Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_01** Refer to Kentucky Power's customer notice of tariff change, page 4, Section 15 – Attachment Inventory. Confirm that the existing practice regarding attachment inventories is not included in Kentucky Power's current tariff.

**RESPONSE**

Kentucky Power confirms that Section 15 in the Revised Tariff P.A. ("Revised Tariff") is new and not included in Kentucky Power's current Tariff C.A.T.V. ("Current Tariff"). However, several of the core elements of the new Section 15 are actually reflected in the Current Tariff. *See* Kentucky Power Company Tariff C.A.T.V., P.S.C. KY. NO. 12 ORIGINAL SHEET NO. 16-3, Pole Inspection (effective Jan. 1, 2021) ("Company may make periodic inspections, as conditions may warrant, for the purpose of determining compliance with the provisions of this Tariff."); *see id*. at ORIGINAL SHEET NO. 16-3, Unauthorized Attachments ("Operator shall make no attachment to or other use of any pole of Company or any facilities of Company thereon, except as authorized. The company reserves the right to make periodic inspections. Should such unauthorized attachment or use be made, Operator shall pay to the Company on demand two times the charges and fees….").

Witness: Pamela F. Ellis

**DATA REQUEST**

**KPSC 1_02** Refer to Kentucky Power's proposed tariff, P.S.C. KY No. 12, First Revised Sheet No. 16–2. Provide support for the following new charges:

a. $2.70 per linear foot per year for attachments within ducts or conduit;

b. $150 per attachment per year for attachment of wireless facility to top of distribution pole; and

c. $75 per attachment per year for attachment of wireless facility within communications space of distribution pole.

**RESPONSE**

a. As explained in Kentucky Power's response to the objections filed by KBCA, Kentucky Power calculated the $2.70/linear foot conduit rate ("Conduit Rate") using the formula set forth by the Commission in *The Adoption of a Standard Methodology for Establishing Rates for Conduit Usage*, Order, Administrative Case No. 304, 1987 Ky. PUC LEXIS 12 (May 4, 1987) (the "Conduit Rate Order"). *See* Response of Kentucky Power Company to the Objections of AT&T and Kentucky Broadband & Cable Association to Revised Tariff P.A. ("Kentucky Power's Response to Objections") at 5-6 (Apr. 14, 2022). The only variation from this formula is that Kentucky Power calculated the Conduit Rate using a "net book value" methodology rather than a "gross book value" methodology. As the Commission noted in the Conduit Rate Order, though, "both methodologies produce the same result. Conduit Rate Order at 9. The year-end 12/31/2020 cost and other data that Kentucky Power used to calculate the Conduit Rate is attached hereto as KPCO_R_KPSC_1_02_Attachment1. This data was also included as Exhibit A to Kentucky Power's Response to Objections.

b. The $150 rate accounts for the quantitatively different way in which wireless pole-top attachments burden Kentucky Power's poles. First, wireless pole-top attachments occupy significantly more space than traditional wireline attachments due to the nature of the facilities and the additional clearances required by those facilities. Wireline attachments within the communications space typically occupy about one (1) foot of space, whereas wireless pole-top attachments often occupy between five (5) to ten (10) feet of space. Second, unlike traditional wireline attachments, wireless pole-top attachments are installed in the supply space—*i.e.*, in close proximity to Kentucky Power's electric lines and equipment. This makes it more expensive for Kentucky Power to perform maintenance on its own facilities. Third, wireless pole top attachments almost always require a pole replacement to create additional height and strength. The newer, taller, stronger poles necessary to accommodate wireless pole top attachments have a higher annual carrying cost than the average pole in Kentucky Power's system. Fourth, because

of the variability in wireless pole top antenna installations, a precise cost-based approach would require negotiations (and invite disputes) with respect to each new configuration or array. The $150 price point fairly accounts for a wide range of circumstances, provides predictability to attaching entities and allows Kentucky Power to identify a specific price point within its tariff.

c. $75/pole is the rate charged by Kentucky Power's affiliates in other jurisdictions for wireless antenna attachments within the communication space. Wireless antenna attachments within the communications space occupy less space and present fewer operational challenges than wireless pole top attachments. For this reason, Kentucky Power believes such attachments warrant a lower rate than wireless pole top attachments. The $75 rate, though, still accounts for the quantitatively different way in which wireless facilities occupy space on Kentucky Power's poles as compared to traditional wireline attachments. While traditional wireline attachments occupy—on average—approximately one (1) foot of space, wireless facilities often occupy multiple feet of space within the communications space. Furthermore, wireless facilities are comprised of antennas and ancillary equipment that emit radiofrequency ("RF") radiation. RF radiation poses a threat to the safety of personnel working on or near Kentucky Power's poles. To mitigate against these risks, Kentucky Power must devote additional resources to monitoring wireless facilities.

