DATA REQUEST

KPSC 2_1 Explain in detail all of the different inspection processes for Kentucky Power's transmission system, including but not limited to poles (wood and steel), lines, transformers, substation equipment, and all other equipment. Identify whether an outside contractor or Kentucky Power personnel conduct the different inspections, or to what extent a combination of each is used.
a. By circuit, for each year beginning in 2019 to the present, provide the inspection report for each transmission system related inspection.
b. For each inspection report, explain what actions were taken or initiated to address each report finding.
c. For each year beginning in 2020 to the present, provide the annual Kentucky Power five-year capital work plan and capital budget, including O&M costs as related to transmission projects. Identify any changes between the plans by year and explain why the changes were made.

RESPONSE

Please see KPCO_R_KPSC_2_1_Attachment1 and KPCO_R_KPSC_2_1_Attachment2 for descriptions of Transmission Substation and Transmission Line Inspection processes, respectively. All inspections are completed by Company personnel.

a. Please see KPCO_R_KPSC_2_1_Attachment3 for Transmission Substation inspection data, and KPCO_R_KPSC_2_1_Attachment4 for Transmission Line inspection data. The Company notes that Commission Staff regularly periodically reviews this data in the normal course of its oversight of the Company's operations.

For the Transmission Substation inspection data in KPCO_R_KPSC_2_1_Attachment3, this information is in the "2019-Pres Station Inspections" tab.

For the Transmission Line inspection data in KPCO_R_KPSC_2_1_Attachment4, this information is in the "Clearion_Comp_Inspection Detail," "IT IS_Comp_Inpsection_Detail," "Clearion Aerial by STR," and "IT IS Aerial by STR" tabs.

The Company notes that it changed the system it utilizes for Transmission Line inspection data, which is reflected in KPCO_R_KPSC_2_1_Attachment4: ITIS was

utilized from 2019 through a small portion of 2023, after which the Company changed to Clearion.

b. This information is provided in KPCO_R_KPSC_2_1 Attachment3 for Transmission Substation inspection data, and KPCO_R_KPSC_2_1 Attachment4 for Transmission Line inspection data.

For the Transmission Substation inspection data in KPCO_R_KPSC_2_1 Attachment3, this information is in the "Malfunction Action Report" tab.

For the Transmission Line inspection data in KPCO_R_KPSC_2_1 Attachment4, this information is in the "Clearion Conditions Detail-All" and "IT IS Conditions - Completed" tabs.

c. Please see the table below for the Company's five-year transmission capital forecasts developed in 2020-2023. Each of the forecasts below was prepared in the third quarter of the indicated year. The Company's five-year forecasts evolve and are updated over time to reflect changing circumstances, operational needs, and regulatory decisions.

2020 5-year forecast	2020	2021	2022	2023	2024	Total
	$91M	$64M	$72M	$78M	$70M	$375M
2021 5-year forecast	2021	2022	2023	2024	2025	Total
	$65M	$76M	$80M	$93M	$104M	$418M
2022 5-year forecast	2022	2023	2024	2025	2026	Total
	$81M	$28M	$47M	$27M	$76M	$259M
2023 5-year forecast	2023	2024	2025	2026	2027	Total
	$74M	$92M	$70M	$61M	$62M	$359M

The Company does not track variance data beyond the first year of the five-year forecast as the forecast information becomes more speculative the further away from the first year the Company forecasts. Please see the chart below, which shows the difference in budgeted and allocated transmission capital for 2020-2023. The differences between budgeted and allocated capital in a given year are largely the result of the timing of execution of capital projects.

2020 Budget	2021 Budget	2022 Budget	2023 Budget
$ 91	$ 65	$ 81	$ 74
2020 Allocated	**2021 Allocated**	**2022 Allocated**	**2023 Allocated**
$ 30	$ 63	$ 61	$ 61
2020 Variance	**2021 Variance**	**2022 Variance**	**2023 Variance**
$ (61)	$ (2)	$ (20)	$ (13)

The $61 million variance in 2020 was largely the result of the Company having to file a second application for a certificate of public convenience and necessity ("CPCN") for the supplemental portions of the Hazard-Wooten transmission line project and the delays that resulted. The delay in receipt of the CPCN and construction of that project resulted in multiple related projects also being delayed into future years. Additionally, a portion of the 2020 variance was the result of a delay to the Middlecreek battery project after the Company received guidance from FERC that the proposed battery asset would not be considered a transmission asset.

The $2 million variance in 2021 was the result of refined cost estimates for certain telecom and forestry activities planned for 2021.

In 2022, the Company experienced various material delays and lack of crew/contractor availability as a result of the COVID-19 pandemic. As a result, multiple transmission projects planned for 2022 were delayed and removed from the control budget.

Finally, the variance in 2023 was largely due to delays in securing ROW rights for multiple projects, which resulted in delaying those projects out of 2023 into future years.

