

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_1** Provide copies of the 2023 All-Source Purchase Power Agreement (PPA) request for proposals (RFP) for additional capacity resources.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_1\_Attachment1 through KPCO\_R\_KPSC\_1\_1\_Attachment3.

Witness: Alex E. Vaughan



American Electric Power Service Corporation  
as agent for  
Kentucky Power Company

**Request for Proposals**  
**Power Purchase Agreements (PPAs)**

from Qualified Bidders

for

**Solar Energy Resources,**  
and / or  
**Wind Energy Resources**

Kentucky Power Company is seeking resources (e.g. wind, solar, thermal, battery storage) via Power Purchase Agreements (PPAs) totaling up to:

Approximately 875 MW of Accredited Summer Capacity, and  
Approximately 1,300 MW of Accredited Winter Capacity

**This RFP is associated with Wind & Solar Resources only.**  
Other RFPs may be found at the Web Address noted below.

RFP Issued: September 22, 2023  
Proposals Due: November 8, 2023

Web Address: <https://www.kentuckypower.com/rfp>



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**BACKGROUND**

Kentucky Power Company (“KPCO” or the “Company”) is pursuing additional generation resources via three Request for Proposals (“RFPs”) to satisfy the need for additional capacity resources consistent with their 2022 Integrated Resource Plan as follows:

- ~875 MW of Accredited Summer Capacity, *and*
- ~1,300 MW of Accredited Winter Capacity

Resources purchased or contracted for as the result of the RFPs will be used to satisfy both the needs of the Summer and Winter Capacity volumes outlined above.

**The Company will evaluate each of the RFPs, individually and collectively, to determine the portfolio of projects that it elects to move forward with.**

<b>PPA</b>	<b>Wind and Solar RFP seeking energy, capacity, environmental attributes, and ancillary services via one or more PPAs.</b>
Thermal	Thermal RFP seeking energy, capacity, and ancillary services via one or more PPAs.
Standalone Storage (PPA)	Standalone Storage RFP seeking energy, capacity, and ancillary services via one or more PPAs with a Battery Storage Resource.

**This RFP is associated with the Wind and Solar PPA RFP only.**

The Thermal and Standalone Storage RFPs may be found at [www.kentuckypower.com/rfp](http://www.kentuckypower.com/rfp).

**1. Introduction**

American Electric Power Service Corporation (AEPSC) and Kentucky Power Company (KPCO, Company or Kentucky Power) are subsidiaries of American Electric Power Company, Inc. (AEP).

AEPSC is administering this Request for Proposals (RFP) on behalf of KPCO. Affiliates of AEP and/or KPCO are not permitted to participate in this RFP.

American Electric Power is one of the largest electric utilities in the United States, delivering electricity and custom energy solutions to approximately 5.6 million customers in 11 states. AEP owns the nation's largest electricity transmission system, a more than 40,000-mile network that includes more 765-kilovolt extra-high voltage transmission lines than all other U.S. transmission systems combined. AEP also operates 225,000 miles of distribution lines. AEP ranks among the nation's largest generators of electricity, owning approximately 25,000 megawatts of generating capacity in the U.S. AEP also supplies over 5,300 megawatts of renewable energy to customers. AEP's utility units operate as AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power,



Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana and east Texas). AEP's headquarters are in Columbus, Ohio. More information about AEP can be accessed by visiting [www.aep.com](http://www.aep.com).

Kentucky Power Company, headquartered in Ashland, KY, encompasses the AEP service territory in Eastern Kentucky. KPCO serves approximately 163,000 customers. KPCO has 1,263 miles of transmission and 10,074 miles of distribution lines. Additional information regarding KPCO can be accessed by visiting [www.kentuckypower.com](http://www.kentuckypower.com).

## 2. RFP Overview

- 2.1 KPCO is requesting Proposals which will result in obtaining approximately: 875 MW of PJM Accredited Summer Capacity and 1,300 MW of PJM Accredited Winter Capacity from generation resources to meet overall capacity need. The Projects sought through this RFP are to satisfy the requirements identified in the 2022 IRP. Depending on the results of the RFP, the Company may pursue different quantities or types of resources from those specified in the IRP.

The minimum nameplate rated bid size for this RFP is 20 MWac for PJM Interconnected Projects and 5 MWac for Kentucky Power Distribution interconnected Projects.

- 2.2 This RFP seeks PPAs for purchase of Renewable Energy Products (Energy, Capacity, Environmental Attributes (including Renewable Energy Certificates) and ancillary services) from Solar and/or Wind Energy Resources. KPCO will not consider proposals in this RFP that do not meet these criteria. Proposals for PSA and Capacity only products will not be accepted (see "Background," page 1.)
- 2.3 Affiliates of AEP and/or KPCO may not participate in this RFP.
- 2.4 KPCO may execute one or more Solar and/or Wind Project PPAs as a result of this RFP.
- 2.5 Any Project(s) with which KPCO moves forward as a result of this RFP will be subject to KPCO's receipt of the necessary regulatory approvals, including regulatory approvals from the Kentucky Public Service Commission (KPSC).
- 2.6 All questions regarding this RFP should be emailed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

KPCO will post a list of the non-confidential "Questions and Answers" on its RFP website [www.kentuckypower.com/rfp](http://www.kentuckypower.com/rfp) on a weekly basis following the issuance of the RFP until the Proposal Due Date.

- 2.7 This RFP is not a commitment by the Company to contract with any Project and it does



not bind the Company or its Affiliates in any manner. The Company in its sole discretion will determine which Bidders, if any, it wishes to engage in negotiations with that may lead to PPAs with one or more selected Projects.