Witness: Pamela F. Ellis

**EXHIBIT A**

**Year-End 12/31/2020 Data Used In Conduit Rate Calculation**

**Gross Investment**

| | | | |
|---|---|---|---|
| A | Underground Conduit | FERC Account 366 | $7,922,239 |
| B | Underground Conductors & Devices | FERC Account 367 | $12,123,529 |
| C | Total Distribution Plant | Page 207 | $954,945,289 |
| D | Total Utility Plant | Page 200 | $3,012,297,428 |

**Depreciation Reserve**

| | | | |
|---|---|---|---|
| E | Underground Conduit | (G/C)*A | $2,369,615 |
| F | Underground Conductors & Devices | (G/C)*B | $3,626,260 |
| G | Total Distribution Plant | Page 219 | $285,632,969 |
| H | Total Utility Plant | Page 200 | $1,089,649,675 |

**Deferred Taxes**

| | | | |
|---|---|---|---|
| I | Underground Conduit | (A-E)/(D-H)*K | $1,544,268 |
| J | Underground Conductors & Devices | (B-F)/(D-H)*K | $2,363,219 |
| K | Total Utility Plant | FERC Accounts 281, 282, 283 & 190 | $534,717,339 |

**Other Data**

| | | | |
|---|---|---|---|
| L | Conduit Maintenance | (A-E-I)/(B-F-J)*M | $30,916 |
| M | Underground Maintenance | FERC Account 594 | $78,228 |
| N | Administrative & Overhead | Page 323 | $22,516,742 |
| O | Operating Taxes | FERC Accounts 408, 409.1, 410.1, 411.1 & 411.4 | $24,036,220 |
| P | Gross Distribution Plant Depreciation Rate | Finance Dept. | 3.43% |
| Q | Rate of Return | Commission Order 2020-00174 | 6.19% |
| R | Conduit Feet | Plant Accounting | 254,059 |

*Page numbers above reference pages in the year-end 12/31/2020 Kentucky Power Company FERC Form 1.

**DATA REQUEST**

**KPSC 1_03** Refer to Kentucky Power's proposed tariff, P.S.C. KY No. 12, Original Sheet No. 16–8, Unauthorized Attachments. Provide support for the following penalties:

a. $25 for each unauthorized attachment within the communications space on a distribution pole;
b. $500 for each unauthorized attachment above the communications space on a distribution pole; and
c. $500 for each unauthorized attachment within a duct.

**RESPONSE**

a. Under the Current Tariff, attaching entities are required to pay twice the amount of back rent due for unauthorized attachments dating back to the date on which the last attachment inventory was performed. *See* Kentucky Power Company Tariff C.A.T.V., P.S.C. KY. NO. 12 ORIGINAL SHEET NO. 16-3, Unauthorized Attachments (effective Jan. 14, 2021). Depending on the period of time since the last inventory, the $25 penalty, in conjunction with a presumed back rent period of two (2) years, may be slightly less or slightly more than the penalty in the Current Tariff, but it is more objective—in other words, the penalty is not dependent on the length of time the unauthorized attachment has been in place. Only the back rent is dependent on this variable. The penalty provision is intended to make non-compliance with Kentucky Power's permitting requirements more costly than compliance. The permitting process (the process by which an attaching entity obtains authorization to make an attachment) exists to protect the safety and reliability of Kentucky Power's electric distribution facilities. It does so by ensuring that new burdens on the distribution facilities are properly engineered and installed. Kentucky Power believes that the $25/attachment penalty for unauthorized attachments in the communications space is both reasonable and conservative. For instance, Louisville Gas and Electric Company and Kentucky Utilities Company have included a $25/attachment penalty for unauthorized attachments in their tariffs since May 2019. *See* Louisville Gas and Electric Company Pole and Structure Attachment Charges, P.S.C. Electric No. 12, Original Sheet No. 40.18, Section 19 (effective May 1, 2019); Kentucky Utilities Company Pole and Structure Attachment Charges, P.S.C. No. 19, Original Sheet No. 40.18, Section 19 (effective May 1, 2019). Furthermore, the Federal Communications Commission has stated that it would consider a penalty for unauthorized attachments to be "presumptively reasonable" so long as the penalty does not exceed "five times the current annual rental fee per pole if the occupant does not have a permit and the violation is self-reported or discovered through a joint inspection, with an additional sanction of $100 per pole if the violation is found by the pole owner in an inspection in which the

pole occupant has declined to participate." *Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, Report and Order and Order on Reconsideration, WC Docket No. 07-245, GN Docket No. 09-51, 26 FCC Rcd 5240, 5291 at ¶ 115 (Apr. 7, 2011). Depending on whether the unauthorized attachment was made to a two-user or three-user pole, a penalty of "five times the current annual rental fee" would be either $33.55 or $54.10 per unauthorized attachment—either 34% or 116% higher than Kentucky Power's proposed penalty of $25 per unauthorized attachment. The $25 penalty is particularly modest considering that the presumed back rent period (i.e., reimbursement for the misappropriated property) is only two years under the Revised Tariff.

b. To the extent applicable, Kentucky Power incorporates by reference its response to Data Request 3.a. *supra*. Kentucky Power incorporated this $500 penalty into its Revised Tariff because the Commission's new pole attachment regulations provide new attachers with the right to perform self-help make-ready above the communications space. None of the stakeholders in this proceeding have raised any objections to this unauthorized attachment penalty. Kentucky Power believes that a higher penalty is justified for unauthorized attachments within the supply space because supply space make-ready is significantly more dangerous than make-ready within the communications space. *See* Kentucky Power's Comments Regarding Proposed Chapter 807 KAR 5:015, Access and Attachments to Utility Poles and Facilities at 6 (Jul. 30, 2021) ("[T]he risks of the proposed electric supply space self-help remedy are immense. Make-ready in the electric supply space is more complicated and significantly more dangerous than make-ready in the communications space. This not only means that mistakes would be more prevalent with a self-help remedy in the electric supply space, but it also means that the consequences of such mistakes would be more severe. Missteps amongst electric supply lines can lead to power outages, and in some cases, even fatal injuries."). To help mitigate these serious risks, Kentucky Power has incorporated a new section in its Revised Tariff addressing self-help make-ready within the supply space. *See* Revised Tariff, P.S.C. KY. NO. 12 ORIGINAL SHEET NO. 16-6, Section 11 (requiring attaching entities to utilize an "approved contractor" when performing self-help within the supply space). While this requirement should alleviate some of the risks posed by supply space self-help, it only does so if attaching entities comply with Kentucky Power's permitting and installation requirements—*i.e.*, make *authorized* attachments. Therefore, the penalty for making unauthorized attachments in the supply space must be significantly higher than the penalty for unauthored attachments in the communications space and substantial enough to serve as a meaningful deterrent.