Witness: Stephen D. Blankenship

Witness: Brian K. West (as to subpart c)

Kentucky Power Company – Substation Inspection Programs

Substation: Station Inspections

Objective:

The objectives of this maintenance program are to:

- Prevent unplanned outages or failures and/or safety hazards by identifying and correcting problems during scheduled inspections; and
- Reduce customer outages and associated call-outs for station problems by detecting problems and correcting them in a timely manner.

Program Details:

The Station Inspection Program is critical to the reliable and safe operation of both transmission and distribution substations. It provides the necessary information and data concerning the operation and condition of each piece of electrical equipment in the substation in order to properly plan and schedule maintenance. Substation inspections provide a means to keep control systems and relay protection serviceable. Substation assets such as fences, buildings, and grounding are checked as part of a Station Inspection Program to make sure the substation is secure and to ensure the Safety of the Public. The Station Inspection program is only applicable to in service facilities and equipment.

Station Inspections consists of tasks performed during the manual inspection and further includes data collection. For many pieces of station equipment, portions of this data may be available via SCADA dependent on SCADA availability. Station metering equipment monitors current flow, bus voltages, and power loadings on high voltage equipment. Circuit Breakers, Load Tap Changers, Voltage Regulators, and other Switchgear utilize counters to register the number of operations that have occurred and are used to analyze automatic operations. Any serious condition is immediately reported to maintenance personnel.

Substation: Circuit Breakers and Reclosers

Objective

The objectives of this maintenance program are to:

- prevent misoperations or failures by identifying and correcting problems during scheduled inspections; and
- reduce safety hazards, customer outages and associated call-outs for circuit breaker problems by replacing limited lifetime components in a timely manner.

Program Details

Reliable operation of circuit breakers and reclosers requires that all components of these devices be in serviceable condition. These devices have a large number of mechanical parts that require special attention. The maintenance program for circuit breakers and reclosers includes procedures that provide for monitoring, testing and planned maintenance to assure the integrity of these components and the overall performance of the circuit breaker.

Circuit breakers and reclosers have counters that register the number of open/close operations that have occurred. The Station Inspection identifies any external problems or problems with low levels of SF_6 gas or oil. The bushings are also inspected. Any problems are noted on the inspection report and any serious condition is immediately reported to maintenance personnel. Additionally, Station Inspection is used to check for any external problems, bushing damage, or oil leaks.

Substation: Transformers

Objective

The objectives of this maintenance program are to:

- prevent unplanned outages or failures by identifying and correcting problems during scheduled inspections;
- reduce safety hazards, customer outages and associated call-outs for transformer problems by replacing limited lifetime components in a timely manner; and
- utilize best practices and technology to achieve optimum loading of all transformers

Program Details

Reliable operation of transformers requires that all components of these devices be in serviceable condition. These devices have a number of mechanical and electrical parts that require special attention. The maintenance program for transformers includes procedures that provide for monitoring, testing and planned maintenance to assure the integrity of these components and the overall performance of the transformers.

Transformers have temperature indicators located on the transformer tank to measure insulating fluid and winding temperatures. In addition, transformers are equipped with ammeters and wattmeters to measure loadings. Transformers with Load Tap Changers (LTC's) also have counters that register the number of tap changing operations that have occurred. The Station Inspection identifies any external problems or problems such as low levels of insulating fluid. The bushings are also inspected. Any problems are noted on the inspection report and any serious condition is immediately reported to maintenance personnel. Additionally, Station Inspection is used to check for any external problems, bushing damage, or oil leaks.

Substation: Voltage Regulators

Objective

The objectives of this maintenance program are to:

- prevent unplanned outages or failures by identifying and correcting problems during scheduled inspections; and
- reduce safety hazards, customer outages and associated call-outs for voltage regulator problems by replacing limited lifetime components in a timely manner

Program Details

Reliable operation of voltage regulators requires that all components of these devices be in serviceable condition. These devices have a number of mechanical and electrical parts that require special attention. The maintenance program for voltage regulators includes procedures that provide for testing and planned maintenance to assure the integrity of these components and the overall performance of the voltage regulators.

Voltage regulators have counters that register the number of tap changing operations that have occurred. The Station Inspection identifies any external problems or problems with low levels of insulating fluid. The bushings are also inspected. Any problems are noted on the inspection report and any serious condition is immediately reported to maintenance personnel. Additionally, Station Inspection is used to check for any external problems, bushing damage, or oil leaks.

Substation: Capacitor Banks

Objective

The objectives of this maintenance program are to:

- prevent unplanned outages or failures by identifying and correcting problems during scheduled inspections; and
- reduce safety hazards, customer outages and associated call-outs for capacitor bank problems by replacing limited lifetime components in a timely manner

Program Details

Reliable operation of capacitor banks requires that all components of these devices and their associated switchgear are in serviceable condition. These devices have relatively few mechanical parts that require special attention. The maintenance program for capacitor banks includes procedures that provide for testing and planned maintenance to assume the integrity of these components and the overall performance of the capacitor bank.