### 3. Product Description and Requirements

- 3.1. Product: The Company is seeking to purchase the Renewable Energy Products from a Project to deliver energy into PJM (PJM Interconnection L.L.C.) or KPCO's distribution electrical system via a Power Purchase Agreement (PPA). Renewable Energy Products shall include:
  - 3.1.1. Energy
  - 3.1.2. Capacity
  - 3.1.3. Environmental Attributes (including RECs)
  - 3.1.4. Ancillary Services (if available)
- 3.2. Expected Commercial Operation Date (COD): The Company is pursuing both operational Projects and Projects that can achieve an Expected Commercial Operation Date (COD) by December 31, 2026 or December 31, 2027.
- 3.3. Term: The base Term of the PPA shall be 20-years. In addition to a 20-year Term, Bidder may offer Alternate Term proposals.
- 3.5. Delivery Period: The Delivery Period shall commence on January 1, 2027, or January 1, 2028, and continue for the length of the Term.
- 3.6. Size: This PPA RFP is seeking approximately: 875 MW of Accredited Summer Capacity and 1,300 MW of Accredited Winter Capacity from Wind and Solar resources to meet overall capacity need. The ultimate amount of any one type of resource selected from all RFPs will depend on AEP's bid selection process. The minimum acceptable Project size is 20 MWac for PJM interconnected Projects and 5 MWac for KPCO distribution interconnected Projects.
- 3.7. Location: Projects must be 1) physically located in the PJM Interconnection, LLC Region and interconnected to the PJM Transmission system, or 2) interconnected to the KPCO distribution system. The interconnection point with the PJM transmission system or KPCO's distribution electrical system will be the Point of Delivery.
- 3.8. Local Goods & Services: KPCO encourages the use of local goods or services sourced, in whole or in part, from one or more Kentucky businesses in the construction and/or operation of the Project or United States-based manufacturers using materials or product components made in Kentucky.
- 3.9. Project Development:
  - 3.9.1. Bidder must have established site control of the proposed Project. Site control must be in the form of direct ownership, land lease, land lease option or easement. A letter of intent will not be an acceptable form of demonstrated site control.



3.9.2. Construction Labor: KPCO prefers that Bidders use union labor with an affiliation to the Building and Construction Trade Unions for the site preparation and construction of the Project. Proposals for non-union labor will be accepted.

3.9.3. Bidder shall use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work.

3.10. Interconnection:

3.10.1. Projects must be interconnected to PJM and have a completed PJM System Impact Study which remains active in the PJM Queue.

OR

3.10.2. Projects must be interconnected to KPCO's distribution electrical system and must have a completed Distribution Impact Study from the KPCO Distribution Planning Group prior to the Proposal Due Date. In addition, the application for the Distribution Impact Study shall have a utility date and time-stamp no later than September 22, 2023.

3.10.3. Bidders are responsible for following the established policies and procedures that are in effect regarding facility interconnection and operation with the interconnecting utility and PJM.

3.10.4. The Bidder is responsible for all costs associated with transmission interconnections and system upgrades as required by the interconnecting utility and PJM.

**4. Bid Price and Structure:**

4.1. The Bid Price must be for a bundled Renewable Energy Product as described in §3.1.

4.2. The Bid Price shall be on an "as-available" per MWh basis with no separate capacity payment.

4.3. All-in Price. Pricing must include all capital costs, fixed and variable O&M costs, taxes and any other costs associated with delivering the full contracted energy output of the facility to the bid-specified Point of Delivery. All costs associated with distribution and/or transmission interconnection (as applicable) and interconnection facilities required for the Project, including any system upgrades, as required by PJM up to the Point of Delivery, shall be included in the Bidder's pricing where appropriate under current FERC orders and rulings.

4.4. Bid Price must be an "all-in" around-the-clock Price (\$/MWh) for the entire term of the agreement commencing on January 1, 2027 or January 1, 2028.

4.5. The Bid Price must be a fixed, non-escalating price for the term of the PPA.



- 4.6. Proposals must include a Bid Price for a 20-year Term. Additionally, Bidders may include proposals with Alternate Terms.
- 4.7. The Company will pay for Renewable Energy Products prior to the Delivery Period (§3.5) at the Real-Time Locational Marginal Price (\$/MWh) at the Point of Delivery less any associated PJM charges.
- 4.8. The Bid Price shall include any costs associated with meeting the credit requirements stated in the Form PPA Agreement.
- 4.9. Associated Attributes. For purposes of this solicitation, the sale of Renewable Energy Products to KPCO under the long term PPA includes the transfer of all capacity, energy ancillary services (if any), and environmental attributes including associated renewable energy certificates (RECs) and any other current or future environmental attributes, including any greenhouse gas emission reductions associated with the quantity contracted from the facility from the project for the term of the PPA.
- 4.10. Prices must be firm, representing best and final bid. Proposals and bid pricing must be valid for at least 180 days after the Proposal Due Date.

**5. RFP Schedule**

The schedule and deadlines set out in this section apply to this RFP. KPCO reserves the right to revise this schedule at any time and at its sole discretion.

RFP Issued	September 22, 2023
Proposal Due Date	November 8, 2023
Bidder(s) Selected for Final Contract Negotiations	January 31, 2024
Contract Execution	June 1, 2024
State Regulatory Filings	July 1, 2024
Receipt of Regulatory Approval Order(s)	December 15, 2024
Seller Conditions to NTP achieved	March 31, 2025
Notice to Proceed (NTP)	April 15, 2025
Commercial Operation (COD)	December 31, 2026 or December 31, 2027
PPA Delivery Period Start Date	January 1, 2027 or January 1, 2028

**6. Proposal Submission**

- 6.1. Bidders will be required to sign a Confidentiality Agreement (CA) prior to receiving detailed instructions on how to access the RFP Proposal documents and submit Proposals.





- 6.2. Bidder should request KPCO's Form CA by emailing ([KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)) and including the following documentation:
- Supporting documentation of Bidder's experience in developing, engineering, procuring equipment, construction, and commissioning wind or solar powered electric generation facilities (> Project bid size) in the United States or any portion of Canada and/or otherwise have demonstrated appropriate experience.
  - Verification of Site Control as required by Section 3.9.1.
  - PJM Projects: Completed PJM System Impact Study as required by Section 3.10.1.
  - KPCO Distribution Projects: Verification that the 1) Bidder expects to have a completed KPCO Distribution Impact Study as required by Section 3.10.2 prior to the Proposal Due Date, and 2) the application for the Distribution Impact Study had been submitted with a utility date-stamp and time-stamp of no later than September 22, 2023.
- 6.3. A completed Proposal shall be submitted electronically by the Proposal Due Date via a Box site. **More detailed information on how to submit the proposals will be provided upon a completed Confidentiality Agreement.**
- 6.4. Proposals must be complete in all material respects and received in the above-reference Box site no later than 3 p.m. EST on the Proposal Due Date as defined in Section 5.
- 6.5. The Company will provide an email to the Bidder acknowledging its receipt of the Bidder's Proposal.
- 6.6. KPCO reserves the right to solicit additional proposals, if it deems necessary to do so, and the right to submit additional information requests to Bidders during the evaluation process.
- 6.7. Proposals and bid pricing must be valid for at least 180 days after the Proposal Due Date at which time Proposals shall expire unless the Bidder has been notified that its Proposal has been included in the Final Project Selection.
- 6.8. A Proposal should be as comprehensive as possible to enable the Company to make a definitive and final evaluation of the Proposal's benefits to its customers without further contact with the Bidder.