c. Similar considerations apply in the context of Kentucky Power's ducts and conduit. While the operating voltages of Kentucky Power's underground electric distribution

facilities are lower, there are unique and significant safety risks associated with working near electric distribution lines in a confined space. While Kentucky Power's ducts and conduit do not currently host any third-party attachments, Kentucky Power is in the process of developing protocols that would govern such attachments in the future. These protocols will require, *inter alia*, that any work performed within Kentucky Power's ducts or conduit be performed by an approved contractor and in the presence of a Kentucky Power-designated inspector. To the extent an unauthorized attachment is made within Kentucky Power's ducts or conduit in the future, it would necessarily mean that the attachment was installed outside of these critical safeguards, which poses a significant risk of injury to the installer and damage to Kentucky Power's underground distribution facilities. The higher unauthorized attachment penalty accounts for this increased danger and is intended to promote safe working conditions.

Witness: Pamela F. Ellis

**DATA REQUEST**

**KPSC 1_04** Refer to Kentucky Power's proposed tariff, P.S.C. KY No. 12, First Revised Sheet No. 16–9, Performance Assurance.

a. Explain what the performance assurance is intended to secure, including specifically whether the performance assurance is intended to secure Kentucky Power against a loss arising from an occurrence that would be covered by a typical general liability insurance policy.

b. Explain whether there is a market for instruments that would offer such performance assurance.

c. Explain how the amounts for performance assurance were determined.

**RESPONSE**

a. The performance assurance requirement is intended to secure against losses that are generally not covered by insurance policies, such as non-payment of amounts owed. Specifically, as set forth in Section 21 of the Revised Tariff, the performance assurance requirement is designed to "guarantee the payment of any sums which may become due for attachment charges, inspections, or work performed by Company under this Tariff, including the removal of Attachments upon termination of any license hereunder." For example, since 2017, Kentucky Power has written off $89,128.57 of unpaid pole attachment rental bills.

b. Yes. Kentucky Power believes that a market for performance assurance (either through the issuance of surety bonds or letters of credit) does exist. Kentucky Power has long required in its pole attachment license agreements with competitive local exchange carriers ("CLECs") that the CLECs obtain either a surety bond or letter of credit to guarantee the payment of amounts due under the agreements, and Kentucky Power has received the required bonds or letters of credit from these attaching entities. Furthermore, Kentucky Power's affiliates operate in ten (10) other states and commonly require a bond or other type of security instrument as part of their pole attachment license agreements, and the attaching entities generally comply. Finally, Louisville Gas and Electric Company and Kentucky Utilities Company have required attaching entities to provide some form of performance assurance since 2017. *See* Louisville Gas and Electric Company Pole and Structure Attachment Charges, P.S.C. Electric No. 11, Original Sheet No. 40.19, Section 24 (effective Jul. 1, 2017); Kentucky Utilities Company Pole and

Structure Attachment Charges, P.S.C. Electric No. 18, Original Sheet No. 40.19, Section 24 (effective Jul. 1, 2017).

c. Kentucky Power determined the amounts of required performance assurance in Section 21 by examining the financial risks associated with non-payment of charges and fees due under its pole attachment tariff and the cost of removing non-compliant or abandoned attachments from its poles. Kentucky Power believes that the amount of performance assurance due under the Revised Tariff is reasonable—if not understated. For example, an attaching entity with 15,000 attachments on Kentucky Power's poles would be required to provide Kentucky Power with $225,000 in performance assurance. If the attaching entity fails to pay its annual attachment charges for a single year, its failure to pay would draw down the performance assurance by almost 50%—i.e., 15,000 attachments x $6.71 annual attachment charge = $100,650 drawdown (and this assumes that all attachments are on three-user poles rather than two-user poles; two-user poles carry a higher per attachment rate). If the attaching entity persistently fails to pay annual attachment charges and, instead, decides to abandon its attachments, Kentucky Power would incur a significant financial liability to remove the abandoned attachments from its poles. The cost of removing communications attachments can exceed $100/pole. In this scenario, it could cost Kentucky Power up to $1,500,000—well in excess of the attaching entity's $225,000 performance assurance—to remove the abandoned system. The amounts of performance insurance in Section 21 are intended to strike a balance between the risk of non-payment and the financial burden on an attaching entity. Because none of the stakeholders in this proceeding raised any objection to Section 21 of the Revised Tariff, the proposed performance assurance requirements appear to have struck the right balance.

Witness: Pamela F. Ellis

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_05** Refer to Kentucky Power's proposed tariff, KY P.S.C. No. 12, Original Sheet No. 16–11, Payment. Also refer to Kentucky Power's current tariff, KY P.S.C. No. 12, Original Sheet No. 16–1, Delayed Payment Charge.

a. Regarding payments not made on time, explain the reasoning for moving from a 5 percent late payment charge to monthly simple interest at 1.5 percent.

b. Explain why 807 KAR 5:006, Section 9(3)(h), which states that a late payment charge may be assessed only once on a bill for rendered services, would not apply to the interest charge.