Switchgear for capacitor banks have counters that register the number of switch operations that have occurred. During the Station Inspections, station capacitor banks are visually checked for blown fuses, deformed or ruptured capacitor units. The support insulators and switchgear bushings are also inspected. Any problems are noted on the inspection report and any serious condition is immediately reported to maintenance personnel. Additionally, as part of the Station Inspection, capacitor banks are visually checked for external damage.

Substation: Protection and Control

Objective

Protection System elements continually monitor the power system and protect lines and station equipment from damage by isolating those facilities from system disturbances. These sophisticated Protection Systems are designed to minimize the number of customer outages, safety issues and pieces of equipment affected. Maintenance is an ongoing program by which Protection System function is proven, and restored, if needed, with the goal of preventing misoperation or failures of station equipment; minimizing customer outages; minimizing maintenance call-outs and maximizing the life of station equipment. This program is structured to comply with requirements of NERC Reliability Standards: PRC-005-6, PRC-008-0, PRC-011-0 and PRC-017-0.

Program Details

Protection System elements are calibrated on a regular schedule for operating accuracy as well as a functional test of the trip control circuits. The newest generation of microprocessor relays has self-checking features which trigger an alarm when a failure is detected.

Protective Communications Systems are inspected monthly as part of the overall Station Inspections to ensure the integrity of the communications channels. In addition, the Station Inspections also include checking for any alarms on protection equipment.

AEP Transmission - Kentucky
Overhead Periodic Inspection Program
October 27, 2021

The following program is for transmission and sub-transmission line assets, located within the State of Kentucky, with voltages ranging from 34.5kV to 765kV.

Inspection and maintenance of AEP's transmission and sub-transmission system assures that the lines provide optimum service and reliability to our customers. Periodic line inspections allow T-Line personnel to observe and report the present physical condition of the transmission line and right-of-way. AEP's transmission inspection program ensures that each transmission line inspection is performed in a uniform and consistent manner so that a fair evaluation is given to each transmission line throughout the entire AEP Transmission System.

Inspections of all types provide information on the general condition of the transmission system, in addition to indicating equipment or areas requiring immediate corrective action. Items found during routine inspection that appear to require urgent attention are scheduled as soon as possible for repair. Inspections can also reveal certain trends, such as increasing structure or hardware deterioration, which allows for future planning, budgeting and scheduling of resources to remedy the situation. Inspections, combined with follow-up corrective maintenance, provide a safe environment for the public and company personnel and maintain system reliability.

Routine Aerial Inspection

Routine aerial inspections of the transmission lines are performed at intervals not to exceed six (6) months. These patrols are used to identify potentially severe conditions associated with a line and its right-of-way that may affect the performance of the circuit. This inspection shall be performed from a helicopter, fixed-wing aircraft, or unmanned aircraft system. In locations where aerial inspections are prohibitive, an alternate method of inspection shall be substituted.

Inspect the company line at a macro level, which should include the following items:

- Major line components; e.g., broken cross arms or braces, missing members, excessive decay
- Vegetation encroaching upon conductor/structures
- Right-of-way encroachments – Locations of Concern (LOCs)
- Land use (surrounding right-of-way) changes or incompatibilities with the electric line operation
- Foundation and land stability, major problems or changes

Comprehensive Ground Inspection

Comprehensive ground inspections are scheduled on a cyclical basis. These inspections focus on the details of the components of a transmission line and could identify physical conditions that are not outage related, but that need attention. This is intended to be detailed inspection of the right-of-way and of each structure and span, specifically the hardware, insulators, structural members, conductors, dampers, spacers, etc.

- Wood Structures < 69 kV completed once every 2 years
- All other Wood Structures completed once every 6 years
- Non-Wood Structures completed once every 12 years

The right-of-way should be inspected for encroachments due to non-compatible vegetation, buildings, other above-grade obstructions, and land use (swimming pools, ponds, storm water detention areas, etc.). Land stability issues should also be identified. Identified conditions should be reported.

Structural defects, hardware defects, conductor and conductor accessory defects, insulation defects, grounding system defects, foundation instability, and erosion should be identified and reported. If a structure is not climbed, inspection of above-grade components should be performed with binoculars or other suitable method.

If transmission management or the transmission inspector requires a more detailed inspection of a structure, hardware conductors, or conductor accessories, the structure may be climbed or a comprehensive aerial inspection may be conducted. A routine ground-based inspections may be complemented by, or supplemented by, a comprehensive aerial inspection.