## 7. Proposal Content

Bidders are encouraged to provide as much information as possible to aid in the evaluation of the proposal. The Bidder should also provide any additional information the Bidder deems necessary or useful to the Company in making a definitive and final evaluation of the benefits of the Bidder's proposal without further interaction between the Company and the Bidder.



Bidders must submit the following information for each Proposal. All electronic versions of the Appendices shall be uploaded to the designated folders in the Box site.

- 7.1. A completed Proposal Content Check Sheet (Appendix A).
- 7.2. An executive summary of the Project's characteristics and timeline, including any unique aspects and benefits.
- 7.3. Completed Project Summary (Appendix B) for Solar and/or Wind Projects, including the electronic Project Summary Form (link to form in Box), with the following attachments:
  - PTC/ITC Strategy: Summary of how the Project will qualify for Federal Tax Credits (e.g. PTCs or ITCs).
  - Interconnection Studies: Include a copy of ALL completed interconnection studies (i.e. System Impact Study, Distribution Impact Study, Facilities Study, etc.)
  - Site Layout: Include a diagram or map identifying anticipated placement of major equipment and other project facilities, including transmission layouts and Point of Delivery.
  - Site Control Documents: Include a copy of all leases, easements or other ownership documentation (§3.9.1).
  - Permit Matrix: Attach a comprehensive permit matrix and status of all required permits, including, but not limited to Federal (USFWS, FAA), State, County, City, etc.
  - Environmental Report Summary: Summary of all environmental and other reports associated with the site.
  - Bidder must provide documentation showing they have substantial experience in operating and maintaining wind or solar (as applicable) powered electric generation facilities of an equal or greater MW size in the United States or any portion of Canada within the jurisdiction of NERC, and (ii) meet all applicable requirements under applicable law for operating and maintaining the wind or solar (as applicable) facilities, including the requirements of an RTO / ISO. A Person will be deemed to have such substantial experience if it is a Person that has at least three (3) years of experience in operating and maintaining wind or solar powered electric generation facilities of a similar MW size or greater in the United States or any portion of Canada within the jurisdiction of NERC.
- 7.4. A completed Proposal Bid Pricing (Appendix C).
- 7.5. A completed Bidder's Credit-Related Information and Bidder Profile (Appendix D) which shall include:
  - The identity of all persons and entities that have a direct or indirect ownership



interest in the Project.

- Copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available.
- At least three third-party references.

7.6. Provide (i) an affirmative statement that Bidder's taking no exception to the Form PPA provided pursuant to this RFP; or (ii) a comprehensive list of exceptions to the terms and conditions contained in the applicable Form PPA (Appendix E).

7.7. Bidder shall submit a Finance Plan on a separate form. Bidders must provide a proposed financing plan, including any letters of support, previous correspondence with banks / lenders intending to provide financing for the project. Also provide the proposed on-going debt-equity ratio to be carried by the project during construction and operation (Appendix F).

7.8. A completed Production Profile (Appendix G).

7.9. A Completed (Appendix H) including:

- Use of Local Goods & Services: Plan for use of local goods or services sourced, in whole or in part, from one or more Kentucky businesses in the construction and/or operation of the Project. The bidder should identify these Kentucky resources in its proposal. (§3.8)
- Use of Small and Diverse Suppliers: Plan to use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (§3.9.3)

## 8. Proposal Evaluation

Proposals must include ALL applicable content requirements as described in Section 7 – Proposal Content. KPCO will consider bids that are reliable, feasible and represent the reasonable cost means of satisfying the requirements of this RFP. The Proposal Evaluation Process, which includes three main steps, is central to the success of KPCO's RFP process.

Section 8.1: Eligibility and Threshold Requirements

Section 8.2: Detailed Analysis

Section 8.3: Final Project Selection

8.1 Eligibility and Threshold Requirements: If the Proposal does not qualify under any one of the Sections 8.1.1 – 8.1.11, the Bidder will not qualify for this RFP and will be notified accordingly.

8.1.1 Proposal must be for a PPA and include the Renewable Energy Products from a solar or wind energy resource (§3.1).

8.1.2 Projects must have an expected COD by December 31, 2026 or December 31, 2027 (§3.2).



- 8.1.3 PJM interconnected Projects must have a minimum size of 20 MWac and KPCO Distribution interconnected projects must have a minimum size of 5 MWac. (§3.6).
  - 8.1.4 Projects must be physically located in the PJM Region (e.g. interconnected to the PJM Transmission system) or interconnected to the KPCO distribution system. (§3.7).
  - 8.1.5 Bidder must have established Site Control (§3.9.1).
  - 8.1.6 Bidder must have 1) a completed PJM System Impact Study (§3.10.1) which remains active in the PJM queue, or 2) a completed KPCO Distribution Impact Study prior to the Proposal Due Date and the application for the Distribution Impact Study had been submitted no later than September 22, 2023 (§3.10.2).
  - 8.1.7 The Bid Price must be a fixed, non-escalating price for the term of the PPA (§4.5).
  - 8.1.8 Bidder must provide a Bid Price for a 20-year Term (§4.6).
  - 8.1.9 Bidder shall have completed the development, engineering, equipment procurement and construction of a wind or solar project within the United States or Canada of an equal or greater than the Bidder's proposed Project and have demonstrated appropriate operating experience (§7.3).
  - 8.1.10 Bidder's exceptions to the Form PPA, considered individually or in the aggregate, are minimally acceptable to the Company as a basis for further discussions (§7.6).
  - 8.1.11 Bidder is required to include requested financial information (Appendix D) so that AEP's credit department can conduct a financial wherewithal assessment. The Proposal price shall include any costs associated with meeting the PPA credit requirements (§7.5).
- 8.2 Detailed Analysis: Proposals meeting the Eligibility and Threshold Requirements in Section 8.1 will move to the Detailed Analysis phase which is comprised of the Economic Analysis and the Non-Price Factor Analysis set forth below. The Economic Analysis will constitute 60% and the Non-Price Factor Analysis will constitute 40% of the overall evaluated value of each Proposal.
- 8.2.1 Economic Analysis: The Economic Analysis will include the calculation of three financial metrics which will provide multiple perspectives on cost and value. These will include Levelized Adjusted Net Cost of Energy (LANCOE), Levelized Adjusted Net Cost of Capacity (LANCOC), and a Value to Cost (V/C) Ratio.