**RESPONSE**

a. There are several reasons for Kentucky Power switching from the 5% late payment charge to monthly simple interest at a rate of 1.5%. First, Kentucky Power determined that the 5% penalty was unnecessarily high for balances that are only briefly overdue, and unreasonably low for balances that are significantly overdue. Second, the existing, one-time late payment charge of 5% did little to incentivize satisfaction of overdue balances. Once the late payment charge is incurred, the delinquent attacher has no other incentive—barring a lawsuit—to satisfy its outstanding balance with Kentucky Power in a timely fashion. Both of these issues are resolved by replacing the one-time late payment charge with the 1.5% simple monthly interest provision.

b. A late payment charge such as that contemplated by 807 KAR 5:006, Section 9(3)(h) is a *penalty* for failing to timely remit payment. Interest, on the other hand, is intended to compensate the creditor for the time value of money. If the most that could be charged for a late payment is a nominal, one-time charge, then creditors would lose money on delinquent balances.

Witness: Pamela F. Ellis

**DATA REQUEST**

**KPSC 1_06** a. Explain how Kentucky Power estimated the cost of $275 per pole for make-ready surveys, and provide any documentation or analysis supporting the estimate.
a. Explain why the prepayment of make-ready survey costs is discretion, and identify those standards Kentucky Power anticipates applying to determine when and whether to require the prepayment of survey costs.
b. Explain how the discretionary prepayment of make-ready survey costs will be applied in a

**RESPONSE**

a. As explained in Kentucky Power's Response to Objections, Kentucky Power utilizes third-party contractors to perform make-ready surveys. *See* Kentucky Power's Response to Objections at 7-8. The Survey Estimate in Section 6 is designed to capture the average pass-through cost of this work on a per pole basis (plus a 15% surcharge to offset Kentucky Power's administrative costs). Because Kentucky Power's contractors charge on a per-unit basis, the Survey Estimate was calculated using the unit costs for the following make-ready survey inputs: (1) administrative processing costs; (2) field data collection costs; (3) engineering costs; and (4) post-construction inspection costs. The unit cost for engineering varies based on the condition of the pole: (a) a pole that requires no make-ready or other work; (b) a pole that requires rearrangement of existing attachments; and (c) a pole that requires additional work beyond rearrangement. To generate a Survey Estimate that balances and captures each of these components, Kentucky Power averaged the per pole make-ready survey cost for each of the aforementioned pole types based on a 50-pole proposal using the following methodology:

**Where**:

A = per application administrative processing cost
B = unit cost for field data collection
C = unit cost for engineering: pole that requires no work
D = unit cost for engineering: pole that requires rearrangement
E = unit cost for engineering: pole that requires work beyond rearrangement
F = unit cost for post-construction inspection

**And**:

$$X = (A + 50B + 50C + 50F) / 50$$
$$Y = (A + 50B + 50D + 50F) / 50$$
$$Z = (A + 50B + 50E + 50F) / 50$$

**Survey Estimate Equals:**

$$(X + Y + Z) / 3$$

In addition to capturing the pass-through costs charged by Kentucky Power's contractor, the Survey Estimate also includes a surcharge (equal to 15% of the average per pole make-ready survey estimate) designed to cover Kentucky Power's administrative costs, including but not limited to the recurring cost of its Joint Use Portal. The Joint Use Portal is an electronic application and notification platform that streamlines the management of third-party communications attachments on Kentucky Power's poles.

a. The Commission's pole attachment regulation provides:

> a. A utility's tariff may require prepayment of the costs of surveys made to review a pole attachment application, or some other reasonable security or assurance of credit worthiness, before a utility shall be obligated to conduct surveys pursuant to this section.
>
> b. If a utility' tariff requires prepayment of survey costs, the utility shall include a per pole estimate of costs in the utility's tariff and the payment of estimated costs shall satisfy any requirement that survey costs be prepaid.

807 KAR 5:015, Section 4(2)(b)6.a-b. Kentucky Power does not believe that the foregoing language imposes a requirement on Kentucky Power to require prepayment. Instead, the Commission's pole attachment regulation provides Kentucky Power with the discretion to require prepayment for make-ready surveys, and if Kentucky Power chooses to require prepayment, then then Kentucky Power is required to publish a per-pole estimate of make-ready survey costs in its pole attachment tariff. The Revised Tariff complies with this requirement: "Company may, in its sole discretion, require prepayment for a make-ready survey. The current per pole estimate for a make-ready survey is $275." Revised Tariff, P.S.C. KY. NO. 1st REVISED SHEET NO. 16.3, Section 6. Kentucky Power does not anticipate requiring every attaching entity to prepay for make-ready surveys. However, Kentucky Power included the foregoing provision in its Revised Tariff to reserve its right to require prepayment when it receives attachment

requests (1) pertaining to a large buildout, (2) from attaching entities with a history of non-payment, or (3) from new attaching entities for which Kentucky Power has no credit history or evidence of their ability to pay.

b. To the extent applicable, Kentucky Power incorporates by reference its response to Data Request 6.a. *supra* (the 6.a. response immediately above). As explained above, Kentucky Power will exercise its discretion to require prepayment for make-ready surveys in situations where the financial risk of fronting this cost is heightened, such as where the attachment request (1) pertains to a large buildout, (2) is submitted by an attaching entity with a history of non-payment, or (3) is submitted by an attaching entity for which Kentucky Power has no credit history or evidence of its ability to pay.

Witness: Pamela F. Ellis

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_07** a. Identify each account and subaccount in which the costs of utility poles in service are recorded.
b. Provide a narrative description of the costs that are recorded in each such account, including a description of the type and vintage of poles for which costs are recorded in the account and a description other plant, if any, for which costs are recorded in the account.
c. Provide a spreadsheet showing the plant in service balance of each such account at the end of each of the last five fiscal years.