Emergency Patrol

Emergency patrols are performed as needed. This patrol type is typically prompted by unplanned events, such as Transmission line operation problems, storms, outages, etc.

Emergency patrols may be performed via unmanned aircraft system, from an aircraft, by walking, by driving, or some combination thereof, as needed to identify line defects.

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_2 Refer to Kentucky Power's Response to Commission Staff's Second Request for Information (Staff's Second Request), Item 20, in Case No. 2023-00159.
a. Explain in detail all the different inspection processes for Kentucky Power's distribution system, including but not limited to poles (wood and steel), lines, transformers, substation equipment (including but not limited to the Capacitor and Regulator Inspection Maintenance Program, the Recloser Maintenance/Replacement Program, the Overhead Conductor Program), and all other equipment.
b. Identify whether an outside contractor or Kentucky Power personnel conduct the different inspections or to what extent a combination of the two is used.

RESPONSE

a. Please see KPCO_R_KPSC_2_2_Attachment1 for the requested information.

b. All inspections are completed by Company personnel.

Witness: Stephen D. Blankenship

AEP — KENTUCKY DISTRIBUTION INSPECTION PROCESSES

I. OVERHEAD/UNDERGROUND CIRCUIT FACILITIES INSPECTIONS

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, as well as to comply with PSC requirements.

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

Company 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 circuits inspected are based on an equitable split of the overall circuit mileages over the 2-year cycle. Inspectors use electronic circuit maps for the inspection program. The inspectors report defects found during the inspection through an application on an iPad linked to a vendor based cloud database. Defects reported are on a real time basis and recorded by location number,station/circuit, overhead or underground, type of defect, pole owner, work type, date and time, address, Lat. /Lon, comments and pictures when applicable.

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 incident 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 are 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 in the electronic data base application for the Region/District/Area offices. Generated reports of defects found are accessed by personnel for review and remediation.

II. RECLOSER MAINTENANCE / REPLACEMENT

Objective: The recloser maintenance program is to visually inspect all reclosers to identify and correct deficiencies necessary for system reliability on an annual basis. Hydraulic reclosers are visually inspected in conjunction with our Circuit inspection program by circuit. Electronic reclosers are inspected twice annually. Batteries are tested to insure availability of the device in the case of an interruption.

Activities Included In Program: The Recloser Replacement program is based upon the type of recloser (hydraulic or vacuum interruption), number of operations and duty cycle and as such this cycle can vary from Operating Unit to Operating Unit and from circuit to circuit. The Company is transitioning away from oil interrupting hydraulic units to oil-insulated vacuum and solid dielectric units, older hydraulic units are targeted for replacement with new vacuum units.

III. OVERHEAD CONDUCTOR MAINTENANCE

Objective: The objective of this portion of the program is to correct primary and secondary conductor deficiencies by replacing deteriorated sections of primary overhead conductor and deteriorated secondary conductors in order to maintain system safety and reliability.

Activities Included In Program: This is a condition-based program. This program is designed to proactively identify deteriorated sections of overhead primary conductors and deteriorated secondary conductors so that appropriate action can be taken to reduce the possibility of an accident or correct a condition that would adversely affect system operation. Line sections are reported during our biannual circuit inspection program. Further analysis is also used based upon age, condition, and reliability history to pinpoint sections of deteriorated conductor. The deteriorated sections are prioritized as to condition and the sections needing attention first are targeted for this replacement program.

IV. CAPACITOR AND REGULATOR INSPECTION & MAINTENANCE PROGRAM

Objective: The objective of this program is to inspect all capacitor banks for proper operation on an annual basis. Switched capacitor banks are visually inspected and operated. Fixed capacitor banks are visually inspected. Regulators are visually inspected and operated annually.

Activities Included In Program: This program consists of a visual inspection of capacitor bank components that could impact or have impacted proper bank operation, the identification and documentation of observed deficiencies and the necessary maintenance/replacement actions to restore the capacitor bank to normal operation. The visual inspection includes such items as checking for blown primary fuses, blown lightning arresters, bulging or leaking capacitor unit cans or oil/vacuum switches and the control operations counter. Deficiencies are corrected as necessary for system reliability to include emphasis on capacitor bank availability during the summer and winter peak loading seasons.

Regulators are visually inspected and operated annually. Deficiencies are corrected as necessary for system reliability to include emphasis on maintaining proper voltages.

DATA REQUEST

KPSC 2_3 By circuit for each year beginning in 2019 to the present, provide the inspection report for each distribution system related inspection.
a. For each inspection report, explain what actions were taken or initiated to address each report finding.
b. For each year beginning in 2020 to the present, provide the annual Kentucky Power five-year capital work plan and capital budget, including O&M costs as related to distribution projects. Identify any changes between the plans by year, and explain why the changes were made.