V/C Ratio will be the primary ranking metric, which will constitute 60% of the overall evaluated value of the Proposal in its Final Project Selection. Additional details of the three financial metrics described above are as follows:

$$\text{LANCOE (\$/MWh)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected Energy Production (MWh)}}$$

$$\text{LANCOC (\$/MW-Day)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected PJM Accredited Capacity in MW}}$$

$$\text{V/C Ratio} = \frac{\text{Total Value*}}{\text{Total Cost* (Present value of all Project costs*)}}$$

\* Defined below

**Total Cost:** The Company will determine the present value of the costs of each qualifying Proposal. This Total Cost calculation is based on a PSA Proposal's Bid Price (\$M) plus projected operations and maintenance costs (including land lease costs), fuel expense, Transmission and Congestion costs, tax expenses, decommissioning costs (including expected salvage), and applicable federal tax credits. For PPA bids, Total Costs will be evaluated based on the contract's demand charges, energy charges, and any other applicable charges. Other costs may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Total Value:** The Company will determine the present value of all the value streams of each qualifying Proposal. The value streams include the expected PJM revenues for the Proposal's energy, ancillary services and capacity, and the expected value of renewable energy certificates (RECs), and any applicable terminal value. Additionally, other value streams and financial metrics may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Transmission and Congestion Costs:** Transmission and Congestion Costs will be determined by the Company's transmission screening analysis. The transmission screening analysis will evaluate (i) transmission facilities cost and the network upgrade cost allocated to the Proposal, (ii) expected cost of transmission congestion and losses to the AEP KY's PJM load zone and (iii) cost of deliverability / curtailment risk mitigation that the Company calculates to ensure that the resources can be designated as firm resources to meet Company's capacity obligations. Transmission and Congestion Costs will be included in Total Cost calculations.

**Accredited Capacity:** Accredited Capacity shall be computed by adjusting a qualifying Proposal's applicable nameplate or contracted capacity by the expected adjustments that are



used- or are expected to be used by the PJM RTO to determine the number of MW that the Company will be credited for use in meeting applicable capacity obligations. These adjustments will include, but are not limited to, summer and winter Effective Load Carrying Capability (ELCC) adjustments and forced outage rate adjustments.

8.2.2 Non-Price Factor Analysis: The Non-Price Factor Analysis will be comprised of the following:

- 8.2.2.1 Project Location.
- 8.2.2.2 Local economic impacts & benefits, Community relations, and use of local and diverse suppliers. Please refer to <https://www.aep.com/b2b/suppliers> for guidelines.
- 8.2.2.3 The Project's Dispatch Flexibility including: Dispatch Range, Ramp Rates, Max Operational Hours, Minimum up & down times, and Ancillary Service potential.
- 8.2.2.4 Cost & technology risk including: Natural gas pricing, Firm fuel cost requirements, O&M, Storage Charging costs, & PJM Performance Assessment Interval (PAI) Risk.
- 8.2.2.5 Bidder's experience in developing similar projects as included in the Proposal as well as Bidder's operating history of similar generation facilities.
- 8.2.2.6 Status of interconnection process with PJM or KPCO distribution, as applicable.
- 8.2.2.7 The development status of Bidder's generation facility including, but not limited to, permitting status.
- 8.2.2.8 Bidder's exceptions to the Form PPA. The Company will review the exceptions the Bidder proposed to the Company's form agreement with a focus on risks or additional costs to the Company. Prior agreement by AEP in previous negotiations does not constitute acceptance of an exception.

8.3 Final Project Selection: KPCO will consider bids that are reliable, feasible and represent a reasonable cost means of satisfying the requirements of this RFP. Based on the results of the Detailed Analysis described above, the Company will determine which Projects will be included in the Final Project Selection. The Company will notify Bidders whether or not their Proposal has been selected and negotiation of definitive agreements will commence with Bidders whose Proposals have been selected.

## 9. Reservation of Rights

A Proposal will be deemed accepted only when the Company and the successful Bidder have



executed definitive agreements for the Company's purchase of Renewable Energy Products from the Project. The Company has no obligation to accept any Proposal, whether the stated price in such Proposal is the lowest price offered. The Company may reject any Proposal in its sole discretion and without any obligation to disclose the reason or reasons for rejection.

By participating in the RFP process, each Bidder agrees that any and all information furnished by or on behalf of the Company in connection with the RFP is provided without any representation or warranty, express or implied, as to the usefulness, accuracy, or completeness of such information, and neither the Company nor its Affiliates nor any of their personnel or representatives shall have any liability to any bidder or its personnel or representatives relating to or arising from the use of or reliance upon any such information or any errors or omissions therein.

The Company reserves the right to modify or withdraw this RFP, to negotiate with any and all qualified Bidders to resolve any and all technical or contractual issues, or to reject any or all Proposals and to terminate negotiations with any Bidder at any time in its sole discretion. The Company reserves the right, at any time and from time to time, without prior notice and without specifying any reason and, in its sole discretion, to (a) cancel, modify or withdraw this RFP, reject any and all Proposals, and terminate negotiations at any time during the RFP process; (b) discuss with a Bidder and its advisors the terms of any Proposal and obtain clarification from the Bidder and its advisors concerning the Proposal; (c) consider all Proposals to be the property of the Company, subject to the provisions of this RFP relating to confidentiality and any confidentiality agreement executed in connection with this RFP, and destroy or archive any information or materials developed by or submitted to the Company in this RFP; (d) request from a Bidder information that is not explicitly detailed in this RFP, but which may be useful for evaluation of that Bidder's Proposal; (e) determine which Proposals to accept, favor, pursue or reject; (f) reject any Proposals that are not complete or contain irregularities, or waive irregularities in any Proposal that is submitted; (g) accept Proposals that do not provide the lowest evaluated cost; (h) determine which Bidders are allowed to participate in the RFP, including disqualifying a Bidder due to a change in the qualifications of the Bidder or in the event that the Company determines that the Bidder's participation in the RFP has failed to conform to the requirements of the RFP; (i) conduct negotiations with any or all Bidders or other persons or with no Bidders or other persons; (j) execute one or more definitive agreements with any Bidder, and (k) utilize a Bidder's completed Appendices and any supplemental information submitted by the Bidder in any its regulatory filings.