**RESPONSE**

a. Utility poles in service are recorded in accounts 364 (distribution poles) and 355 (transmission poles). Accounts 364 and 355 are also part of accounts 101 (plant in service) and 106 (completed construction not classified).

b. Costs recorded in account 364 include investment in distribution poles, towers, and fixtures. The types of poles for which costs are recorded in account 364 include wood poles, concrete poles, steel poles and iron poles. The vintages of the poles for which costs are recorded in account 364 range from 1963 to 2022. Examples of other types of plant for which costs are recorded in account 364 include crossarms, pole reinforcements, and platforms. Costs recorded in account 355 include investment in transmission poles and fixtures. The types of poles for which costs are recorded in account 355 include wood poles, concrete poles and steel poles. The vintages of the poles for which costs are recorded in account 355 range from 1944 to 2022. Examples of other types of plant for which costs are recorded in account 355 include other fixtures used for supporting transmission conductors such as crossarms, pole reinforcements, platforms, and structure raisers.

c) Please see KPCO_R_KPSC_1_07_Attachment1 for the requested information.

Witness: Jason A. Cash

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_08** a. Identify each account and subaccount in which accumulated depreciation for poles in service is recorded.
b. Provide a narrative description of how the accumulated depreciation in each such account is calculated.
c. Identify the corresponding plant account or accounts for each account in which accumulated depreciation for poles is recorded.
d. Provide a spreadsheet showing the balance of each such account at the end of each of the last five fiscal years.

**RESPONSE**

a. Accumulated depreciation for poles in service is recorded in account 108 (Accumulated Provision for Depreciation of Plant) which includes subaccount 1080011 (Cost of Removal Reserve).

b. Depreciation is calculated monthly based on the prior month ending plant balance + ½ current month transfers. Depreciation rates are approved by a state commission during a rate case and applied to like assets by utility account via a depreciation group. The monthly depreciation rate multiplied by the prior month ending balance + ½ current month transfers determines the amount of depreciation calculated on the assets for the month.

c. Accumulated depreciation for distribution poles is recorded in plant accounting records associated with account 364. Accumulated depreciation for transmission poles is recorded in plant accounting records associated with account 355. The account-specific accumulated depreciation balances are not separately reported on Kentucky Power's Form 1; instead, these amounts are aggregated in account 108 as set forth above in response to Data Request 8.a., *supra*.

d. Please see KPCO_R_KPSC_1_08 Attachment1 for the requested information.

Witness: Jason A. Cash

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_09** a. Identify the depreciation rates currently used to calculate depreciation expense for each account containing utility pole costs.
b. Identify the case in which each such depreciation rate was set.
c. Identify the useful lives of the poles used to calculate each such depreciation rate.

**RESPONSE**

a. Kentucky Power uses the following rates to calculate depreciation expense for distribution poles in account 364: 1.60% (Life Rate) and 1.92% (Cost of Removal Rate). Kentucky Power uses the following rates to calculate depreciation expense of transmission poles in account 355: 1.99% (Life Rate) and 1.96% (Cost of Removal Rate).

b. The depreciation rates identified by Kentucky Power in response to Data Request 9.a. *supra* were set in the following case: *Application of Kentucky Power Company for: (1) A General Adjustment of Its Rates for Electric Service; (2) An Order Approving Its 2014 Environmental Compliance Plan; An Order Approving Its Tariffs and Orders; and (4) An Order Granting All Other Required Approvals and Relief*, Case No. 2014-00396 (filed Dec. 23, 2014).

c. In response to this request, it is assumed that that the term "useful life" means the same as the average service life that was approved in the depreciation study filed with Case No. 2014-00396 to set depreciation rates. The depreciation rate for distribution poles in account 364 uses an average service life of 28 years. The depreciation rate for transmission poles in account 355, uses an average service life of 43 years

Witness: Jason A. Cash

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_10** Identify the total number of distribution poles in Kentucky Power's system, and provide a breakdown of those poles based on the year they were installed.

**RESPONSE**

Kentucky Power has approximately 218,310 distribution poles in the Kentucky Power system. Please see KPCO_R_KPSC_1_10_Attachment1 for the requested vintage information.

Witness: Pamela F. Ellis

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_11** Identify the total number of transmission poles in Kentucky Power's system, and provide a breakdown of those poles based on the year they were installed.

**RESPONSE**

There are approximately 6,790 transmission structures in Kentucky Power's system. Kentucky Power does not have data to identify when the approximately 6,790 transmission structures were initially installed.

Witness: Pamela F. Ellis

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_12** Describe in detail the current plan or policy regarding the inspection and replacement of aging or damaged poles in Kentucky Power's system, and provide a copy of any such plan or policy that has been memorialized in writing.

**RESPONSE**

To satisfy their regulatory inspection obligations under 807 KAR 5:006, Kentucky Power:

> [V]isually inspect[s] all overhead and the external, above ground portions of underground facilities on a 2 year cycle to identify and correct deficiencies necessary for the safety of employees and the public under the conditions specified in the NESC and for system reliability.

AEP-Kentucky Overhead/Underground Circuit Facilities Inspection and Maintenance ("Inspection Plan") at 1. Please see KPCO_R_KPSC_1_012_Attachment1 for a copy of Kentucky Power's Inspection Plan. The overhead component of Kentucky Power's inspections includes, but is not limited to, the following:

> [V]isual inspection[s] of poles (including foreign owned poles with company owned attachments), conductors, and pole-mounted equipment (transformer, regulators, reclosers, capacitors, etc.) and related materials (insulators, brackets, terminations, cutouts, surge arresters, etc.) owned by the company.