RESPONSE

a. Please see KPCO_R_KPSC_2_3_Attachment1 for the requested information.

b. Please see the table below for the Company's five-year distribution capital forecasts developed in 2020-2023. Each of the forecasts below was prepared in the third quarter of the indicated year. The Company's five-year forecasts evolve and are updated over time to reflect changing circumstances, operational needs, and regulatory decisions.

2020 5-year forecast	2020	2021	2022	2023	2024	Total
	$61M	$57M	$45M	$42M	$40M	$245M
2021 5-year forecast	2021	2022	2023	2024	2025	Total
	$66M	$61M	$54M	$52M	$72M	$298M
2022 5-year forecast	2022	2023	2024	2025	2026	Total
	$61M	$51M	$47M	$66M	$66M	$291M
2023 5-year forecast	2023	2024	2025	2026	2027	Total
	$63M	$66M	$70M	$80M	$82M	$361M

The Company does not track variance data beyond the first year of the five-year forecast as the forecast information becomes more speculative the further away from the first year the Company forecasts. Please see the chart below, which compares the annual distribution capital budgets to allocated distribution capital for 2020-2023 and demonstrates that in each of the years in question, the Company was allocated additional distribution capital than it anticipated in the given years.

2020 Budget	2021 Budget	2022 Budget	2023 Budget
$ 60.3	$ 58.8	$ 63.7	$ 62.6
2020 Allocated	**2021 Allocated**	**2022 Allocated**	**2023 Allocated**
$ 66.5	$ 69	$ 94.5	$ 80
2020 Variance	**2021 Variance**	**2022 Variance**	**2023 Variance**
$ 6.1	$ 10.2	$ 30.8	$ 17.4

In 2020, Kentucky was allocated approximately $6.1 million in an additional distribution capital to support local distribution asset improvement projects.

The 2021, an additional $10.2 million was made available to the Company to cover the capital cost of storm damage restoration.

In 2022, the Company was provided approximately $30.8 million additional capital to support a variety of distribution work streams, including new customer work and customer upgrades, substation improvement projects, distribution line work, minor storm restoration, and buying out certain capital leases.

Similar to 2022, the Company was allocated approximately $17.4 million in additional capital to support a variety of distribution projects, including new customer work and customer upgrades, substation improvement projects, distribution line work and certain make-ready projects for third parties.

Witness: Stephen D. Blankenship

Witness: Brian K. West (as to subpart b)

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_4 Provide a status update on the Mitchell Unit 1 outage referenced in the summary report filed on January 4, 2024.

RESPONSE

Mitchell Unit 1 returned to service on January 28, 2024.

Witness: Timothy C. Kerns

DATA REQUEST

KPSC 2_5 Refer to Kentucky Power's Response to Commission Staff's First Request for Information (Staff's First Request), Item 6. Also refer to Case No. 2023-00159, the Direct Testimony of Cynthia G. Wiseman, page 12; the Direct Testimony of Brian K. West (West Direct Testimony), page 18; Brian K. West's Hearing Video Testimony (HVT) of the November 28, 2023 through November 30, 2023 Hearing, on November 28, 2023, at 3:07:07–3:07-31; and Kentucky Power's Post-Hearing Brief, footnote 154 at 33.
a. Identify the amount of dividend each year for the last ten years that Kentucky Power has provided to AEP. Identify the years for which Kentucky Power has not provided a dividend to AEP.
b. For each of beginning in 2013, state whether Kentucky Power has received less capital to undertake distribution projects and improve reliability and service from AEP than Kentucky Power requested from AEP, quantify the requested amount versus the amount received, and provide the feedback received by Kentucky Power from AEP supporting AEP's funding decision.

RESPONSE

a.

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
$20.034M	$115M	$44M	$44M	$35M	-	$5M	-	-	-	-

b. Kentucky Power has consistently received sufficient capital from AEP to maintain its distribution reliability and performance.

Below is a table summarizing showing the capital requested vs allocated to the Company for the years 2013-2023.

2013 Budget	2014 Budget	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget	2023 Budget	Total
$44M	$41M	$39M	$39M	$36M	$59M	$77M	$60M	$59M	$64M	$63M	$581M
2013 Allocated	**2014 Allocated**	**2015 Allocated**	**2016 Allocated**	**2017 Allocated**	**2018 Allocated**	**2019 Allocated**	**2020 Allocated**	**2021 Allocated**	**2022 Allocated**	**2023 Allocated**	**Total**
$46M	$39M	$39M	$36M	$40M	$58M	$73M	$67M	$69M	$95M	$80M	$642M
2013 Variance	**2014 Variance**	**2015 Variance**	**2016 Variance**	**2017 Variance**	**2018 Variance**	**2019 Variance**	**2020 Variance**	**2021 Variance**	**2022 Variance**	**2023 Variance**	**Total**
$2M	$(2M)	$.4M	$(3M)	$4M	$(1M)	$(4M)	$6M	$10M	$31M	$17M	$60M

As demonstrated in the actuals above, the distribution function was actually allocated an additional capital in seven of the last eleven years. The variances between the budget and allocated capital are largely the result of timing of execution of capital projects. Additional information for the years 2013-2019 is provided below; please see the Company's response to KPSC 2-3(b) for the explanation of the variances for 2020-2023.