## **10. Confidentiality**

KPCO will take reasonable precautions and use reasonable efforts to maintain the confidentiality of all bids submitted. Bidders should clearly identify each page of information considered to be confidential or proprietary. KPCO reserves the right to release any proposals





to agents or consultants for purposes of proposal evaluation. KPCO's disclosure policies and standards will automatically bind such agents or consultants. Regardless of the confidentiality, all such information may be subject to review by or in proceedings before the appropriate state authority, or any other governmental authority or judicial body with jurisdiction relating to these matters and may be subject to legal discovery. Under such circumstances, KPCO and AEPSC will make reasonable efforts to protect Bidder's confidential information.

## **11. Bidder's Responsibilities**

- 11.1 It is the Bidder's responsibility to submit all requested material by the deadlines specified in this RFP.
- 11.2 The Bidder should make its proposal as complete and comprehensive as possible so that KPCO may make a definitive and final evaluation of the proposal's benefits to its customers without further contact with the Bidder.
- 11.3 Bidders are responsible for the timely completion of the project and are required to submit proof of their financial and technical wherewithal to ensure the successful completion of the project.
- 11.4 The Bidder will be responsible for any expenses Bidder incurs in connection with the preparation and submission of a Proposal and/or any subsequent negotiations regarding a Proposal in response this RFP. KPCO will not reimburse Bidders for their expenses under any circumstances, regardless of whether the RFP process proceeds to a successful conclusion or is abandoned by KPCO at its sole discretion.

## **12. Contacts**

General RFP Questions: All correspondence and questions, with the exception of interconnection related questions, regarding this RFP should be directed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

PJM Interconnection: All correspondence and questions regarding the PJM Interconnection process can be found at:

[PJM Interconnection](#)

KPCO Interconnection: All correspondence and questions regarding the KPCO process can be found at:

[KPCO Interconnection](#)



## Appendix A

### Proposal Content Check Sheet

Section	Item	Completed
7.2	Executive Summary	
7.3	Appendix B (Project Summary)	
	- Completed electronic Project Summary Form (link to form in Box site)	
	- Company & General Project Information	
	- Solar and/or Wind Project Information	
	- Interconnection	
	- Site Information	
	- Permits	
	- Preliminary Site Questions	
	- Bidder Completed Projects	
	<b>Attachments Required:</b>	
	- PTC/ITC Strategy	
	- Interconnection Studies	
	- Site Layout (Map)	
	- Site Control Documents	
	- Permit Matrix	
	- Environmental Report Summary	
7.4	Appendix C (Proposal Bid Pricing)	
7.5	Appendix D (Bidder's Credit Related Information & Bidder's Profile)	
7.6	Appendix E (Exceptions to Form Power Purchase Agreement)	
7.7	Appendix F (Finance Plan)	
7.8	Appendix G (Production Profile)	
7.9	Appendix H (Local Goods & Services/Supplier Diversity/Community Support)	

## Appendix B Project Summary

### *Company Information*

Bidder (Company):		
Contact Name:		
Contact Title:		
Address:		
City:	State:	Zip Code:
Work Phone:	Cell Phone:	
Email Address:		
Is the Proposal being submitted through a partnership, joint venture, consortium, or other association?_____If so, please identify all partners, joint ventures, members, or other entities or persons comprising same.		

### *General Project Information*

Project Name:		
Project site located (County, State):		
Indicate if Project will qualify for the Federal Production Tax Credit or Investment Tax Credit and the applicable percentage (%):		
Will Project comply with the Prevailing Wage and Apprenticeship Requirements (PWAR) (Y/N):		
Interconnection Path (select all that apply)	KPCO (Y/N):	PJM (Y/N):
Expected Commercial Operation Date:		
Bidder confirms it has substantial Project site control including to the Point of Interconnection:	(Y/N)	
<b><i>Solar Project Information (if applicable)</i></b>		
Module Manufacturer / Model:	Annual Degradation (%):	
Configuration (Fixed Tilt / Single Axis):	Design Life (years):	
Inverter Manufacturer / Model:	Capacity Factor (%):	
Expected Annual Energy (MWh):	Expected Annual Availability (%):	
Solar Project Nameplate (MWdc):	Solar Project Nameplate (MWac):	
<b><i>Wind Project Information (if applicable)</i></b>		
Wind Turbine Manufacturer:	Model:	
Wind Project Size (MW):	Expected Annual Availability (%):	
Independent wind report / analysis completed and included in proposal?	(Y/N):	
Source of wind energy forecast:	Design Life (years):	
Expected Annual Energy (MWh):	Capacity Factor (%):	

***Interconnection – PJM (if applicable)***

PJM Queue #:	Substation Name / Voltage:
Transmission Provider:	
<b><i>PJM Study</i></b>	<b><i>Completion or Expected Completion Date</i></b>
Feasibility Study Complete (Y/N):	Report Date:
System Impact Study Complete (Y/N):	Report Date:
Facilities Study Complete (Y/N):	Report Date:

***Interconnection - KPCO Distribution (if applicable)***

Application Date:	
Distribution Impact Study Completion Date:	
Application #:	Substation Name / Voltage:
Status (describe):	

***Site Information***

Site Legal Description:		
Address:		
City:	State:	Zip Code:
County:	Latitude:	Longitude:
Site Control (lease, easement, own, site purchase pending, etc.):		
Site Acres Required:	Site Acres Secured:	
Is there potential for expansion (Y / N):	If Yes; acres available:	
<i>Refer to Appendix B (Attachments Required) for Site Layout and Site Control Documents requested.</i>		

***Permits***

Has Bidder contacted all required permitting agencies and identified all permits for project?	
Local (City/County) (Y / N):	
State (Y / N):	
Federal (Y / N):	
Wildlife Resources (Federal, State, etc.) (Y / N):	
Other (Y / N):	
<i>Refer to Appendix B (Attachments Required) for the Permit Matrix requested.</i>	