*Id*. These inspections are performed on a circuit-by-circuit basis. When a safety or reliability issue is identified on a pole, Kentucky Power documents the issue for corrective action in a detailed map of the circuit being inspected. Kentucky Power then schedules the pole for either repair or replacement, depending on the severity of the defect.

Witness: Pamela F. Ellis

# EXHIBIT 1

**AEP — KENTUCKY**
**OVERHEAD/UNDERGROUND CIRCUIT FACILITIES INSPECTION AND MAINTENANCE**

**Objective:** The objective of this program is to visually inspect all overhead and the external, above ground portions of underground facilities on a 2 year cycle to identify and correct deficiencies necessary for the safety of employees and the public under the conditions specified in the NESC and for system reliability.

**Activities Included In Program for Overhead Facilities:** The program consists of a visual inspection of poles (including foreign owned poles with company owned attachments), conductors, and pole-mounted equipment (transformer, regulators, reclosers, capacitors, etc.) and related materials (insulators, brackets, terminations, cutouts, surge arresters, etc.) owned by the company. It includes inspection of foreign attachments (CATV, telephone, etc.) to the company's poles for any safety related electrical or mechanical defects. Electrical and mechanical defects observed will be identified and the information will be collected so appropriate corrective action can be taken. Driving or foot patrol inspections are conducted as appropriate looking for obvious defects such as loose down guys, broken grounds, cracked insulators, lightning arresters with blown isolators, deteriorated crossarms having inadequate strength, and NESC minimum vertical and horizontal conductor clearance issues.

**Activities Included In Program for Underground Facilities:** The program consists of an external, visual inspection of the above ground portion of underground systems including pad-mounted equipment (transformers, switches, primary metering enclosures, junction cabinets, etc.), pedestals and the underground associated components of primary riser poles. The program also includes the visual inspection of company owned outdoor lights and light poles fed from underground systems in URD developments and similar installations. The external inspection will be conducted to determine that the equipment is locked and secure and that there are no open appurtenances that might allow access to the interior of the equipment via soil erosion, cabinet or conduit deterioration or by other means such as vandalism. Oil filled equipment is also checked for any external leaks. Any defects observed that need attention will be identified and the information will be collected so appropriate corrective action can be taken.

**Inspection/Collection**

AEP personnel and contractors inspect and maintain overhead and underground facilities as a part of the 2 year cycle for the examination of distribution assets to identify defects and areas requiring attention. The Distribution Region and/or District/Areas identify the circuits to be included in the current year program based on inspection and operating history. Detail circuit maps are provided as needed by graphics personnel to be used for the inspection program which also allows for any field corrections to be documented for

follow up. A listing of items to be checked as a part of this inspection is on the attached page 3.

**How The Program Fits Into Overall Operations and Maintenance Plans:**

This program is designed to proactively identify defects involving company owned overhead and above ground portions of underground facilities so that appropriate action can be taken to reduce the possibility of an accident or correct a condition that would adversely affect system operation. The corrective actions taken are to include necessary maintenance and replacement as a part of this program. If defects should be discovered that pose a safety risk, then timely corrective action by qualified personnel is required. In rare instances the inspector may be required to guard the site of a safety hazard until qualified personnel arrive to correct the hazard. Defects involving foreign owned facilities are to be reported to the owner for correction. However, in some situations action may be required on the company's part to correct a safety hazard involving foreign owned facilities.

**Maintenance**

Maintenance activities are identified during the inspection process and in some cases are done in conjunction with the inspection. Some of these type activities would include the replacement of property ownership tags or structure location tags, tightening of pole down guys, replacement of lock(s) for underground equipment, etc. Otherwise, the local area office schedules follow up work as appropriate.

**Records/Reporting**

Circuit inspection results are maintained at the Region/District/Area office. This documentation includes what if any follow up action was required and when the follow up action was completed.

## Kentucky PSC Inspections

In the interest of public safety, to limit our liability, and to comply with PSC requirements, a periodic and systematic inspection of all our facilities is necessary.

The following are the general guidelines for what to look for as a part of this inspection:

* Condition of pole:
  - Rotten
  - Leaning or Washed out
  - Burned
  - Broken / split
  - Other

* Condition of crossarm and crossarm braces
  - Broken / split
  - Other

* Pole ground intact
  - Broken / missing ground wire molding
  - Loose connections

* Hardware damaged
  - Lightning arrester
  - Cutout
  - Insulators

* Guys and anchors
  - Loose
  - Damaged
  - Need insulator / breaker / marker

* Transformers / Other Equipment
  - Unused
  - Overloaded
  - Leaking
  - Damaged

* Conductors
  - Proper NESC vertical and horizontal clearance of primary, secondary and service conductors
  - Unused or abandon primary, secondary and service conductors.

- Services Drop Clearances and Blanked Meter Bases
- Damaged — broken strands
- Excessive splices

- Loose tie wire

*Attachments

- Clearance issues

* Pole tags

- Damaged / missing

Report immediately any hazardous conditions that could endanger life or property, or would cause an outage.

**DATA REQUEST**

**KPSC 1_13** State whether new attachers will be subsidizing other utility customers by paying the full cost to replace a utility pole that is not a red-tagged pole when the replacement pole has a longer useful life than the pole that is replaced, and explain each basis for the response.