- 2013- Kentucky Power was allocated approximately $2 million in additional distribution capital to support new customer work and pole and recloser replacements.
- 2014- Kentucky Power re-allocated spend by approximately $2 million related to new customer work that did not materialize.
- 2015- Kentucky Power was allocated spend by approximately $0.5 million related to third party work.
- 2016- Kentucky Power re-allocated spend by approximately $3.3 million related to new customer and third party driven work that did not materialize.
- 2017- Kentucky Power was allocated approximately $4.2 million in additional distribution capital to support additional identified station improvements, forestry, and asset replacement work.
- 2018- Kentucky Power re-allocated spend by $1.2 million related to public relocation work timing.

- 2019- Kentucky Power reallocated spend by $3.7 million related to delay in station work.

Witness: Brian K. West

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_6 Refer to Kentucky Power's Response to Staff's First Request, Item 9. Provide the annual amounts of total energy purchases, energy purchases not recovered through the fuel adjustment clause and energy purchases recovered through Tariff PPA from 2016 to the present. Separately, identify energy purchases made for each of the following: forced outages, maintenance outages, and reserve shutdowns.

RESPONSE

Please refer to KPCO_R_KPSC_2_6_Attachment1 for the amounts of energy purchased for native load requirements and the amounts recovered through the fuel adjustment clause and through Tariff PPA.

The Company does not separately track energy purchases for maintenance outages and when the units are in reserve shutdown. The amount of energy purchased is not dependent upon a unit commitment status; rather, energy purchases are determined by economic principles. When a unit is in "reserve shutdown" that means that it was not economically scheduled to run by the RTO, therefore it was lower cost to purchase market energy than to run the unit. When the cost of spot market energy is less than the variable cost of the Company's generation sources, the Company's resources are not dispatched (generate energy) and customers simply pay the lower cost of market energy. For these reasons, this portion of the requested information is not tracked.

Witness: Alex E. Vaughan

DATA REQUEST

KPSC 2_7 Refer to the West Direct Testimony, page 7.
a. Provide documentation of and explain the date at which Kentucky Power made the decision to not renew the Rockport Unit Power Agreement (UPA).
b. Prior to the expiration of the Rockport UPA, explain whether Kentucky Power had sufficient capacity to satisfy both its PJM obligations as well as its Kentucky statutory obligations.
c. As of the date provided above, explain when Kentucky Power made the decision to fulfill the capacity deficit created by the expiration of the Rockport UPA with an actual physical generation facility as opposed to annual bilateral unforced capacity purchase agreements.

RESPONSE

a. By its terms, the August 1, 1984 Unit Power Agreement by and between Kentucky Power Company and AEP Generating Company (the "Rockport UPA") became "effective with the date of commercial operation of Rockport Unit No. 1" and, after its term was extended in 2004, "continue[d] in effect through December 7, 2022."[1] The Rockport UPA did not contain any term or provision that conveyed to Kentucky Power the right to renew the Rockport UPA upon its expiration.

Because the Rockport UPA did not provide Kentucky Power with a right to renew that agreement, the Company cannot identify the date on which it made a "final decision to not renew the Rockport UPA." Nonetheless, beginning at least as early as February 2019, Kentucky Power consistently conveyed to the Commission the Company's expectation that the Rockport UPA would terminate in 2022, that Kentucky Power would not seek to extend or negotiate a new Rockport UPA, and that the Company expected that the Rockport UPA would be replaced with lower cost capacity.[2] In its 2019 environmental compliance plan proceeding, Kentucky Power indicated that "the Company [did] not intend to extend the UPA beyond December 7, 2022," and that it "currently expect[ed] that the Rockport UPA [would] expire and not be renewed."[3] The Company further stated

[1] Rockport UPA, Section 6.
[2] *See*, e.g., Case No. 2018-00418, Kentucky Power's Response to Commission Staff's First Set of Data Requests, Item 17 (Feb. 8, 2019).
[3] *See* Case No. 2019-00389, Kentucky Power's Response to Commission Staff's First Set of Data Requests, Item 6 (Jan. 31, 2020).