***Preliminary Site Questions (Y/N)***

Has the site been assessed for any environmental contamination? Describe any known environmental issues. If necessary, please describe on a separate attachment	
Are there any Tribal Lands or Tribal mineral ownership rights within Project boundary or vicinity?	
Are there any Federally or State owned or controlled lands within Project boundary or vicinity?	
Has The Nature Conservancy or any other non-governmental organizations been engaged?	
Are there Conservation Reserve Program, Wetland Reserve Program or other conservation easements within the Project boundary or vicinity?	
Are there any pollinator vegetation requirements associated with the Project?	
Is the Project located on a brownfield site (e.g. former coal mine)?	
<i>Refer to Appendix B (Attachments Required) for the Environmental Report Summary requested.</i>	

***Attachments Required***

- **PTC/ITC Strategy:** Summary of how the Project will qualify for Federal Tax Credits (e.g. PTCs or ITCs).
  - **Interconnection Studies:** Attach a copy of ALL completed interconnection studies (i.e. System Impact Study, Distribution Impact Study, Facilities Study, etc.).
  - **Site Layout:** Include a diagram or map identifying anticipated placement of major equipment and other project facilities, including transmission layouts and Point of Delivery.
  - **Site Control Documents:** Attach a copy of all leases, easements or other ownership documentation, including to point of interconnect.
  - **Permit Matrix:** Attach a comprehensive permit matrix and status of all required permits, including, but not limited to Federal (USFWS, FAA), State, County, City, etc.
  - **Environmental Report Summary:** The initial Proposals shall include a summary of all environmental and other reports associated with the site. (See **Note 1** for reports to summarize)
- Note 1: As applicable, the following reports are requested: Tier I / II Site Characterization Report, Environmental Work / Survey Plan, Bat Acoustic Survey Report, Avian Use Survey Report, Raptor Nest Survey Report, Prey-base Survey Report, Wetland, Waters and Playa Survey / Assessment Report, Whooping Crane Habitat Assessment Report, Lesser Prairie Chicken Survey / Assessment Report, Phase I Environmental Site Assessment Report, Historical and Cultural Resource Survey / Assessment Report, All Other Species and Environmental Resource Survey and Study Reports, Record and Notes of all Federal or State Resource Agency Correspondence and Meetings, Turbine and Environmental Resource Shapefiles (.kmz format), and Bird and Bat Conservation Strategy and Eagle Conservation Plan (if available).*



## Appendix C

### *Proposal Bid Pricing*

Expected COD by	PPA Term	Expected Annual Energy	Capacity Factor	Bid Price, \$/MWh
				\$
Does Bid Price include the use of union labor?				(Y/N):

### *Alternate Bid Pricing (not required)*

Expected COD by	PPA Term	Expected Annual Energy	Capacity Factor <sup>3</sup>	Bid Price, \$/MWh
				\$
Does Bid Price include the use of union labor?				(Y/N):
Expected COD by	PPA Term	Expected Annual Energy	Capacity Factor <sup>3</sup>	Bid Price, \$/MWh
				\$
Does Bid Price include the use of union labor?				(Y/N):

## Appendix D

### Bidder's Credit-Related Information

Full Legal Name of the Bidder:
Type of Organization (Corporation, Partnership, etc.):
Bidder's % Ownership in Proposed Project (as of proposal submittal date):
If Bidder's Ownership is <100%, identity of all persons and entities that have a direct or indirect ownership interest in the Project:
Full Legal Name(s) of Parent Corporation: 1. 2. 3.
Entity Providing Credit Support on Behalf of Bidder (if applicable): Name: Address: City: Zip Code:
Type of Relationship of Credit Support Provider:
Current Senior Unsecured Debt Rating: 1. S&P: 2. Moody's:
Bank References & Name of Institution:
Bank Contact: Name: Title: Address: City: Zip Code: Phone Number:
Legal Proceedings: As a separate attachment, please list all lawsuits, regulatory proceedings, or arbitration in which the Bidder or its affiliates or predecessors have been or are engaged that could affect the Bidder's performance of its bid. Identify the parties involved in such lawsuits, proceedings, or arbitration, and the final resolution or present status of such matters.
Financial Statements: Please provide copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available. If available electronically, please provide link.

**Bidder's Profile**

Please list Bidder's Affiliate companies:

- 1.
- 2.
- 3.
- 4.

**References**

1. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
2. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
3. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
4. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:



## **Appendix E**

### **Exceptions to Form Power Purchase Agreement**

*See Section 6.1 for instructions to obtain the applicable Form Power Purchase Agreement.*

*Bidder shall include a mark up to the Form Power Purchase Agreement as part of its Proposal.*

## **Appendix F**

### **Financing Plan**

*Bidder to include a description of its financing plan.*

## **Appendix G**

### ***Production Profile***

*Bidder must include an 8760 calendar year hourly energy forecast, net of all losses using the Company's form spreadsheet (See Section 6.1 for instructions to obtain the EnergyInputSheet\_2023.xls)*

## **Appendix H**

### ***Local Goods & Services***

Describe how the Bidder will be using local goods or services sourced in whole or in part from one or more Kentucky businesses, as applicable, to the extent practical in the purchase of equipment and material, or services for the Project:

### ***Use of Small and Diverse Suppliers***

Describe plan to use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (<https://www.aep.com/b2b/suppliers>):

### ***Community Support***

Please provide a description of any economic benefits to local governments and businesses as well as local property and sales tax benefits. Include any executed agreements with the municipality, if available:



American Electric Power Service Corporation  
as agent for  
Kentucky Power Company

**Request for Proposals**  
**Power Purchase Agreements (PPAs)**

from Qualified Bidders  
for  
**Battery Storage Resources**

Kentucky Power Company is seeking resources (e.g. wind, solar, thermal, battery storage) via Power Purchase Agreements (PPAs) totaling up to:

Approximately 875 MW of Accredited Summer Capacity, and  
Approximately 1,300 MW of Accredited Winter Capacity

**This RFP is associated with Battery Storage Resources only.**  
Other RFPs may be found at the Web Address noted below.

RFP Issued: September 22, 2023

Proposals Due: November 8, 2023

Web Address: <https://www.kentuckypower.com/rfp>



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## Attachments

Proposal Content Check Sheet.....	Appendix A
Project Summary.....	Appendix B
Proposal Bid Pricing .....	Appendix C
Bidder's Credit-Related Information and Bidder's Profile.....	Appendix D
Exceptions to Form Term Sheet .....	Appendix E
Financing Plan .....	Appendix F
Local Goods & Services/Supplier Diversity/Community Support.....	Appendix G



**BACKGROUND**

Kentucky Power Company (“KPCO” or the “Company”) is pursuing additional generation resources via three Request for Proposals (“RFPs”) to satisfy the need for additional capacity resources consistent with their 2022 Integrated Resource Plan as follows:

- ~875 MW of Accredited Summer Capacity, *and*
- ~1,300 MW of Accredited Winter Capacity

Resources contracted for as the result of the RFPs will be used to satisfy both the needs of the Summer and Winter Capacity volumes outlined above.