**RESPONSE**

No. There is no subsidy to the utility customers unless the utility customers—present or future—receive a non-speculative economic benefit from the make-ready pole replacement. Unless a make-ready pole replacement happens to coincide with plans for infrastructure improvement, a make-ready pole replacement provides no benefit at all to utility customers. Further, any potential future benefit to utility customers occasioned by a make-ready pole replacement is too speculative to be meaningful. First, some poles will never be replaced in the ordinary course and will, instead, be removed from service as part of an undergrounding project prior to the end of their useful lives. Within this context, the "longer useful life" of the replacement pole is of no benefit to Kentucky Power or its ratepayers. Second, it is impossible to know at the time of a make-ready pole replacement what type of pole Kentucky Power's electric service needs would require at the time the existing pole would have otherwise been replaced for purposes of electric service. If, at the time the existing pole would have otherwise been replaced, Kentucky Power's electric service needs would require a taller or stronger pole than the replacement pole, then the replacement pole installed in the past to accommodate the new attachment would be of no use or benefit to Kentucky Power or its ratepayers. Kentucky Power addressed this issue at length in its reply comments in the underlying rulemaking proceedings. *See* Kentucky Power's Reply Comments at 9-10 (Oct. 19, 2020). The Commission also addressed this issue at length in its Statement of Consideration:

> The amendment proposed by KBCA could result in electric rates that are not fair, just and reasonable. When reviewing utility rates and charges to determine if they are fair, just and reasonable and otherwise comply with statutory requirements imposed by KRS Chapter 278, the Commission generally attempts to ensure that costs are assigned to the party responsible for causing the utility to incur the cost. If a utility must replace a pole that does not need to be replaced with a larger pole or a pole of a different type to accommodate a new attachment, then the cost to replace that pole is caused by the new attacher.
>
> Other utility customers may eventually benefit from the installation of the new pole installed to accommodate a new attacher as alleged by KBCA, but only to the

> extent the new pole adds useful life. For instance, if a new pole has a 50-year life and the pole that was replaced had a 30 year remaining useful life, then other customers may get the benefit of 20 additional years of life that were paid for by the new attacher. However, in 30 years, the relevant pole may not be necessary such that other customers would not receive any benefit from the new pole installed to accommodate the new attacher's equipment. Further, depending on the age of the pole being replaced and the types of poles involved, it is possible that a new pole of a different type necessary to accommodate a new attacher may not actually have a longer life than the existing pole.

Statement of Consideration Relating to 807 KAR 5:015 at 47. Thus, if utility customers bear the make-ready cost of replacing a pole that it not red-tagged, the utility customers would be subsidizing the new attachers.

Witness: Pamela F. Ellis

Kentucky Power Company
KPSC Case No. 2022-00105
Commission's Staff First Set of Data Request
Dated April 21, 2022

**DATA REQUEST**

**KPSC 1_14** Explain how it would affect capital planning and the ability to complete other necessary projects if Kentucky Power were required to cover the cost of every pole that had to be replaced to accommodate a new attacher less the undepreciated value of the pole being replaced.

**RESPONSE**

It costs Kentucky Power, on average, $5,780.17 to perform a make-ready pole replacement. If Kentucky Power were only permitted to recover the "undepreciated value of the pole being replaced" (which Kentucky Power understands to be the net bare per pole cost—i.e. gross bare pole cost minus accumulated depreciation minus deferred taxes minus appurtenance factor) then Kentucky Power could only recover, on average, $535.78 for a make-ready pole replacement. The cost allocation formula set forth above would shift approximately 93% of make-ready pole replacement costs from attaching entities to Kentucky Power and its ratepayers. Depending on the number of make-ready pole replacements requested in a given year, this massive shift in make-ready pole replacement costs could have a sizeable impact on Kentucky Power's budget and divert capital dollars from core service needs and priorities. This is especially true given the unpredictable nature of make-ready pole replacements—*i.e.*, Kentucky Power does not receive advance notice of make-ready pole replacements (let alone enough notice to incorporate into a budget, which is prepared no later than the preceding year) and only learns of a proposed pole replacement when an attaching entity submits its application. In other words, there is no way for Kentucky Power to budget for make-ready pole replacements, and this existing problem would be greatly exacerbated if Kentucky Power were required to bear the vast majority of their cost. This problem is also proportional to its size. For example, though the cost of ten (10) unbudgeted pole replacements may not have significant impact, the cost of one thousand (1,000) unbudgeted pole replacements would have a significant impact.

Witness: Pamela F. Ellis

**DATA REQUEST**

**KPSC 1_15** Describe in detail the issues with pole loading that could arise from overlashing, including how wind and ice could affect pole loading, and explain the technical bases for such issues.

**RESPONSE**

The potential pole loading issues associated with overlashing are measured against Kentucky Power's design criteria, which meet or exceed the requirements of the National Electrical Safety Code. The basic physical loads imposed by a conductor or cable strung from pole to pole are: (1) a vertical load (toward the earth); and (2) a horizontal load (toward the horizon). The vertical load imposed by a cable or conductor on a structure is the summation of: (a) the weight of the conductor; (b) the vertical component of the tension in the conductor or cable when the ground level is anything other than perfectly flat; and (c) either (i) the ice loading as required by the NESC Rule 250B or 250D as required based on location or (ii) as required by the Kentucky Power design criteria. When an additional cable is overlashed onto an existing messenger/strand cable: (1) the weight of the bundle increases; (2) the tension in the supporting messenger/strand increases; (3) and the diameter of the overall cable increases. Further, the design analysis ice load increases with the increased diameter of the overall cable. All of these changes must be taken into account not only for the sag of the cable to maintain sufficient clearance from other objects per NESC rules but also to verify that the loading on the supporting structure has not exceeded Kentucky Power design criteria or NESC requirements.