that, if the Company's decision to not renew the Rockport UPA changed, then Kentucky Power would seek Commission approval to extend the UPA.[4]

b. Both prior to and after the expiration of the Rockport UPA, the Company had and continues to have sufficient capacity to satisfy both its PJM obligations as well as its Kentucky statutory obligations. Through its membership in PJM, the Company has adequate capacity to meet its customers maximum expected requirements. As a member of PJM, the Company contributes its allocated share of the capacity necessary for PJM to meet its system-wide capacity obligations, including its FERC-approved reserve margin. PJM's capacity obligations, including the reserve margin, are sized to meet the system's summer peak requirement and, by doing so, provides adequate capacity to meet the winter peaks of its members. In exchange for contributing its allocated capacity, Kentucky Power has access to energy from the geographically broad and technologically diverse PJM resource pool to meet its customers' requirements. Kentucky Power meets its allocated capacity obligation to PJM through a combination of owned generation and contracted-for capacity resources. Please also see the Company's response to KPSC 2-9. Also see the Company's responses to KPSC 1-9 and AG-KIUC 1-1.

c. The Company is currently carrying out the preferred plan from its 2019 IRP.

Witness: Brian K. West

Witness: Alex E. Vaughan

[4] *Id.*

DATA REQUEST

KPSC 2_8 Refer to the West Direct Testimony, pages 8–9.
a. Considering that Kentucky Power joined PJM in 2004, explain how many years Kentucky Power has relied on PJM to cover its native load requirements with capacity purchases during the winter season.
b. Provide a breakdown in a table of Kentucky Power's current generation load, any PPA's that it is currently involved in, and its current market capacity purchases. Include in the response its current summer and winter native load requirements.

RESPONSE

a. The premise of this question is incorrect. The Company has always procured some amount of its load from a power pool, before and after it joined the PJM RTO. Kentucky Power has never functioned as its own control area and balancing authority. Please refer to section IV of Company Witness Vaughan's testimony which discusses this topic in detail.

b. The Company interprets this request to be requesting unforced generation capacity, as the Company is unfamiliar with the term "generation load." As such, the Company is providing generation and purchased capacity resources for the current PJM Planning Period 2023/2024, which covers June 1, 2023 – May 31, 2024. The Company also interprets the request for current summer and winter native load requirements to be for the current PJM Planning Period 2023/2024. The Company is providing the PJM UCAP Obligation and the actual recorded summer and winter[5] peaks.

[5] At the time of filing, the winter peak for 2023/2024 is preliminary.

Generation and Capacity Resources June 1, 2023 - May 31, 2024	
Resource	**MWs**
50% share of Mitchell	780
Big Sandy 1	295
UCAP Purchase	65
Total Generation Capacity	1,140
PJM 23/24 UCAP Obligation	1,034
23/24 Actual Peaks	
Summer 23/24	957
Winter 23/24	1,238

Witness: Brian K. West

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_9 Refer to the West Direct Testimony, pages 7–12. Explain whether the 152.4 MW and subsequent years' contracted capacity amounts satisfy Kentucky Power's PJM summer capacity obligations or Kentucky Power's own forecast peak winter capacity requirement obligations.

RESPONSE

The 152.4 MW and subsequent year's contracted capacity amounts satisfy Kentucky Power's allocated capacity obligations for PJM. As described throughout Witness Vaughan's Direct Testimony and specifically on page 14, generation owners within PJM provide adequate resources in the annual capacity procurement process to satisfy PJM's summer peak, including a reserve margin. PJM's summer peak demand is greater than its winter peak. Through its Commission-approved participation in PJM, including with regard to the resource procurement process described above, Kentucky Power (like all other LSEs in the PJM footprint) has access to adequate resources to satisfy its winter peak.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_10 Refer to the Direct Testimony of Alex Vaughan (Vaughan Direct Testimony), page 10. Also refer to Kentucky Power's response to Staff's First Request, Item 9. In Excel spreadsheet format with all formulas, rows, and columns unprotected and fully accessible, provide monetary calculations of the savings mentioned by joining the PJM pool for the years 2017 through 2023. Provide an additional detailed description of how Kentucky Power derived the calculation.

RESPONSE

The requested Excel spreadsheet savings calculation does not exist. The concept that customers have saved money by virtue of Kentucky Power joining PJM is demonstrated through the economic dispatch process that PJM follows. Specifically, when the variable cost of generation is less than the marginal cost of energy from PJM, the Company's generation provides a financial hedge on the cost of spot market energy. When the cost of spot market energy is less than the variable cost of the Company's generation sources, the Company's resources are not dispatched (generate energy) and the customers simply pay the lower cost of market energy. Please also refer to PJM's value proposition which is publicly available at https://www.pjm.com/-/media/about-pjm/pjm-value-proposition.ashx.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_11 Refer Staff's First Request, Item 1. Provide all responses to the Request for Proposals (RFPs), all of the evaluation criteria used by Kentucky Power and an update as to the internal evaluation process.