**The Company will evaluate each of the RFPs, individually and collectively, to determine the portfolio of projects that it elects to move forward with.**

PPA	Wind and Solar RFP seeking one or more power purchase agreements (PPAs).
Thermal	Thermal RFP seeking one or more Power Purchase Agreements (PPAs)
<b>Standalone Storage (PPA)</b>	<b>Standalone Storage RFP seeking energy, capacity, and ancillary services via one or more PPAs with a Battery Storage Resource.</b>

**This RFP is associated with Standalone Storage RFP only.**

The wind and solar PPA RFP and Thermal RFP may be found at [www.kentuckypower.com/rfp](http://www.kentuckypower.com/rfp).

**1. Introduction**

American Electric Power Service Corporation (AEPSC) and Kentucky Power Company (KPCO, Company or Kentucky Power) are subsidiaries of American Electric Power Company, Inc. (AEP).

AEPSC is administering this Request for Proposals (RFP) on behalf of KPCO. Affiliates of AEP and KPCO (Affiliate) will not participate in this RFP.

American Electric Power is one of the largest electric utilities in the United States, delivering electricity and custom energy solutions to approximately 5.6 million customers in 11 states. AEP owns the nation's largest electricity transmission system, a more than 40,000-mile network that includes more 765-kilovolt extra-high voltage transmission lines than all other U.S. transmission systems combined. AEP also operates 225,000 miles of distribution lines. AEP ranks among the nation's largest generators of electricity, owning approximately 25,000 megawatts of generating capacity in the U.S. AEP also supplies over 5,300 megawatts of renewable energy to customers. AEP's utility units operate as AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana and east Texas). AEP's



headquarters are in Columbus, Ohio. More information about AEP can be accessed by visiting [www.aep.com](http://www.aep.com).

Kentucky Power Company, headquartered in Ashland, KY, encompasses the AEP service territory in Eastern Kentucky. KPCO serves approximately 163,000 customers. KPCO has 1,263 miles of transmission and 10,074 miles of distribution lines. Additional information regarding KPCO can be accessed by visiting [www.kentuckypower.com](http://www.kentuckypower.com).

## 2. RFP Overview

- 2.1 KPCO is requesting Proposals which will result in obtaining approximately: 875 MW of PJM Accredited Summer Capacity and 1,300 MW of PJM Accredited Winter Capacity from generation resources to meet overall capacity need. The Projects sought through this RFP are to satisfy the requirements identified in the 2022 IRP. Depending on the results of the RFP, the Company may pursue different quantities or types of resources from those specified in the IRP.
- 2.2 This RFP seeks PPAs for the purchase of Energy Storage Products (Energy, Capacity, and Ancillary Services) from the Battery Storage Resources. KPCO will not consider proposals in this RFP that do not meet these criteria. Proposals for Thermal, and PPAs other than Standalone Storage products should be submitted separately into the Company's Thermal and Wind and Solar PPA RFPs (see "Background," page 1.)
- 2.3 The minimum nameplate rated bid size for this RFP is 1) 20 MWac for PJM Interconnected Projects, and 2) 4 MWac for KPCO Distribution Connected Projects.
- 2.4 Affiliates of AEP and KPCO will not participate in this RFP.
- 2.5 KPCO may execute one or more Energy Storage Project PPAs as a result of this RFP.
- 2.6 Any Project(s) with which KPCO moves forward as a result of this RFP will be subject to receipt of the necessary regulatory approval, including regulatory approval from the Kentucky Public Service Commission (KPSC).
- 2.7 All questions regarding this RFP should be emailed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

On a weekly basis following the issuance of the RFP until the Proposal Due Date, KPCO will post a list of the non-confidential "Questions and Answers" on its RFP website:

<https://www.kentuckypower.com/rfp>

- 2.8 This RFP is not a commitment by the Company to purchase the Energy Storage Products from any Project and it does not bind the Company or its Affiliates in any manner. The Company in its sole discretion will determine which Bidders, if any, it wishes to engage in negotiations with that may lead to PPAs with one or more selected Projects.





### 3. Product Description and Requirements

- 3.1. Product: The Company is seeking to purchase the Energy Storage Products from a Project to deliver energy into PJM (PJM Interconnection L.L.C.) or KPCO's distribution electrical system via a PPA. Energy Storage Products shall include:
  - 3.1.1. Energy
  - 3.1.2. Capacity
  - 3.1.3. Ancillary Services (if available)
- 3.2. Delivery Period: The Delivery Period for both new and existing Projects shall commence on January 1, 2027, or January 1, 2028, and continue for the length of the Term.
- 3.3. Expected Commercial Operation Date (COD): If not already operational, the Company is pursuing Projects that can achieve an Expected Commercial Operation Date (COD) by December 31, 2026, or December 31, 2027 for the respective Delivery Periods.
- 3.4. Term: The maximum Term of the PPA shall be no more than ten (10) years. Bidder may offer Alternate Term proposals, provided the Term is no more than ten (10) years.
- 3.5. Size: The minimum acceptable Project size is 20 MWac for PJM interconnected Projects and 4 MWac for KPCO distribution interconnected Projects.
- 3.6. The Battery Storage Resource shall have the following Technical and Operational Requirements:
  - 3.6.1. A minimum of 4-hour energy storage system.
  - 3.6.2. Minimum size 4MW/4MWh; 1 MW for 4 Hours or 4 MWs for 1 Hour.
  - 3.6.3. Capability to operate at least 100 cycles per year with a maximum of 350 cycles per year. One cycle is the charge and discharge of a battery's total useable energy storage capability once a day.
  - 3.6.4. Must maintain at least a 98% availability for dispatch in each calendar year.
  - 3.6.5. Existing Projects must demonstrate a minimum roundtrip efficiency of 80%. New Projects must provide documentation to support the proposed technology can achieve a roundtrip efficiency of at least 80%.
  - 3.6.6. Must demonstrate an ability to comply with all PJM generator requirements including but not limited to metering, telemetry, voltage and reactive control, data specifications and capacity accreditation testing as defined in PJM's governing documents and manuals.
  - 3.6.7. Must meet PJM's Generation Capacity Resource Minimum Unit Specific Operating Parameters for Capacity Storage Resources.
- 3.8. Location: Projects must be physically located in the PJM Interconnection, LLC Region. The interconnection point with the PJM transmission system or KPCO's distribution electrical system will be the Point of Delivery.



