spencer

**Request 2.** Identify the expected useful life of the expected useful lives of the planned transmission lines and substation and the planned depreciation rate to be used.

**Response 2.** The expected useful life of the planned transmission lines is anticipated to be between 50 to 70 years before the first maintenance of the galvanized steel poles. The ACSR conductor is expected to have an average service life of at least 67 years. The substation steel is projected to require its first maintenance around 70 years, while the substation equipment is expected to have a lifespan of 35 to 40 years before the first maintenance is needed.

The assumed depreciation rate for the planned "Metts Drive" substation is 2.54%. This rate is reflective of Station Equipment for a Distribution Plant as found in EKPC's latest depreciation study. The assumed depreciation rate for the planned transmission lines is 2.84%. This rate is an effective rate based on depreciation rates found in the latest depreciation study for the following accounts: Towers and Fixtures, Poles and Fixtures and Overhead Conductors and Devices. These rates -- 1.66%, 2.82% and 2.9% respectively -- are applied to the 2023 year-end balance as reported on EKPC's 2023 FERC Form 1 for each of the accounts specified to obtain total

depreciated value. The sum of the depreciated value is divided by the sum of total account balances to obtain the effective depreciation rate of 2.84%.

Account	Bal. as of 12/31/2023	Depr. %	Depr. \$	Effective Rate
Towers and Fixtures	\$4,418,484	1.66%	\$73,347	<b>2.84%</b>
Poles and Fixtures	\$239,938,471	2.82%	\$6,766,265	
Overhead Conductors and Devices	\$141,711,985	2.90%	\$4,109,648	
Total	\$386,068,940		\$10,949,259	

These rates are consistent with those determined in EKPC’s latest depreciation study conducted by Mr. John Spanos, President at Gannet Fleming Valuation and Rate Consultants, LLC. This study was filed and approved in PSC Case No. 2021-0103.

**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**CASE NO. 2024-00108**  
**SECOND REQUEST FOR INFORMATION RESPONSE**

**COMMISSION STAFF'S REQUEST DATED JULY 22, 2024**

**REQUEST 3**

**RESPONSIBLE PARTY:** Darrin Adams

**Request 3.** Identify the depreciation rate that was used for the Lebanon substation.

**Response 3.** The depreciation rate used for the Lebanon substation is 2.54%, which is EKPC's current rate for station equipment for distribution plant. This rate is consistent with EKPC's latest depreciation study conducted by Mr. John Spanos, President at Gannet Fleming Valuation and Rate Consultants, LLC. This study was filed and approved in PSC Case No. 2021-0103.



**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**CASE NO. 2024-00108**  
**SECOND REQUEST FOR INFORMATION RESPONSE**

**COMMISSION STAFF'S REQUEST DATED JULY 22, 2024**

**REQUEST 4**

**RESPONSIBLE PARTY:** Darrin Adams

**Request 4.** Refer to EKPC's response to Staff's First Request, Item 12. Explain the significance of "elevated dissolved gas levels" in the Lebanon substation transformer.

**Response 4.** The comment of elevated dissolved gas levels in EKPC's response to Staff's First Request, Item 12 pertains primarily to the particular vintage and design of the Lebanon substation transformer. This transformer is a rectangular-core design manufactured by ABB. These types of ABB transformers are known to be prone to elevated internal dissolved hydrogen levels, which is indicative of partial internal discharge and results in a significant risk of a transformer failure. EKPC has experienced several failures of this particular type of transformer, and additionally has replaced a number of these transformers due to testing results indicating these elevated dissolved-gas levels. The latest dissolved-gas analysis ("DGA") for the Lebanon substation transformer does not indicate the onset of dissolved-gas levels that are of concern yet for this particular unit. Due to the known issue with this transformer design, EKPC personnel take transformer oil samples from all transformers of this design bi-annually rather than only once a year, which is the standard practice for other substation transformers. This aids

in identifying the onset of a gassing issue early in order to plan a transformer replacement prior to a failure.