RESPONSE

Please see KPCO_R_KPSC_2_11_ConfidentialAttachment1 for the requested information. The information comprising this attachment totals approximately 3.5 GB. Due to the voluminous nature of the attachment, the Company is providing the information on a USB drive confidentially to the Commission and all parties who have entered into a non-disclosure agreement with the Company in this proceeding. The evaluation criteria is included in the RFP document which was provided in the Company's response to KPSC 1-1. The evaluation of the bids received is currently in process and should be considered preliminary and draft in addition to being confidential in its entirety.

Witness: Brian K. West

Witness: Alex E. Vaughan

KPCO_R_KPSC_2_11_ConfidentialAttachment1 has been redacted in its entirety.

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_12 Refer to Staff's First Request, Item 5. Provide the specific language in the May 3, 2022 Order referenced by Kentucky Power in this response, requiring termination of the interest.

RESPONSE

The Commission, via its May 3, 2022 Rehearing Order in Case No. 2021-00004 at page 7, recognized the fact that the Commission's denial of the CPCN to construct the ELG projects meant that Kentucky Power's interest in the Mitchell Plant must terminate after December 31, 2028, where it said:

"Further, given that Kentucky Power will have to terminate its interest in Mitchell by December 31, 2028, to comply with the Commission's July 15, 2021 Order, Kentucky Power will not receive value from the CCR project after 2028."

The Commission confirmed that Kentucky Power's interest in the Mitchell Plant must terminate after December 31, 2028 when it said in its May 3, 2022 Order in Case No. 2022-00421 at page 13, where it said:

"Based upon a review of the case record and being otherwise sufficiently advised, the Commission finds that the buyout provision contained in Article 9.6 of the revised Ownership Agreement, and related provisions, including the unit swap dispute resolution provisions in Article 12 and the buyout provision-related definitions, are not reasonable...because the buyout provision is based on assumptions regarding future circumstances that are likely to change closer to the December 31, 2028 date when Kentucky Power's interest in Mitchell must terminate in accordance with the July 15, 2021 Order in Case No. 2021-00004."

Witness: Brian K. West

Kentucky Power Company
KPSC Case No. 2021-00370
Commission Staff's Second Set of Data Requests
Dated January 17, 2024

DATA REQUEST

KPSC 2_13 Refer to Vaughan's Direct Testimony, page 34, Figure AEV-2. Confirm that the Replacement Energy and Capacity Cost is for the year 2023 and identify the time frame in 2023. If not for the year 2023, identify the period referenced for that cost.

RESPONSE

Not confirmed. The time frame used in Witness Vaughan's Direct Testimony on page 24, Figure AEV-2, is December 2022 – November 2023.

Witness: Alex E. Vaughan

VERIFICATION

The undersigned, Stephen D. Blankenship, being duly sworn, deposes and says he is the Region Support Manager, for Kentucky Power, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Stephen D. Blankenship

Commonwealth of Kentucky)
) Case No. 2021-00370
County of Boyd)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Stephen D. Blankenship, on February 6, 2024.

Notary Public

SCOTT E. BISHOP
Notary Public
Commonwealth of Kentucky
Commission Number KYNP32110
My Commission Expires Jun 24, 2025

My Commission Expires June 24, 2025

Notary ID Number KYNP 32110

VERIFICATION

The undersigned, Timothy C. Kerns, being duly sworn, deposes and says he is the Senior Vice President of Fossil Hydro Generating Assets, for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Timothy C. Kerns

Commonwealth of Kentucky)
)
County of Boyd)

Case No. 2021-00370

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Timothy C. Kerns, on February 5, 2024

Marilyn Michelle Caldwell

Notary Public

MARILYN MICHELLE CALDWELL
Notary Public
Commonwealth of Kentucky
Commission Number KYNP71841
My Commission Expires May 5, 2027

My Commission Expires May 5, 2027

Notary ID Number KYNP71841

VERIFICATION

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Managing Director for Renewables and Fuel Strategy for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Alex E. Vaughan

Franklin County)
Ohio)
) Case No. 2021-00370

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Alex E. Vaughan, on February 7 2024

Notary Public

NOTARIAL SEAL STATE OF OHIO

Paul D. Flory
Attorney At Law
Notary Public, State of Ohio
My commission has no expiration date
Sec. 147.03 R.C.

My Commission Expires Ken

Notary ID Number KY EP

VERIFICATION

The undersigned, Brian K. West, being duly sworn, deposes and says he is the Vice President, Regulatory & Finance for Kentucky Power, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief..

Brian K. West

Commonwealth of Kentucky)
) Case No. 2021-00370
County of Boyd)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Brian K. West, on February 6, 2024

Marilyn Michelle Caldwell
Notary Public

My Commission Expires May 5, 2027

Notary ID Number KYNP71841

MARILYN MICHELLE CALDWELL
Notary Public
Commonwealth of Kentucky
Commission Number KYNP71841
My Commission Expires May 5, 2027