The horizontal loads imposed by a new or additional cable or conductor on the supporting structures are the summation of: (1) the horizontal component of the conductor or cable tensions for any angle (2) and wind load imparted by the requirements of the Kentucky Power design criteria and NESC Rules 250B, 250C or 250D, as applicable, on the conductor and or cable considering any required ice loading. As set forth above, when an additional cable is overlashed onto an existing messenger/strand cable: (a) the tension in the supporting messenger/strand increases; (b) the diameter of the overall cable increases; (c) the required design analysis for ice load increases with the increased diameter of the overall cable. The wind load determined in accordance with Kentucky Power's design criteria and NESC Rules 250B, 250C and 250D, as applicable, is applied to the surface of the conductor (i.e., the apparent diameter of the conductor and accumulated ice). As the apparent diameter of the conductor increases, the wind load on the conductor also increases, thus increasing the loading on the structure to which it is attached as well. All of these variables increase the horizontal loads on the supporting structures, and therefore

all of these variables must be analyzed to verify that the structure still meets NESC requirements and Kentucky Power design criteria.

Witness: Pamela F. Ellis

# KY Discovery Verification - Cash.docx

| | |
|---|---|
| DocVerify ID: | AE84B757-243F-4DB0-8D3F-76CD13F9C171 |
| Created: | May 04, 2022 04:57:22 -8:00 |
| Pages: | 1 |
| Remote Notary: | Yes / State: KY |

This document is a DocVerify VeriVaulted protected version of the document named above. It was created by a notary or on the behalf of a notary, and it is also a DocVerify E-Sign document, which means this document was created for the purposes of Electronic Signatures and/or Electronic Notary. Tampered or altered documents can be easily verified and validated with the DocVerify veriCheck system. This remote online notarization involved the use of communication technology.

Go to www.docverify.com at any time to verify or validate the authenticity and integrity of this or any other DocVerify VeriVaulted document.

## E-Signature Summary

**E-Signature 1: Jason Cash (JAC)**
May 04, 2022 05:36:00 -8:00 [D005019D123F] [167.239.221.102]
jacash@aep.com (Principal) (Personally Known)

**E-Signature Notary: Jennifer Young (JAY)**
May 04, 2022 05:36:00 -8:00 [658D5516E219] [167.239.221.103]
jayoung1@aep.com
I, Jennifer Young, did witness the participants named above electronically sign this document.

VERIFICATION

The undersigned, Jason A. Cash, being duly sworn, deposes and says he is Director- Regulatory Accounting Services for American Electric Power Service Corporation that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Jason Cash
Signed on 2022/05/04 05:36:00 -8:00

Jason A. Cash

Commonwealth of Kentucky )
) Case No. 2022-00105
COUNTY OF BOYD )

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Jason A. Cash, this __4th__ day of May 2022.

**JENNIFER A. YOUNG**
ONLINE NOTARY PUBLIC
STATE AT LARGE KENTUCKY
**Commission # KYNP31964**
My Commission Expires Jun 21, 2025
Notary Stamp 2022/05/04 05:36:00 PST 658D5516E219

Signed on 2022/05/04 05:36:00 -8:00

Notary Public

Notarial act performed by audio-visual communication

Notary ID Number: __KYNP31964_____

My Commission Expires: __6/21/2025_____

# KY Discovery Verification - Ellis.docx

| | |
|---|---|
| DocVerify ID: | 328BDBF3-D4FE-4352-AE20-6B6D1A7792E5 |
| Created: | May 03, 2022 12:12:30 -8:00 |
| Pages: | 1 |
| Remote Notary: | Yes / State: KY |

This document is a DocVerify VeriVaulted protected version of the document named above. It was created by a notary or on the behalf of a notary, and it is also a DocVerify E-Sign document, which means this document was created for the purposes of Electronic Signatures and/or Electronic Notary. Tampered or altered documents can be easily verified and validated with the DocVerify veriCheck system. This remote online notarization involved the use of communication technology.

Go to www.docverify.com at any time to verify or validate the authenticity and integrity of this or any other DocVerify VeriVaulted document.

## E-Signature Summary

**E-Signature 1: Pamela F Ellis (PFE)**
May 04, 2022 05:18:43 -8:00 [169B3D790E32] [167.239.221.101]
pfellis@aep.com (Principal) (Personally Known)

**E-Signature Notary: Jennifer Young (JAY)**
May 04, 2022 05:18:43 -8:00 [D759581E3EDA] [167.239.221.103]
jayoung1@aep.com
I, Jennifer Young, did witness the participants named above electronically sign this document.

VERIFICATION

The undersigned, Pam Ellis, being duly sworn, deposes and says she is Director- Energy Delivery Engineering Services for American Electric Power Service Corporation that she has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of her information, knowledge and belief after reasonable inquiry.

Pamela F Ellis
Signed on 2022/05/04 05:18:43 -8:00

Pam Ellis

Commonwealth of Kentucky )
) Case No. 2022-00105
County of Boyd )

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Pam Eliis, this _4th__ day of May 2022.

**JENNIFER A. YOUNG**
ONLINE NOTARY PUBLIC
STATE AT LARGE KENTUCKY
**Commission # KYNP31964**
My Commission Expires Jun 21, 2025
Notary Stamp 2022/05/04 05:18:43 PST D759581E3EDA

Signed on 2022/05/04 05:18:43 -8:00

Notary Public

Notary ID Number: ___KYNP31964_____

Notarial act performed by audio-visual communication

My Commission Expires: ___6/21/2025_____