3.9. Local Goods & Services: KPCO encourages the use of local goods or services sourced, in whole or in part, from one or more Kentucky businesses in the construction and/or operation of the Project or United States-based manufacturers using materials or product components made in Kentucky.

3.10. Project Development:

3.10.1. Bidder must have established site control of the proposed Project. Site control must be in the form of direct ownership, land lease, land lease option or easement. A letter of intent will not be an acceptable form of demonstrated site control.

3.10.2. Construction Labor: KPCO prefers that Bidders use union labor with an affiliation to the Building and Construction Trade Unions for the site preparation and construction of the Project. Proposals for non-union labor will be accepted.

3.10.3. Bidder shall use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work.

3.11. Interconnection:

3.11.1. Projects must be interconnected to PJM and have a completed PJM System Impact Study that remains active in the PJM queue.

OR

3.11.2. Projects must be interconnected to KPCO's distribution electrical system and must have a completed Distribution Impact Study from the KPCO Distribution Planning Group prior to the Proposal Due Date. In addition, the application for the Distribution Impact Study shall have a utility date and time stamp no later than September 22, 2023.

3.11.3. Bidders are responsible for following the established policies and procedures that are in effect regarding facility interconnection and operation with the interconnecting utility and PJM.

3.11.4. The Bidder is responsible for all costs associated with transmission interconnections and system upgrades as required by the interconnecting utility and PJM.

**4. Bid Price and Structure:**

4.1. Pricing provided should be fixed (no escalation) for the proposed monthly capacity, energy, and ancillary services payment. Additional bids may also be submitted if Bidder elects to propose alternate pricing structures.

4.2. Pricing must include all capital costs, fixed and variable O&M costs, taxes, augmentation costs due to degradation, and any other costs, as well as any Federal Tax Credit benefits, associated with delivering the full contracted output of the facility to the bid-specified Point of Delivery. Pricing must include the Company's exclusive use of the storage resource and the right to dispatch the storage resource at its discretion (within operating limitations) and for its benefit.



- 4.3. Optional Project size(s) provided cannot be contingent on Bidder selling the remaining portion of the Project to another party via a sale of a portion of the project company or a power purchase agreement.
- 4.4. Proposals must include a Bid Price for a Term of no more than 10-years.
- 4.5. All costs associated with distribution and/or transmission interconnection (as applicable) and interconnection facilities required for the Project, including any system upgrades, as required by the interconnecting utility or PJM up to the Point of Delivery, shall be included in the Bidder's pricing where appropriate under current FERC orders and rulings.
- 4.6. The Bid Price shall include any costs associated with meeting the credit requirements stated in the Form Term Sheet.
- 4.7. Associated Attributes. For purposes of this RFP, the sale of Energy Storage Products to KPCO under the long-term PPA includes the transfer of all capacity, energy, and ancillary services (if any), and technology attributes.
- 4.8. Prices must be firm, representing best and final bid. Proposals and bid pricing must be valid for at least 180 days after the Proposal Due Date.
- 4.9. Bidder must acknowledge and accept all responsibilities for PJM capacity performance requirements and penalties.

**5. RFP Schedule**

The schedule and deadlines set out in this section apply to this RFP. KPCO reserves the right to revise this schedule at any time and at its sole discretion.

RFP Issued	September 22, 2023
Proposal Due Date	November 8, 2023
Bidder(s) Selected for Final Contract Negotiations	January 31, 2024
Contract Execution	June 1, 2024
State Regulatory Filings	July 1, 2024
Receipt of Regulatory Approval Order(s)	December 15, 2024
Seller Conditions to NTP achieved	March 31, 2025
Notice to Proceed (NTP)	April 15, 2025
Commercial Operation for new Projects by	December 15, 2026 or December 15, 2027
PPA Delivery Period Start Date	January 1, 2027 or January 1, 2028



## 6. Proposal Submission

- 6.1. Bidders will be required to sign a Confidentiality Agreement (CA) prior to receiving detailed instructions on how to access the RFP Proposal documents and submit Proposals.
- 6.2. Bidder should request KPCO's Form CA by emailing ([KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)) and including the following documentation:
  - Supporting documentation of Bidder's experience in developing, engineering, procuring equipment, construction, and commissioning battery storage facilities (> Project bid size) in the United States or any portion of Canada and/or otherwise have demonstrated appropriate experience.
  - Verification of Site Control as required by Section 3.10.
  - PJM Projects: Completed PJM System Impact Study as required by Section 3.11.1.
  - KPCO Distribution Projects: Verification that the 1) Bidder expects to have a completed KPCO Distribution Impact Study as required by Section 3.11.2 prior to the Proposal Due Date, and 2) the application for the Distribution Impact Study had been submitted with a utility date-stamp and time-stamp of no later than September 15, 2023.
- 6.3. A complete Proposal shall be submitted electronically by the Proposal Due Date via a Box site.
- 6.4. Proposals must be complete in all material respects and received in the above-reference Box site no later than 3 p.m. EST on the Proposal Due Date as defined in Section 5.
- 6.5. The Company will send an email to the Bidder acknowledging its receipt of the Bidder's Proposal.
- 6.6. KPCO reserves the right to solicit additional proposals, if it deems necessary to do so, and the right to submit additional information requests to Bidders during the evaluation process.
- 6.7. Proposals and Bid Pricing must be valid for at least 180 days after the Proposal Due Date at which time Proposals shall expire unless the Bidder has been notified that its Proposal has been included in the Final Project Selection.
- 6.8. A Proposal should be as complete and comprehensive as possible to enable the Company to make a definitive and final evaluation of the Proposal's benefits to its customers without further contact with the Bidder.

## 7. Proposal Content

Bidders must submit the following information for each Proposal. All electronic versions of the Appendices must be uploaded to the designated Appendix folders in the Box site.



- 7.1. A completed Proposal Content Check Sheet (Appendix A).
- 7.2. An executive summary of the Project's characteristics and timeline, including any unique aspects and benefits.
- 7.3. A Completed Project Summary for Battery Storage Resource Projects, including the electronic Project Summary Form (link to form in Box), with the following attachments (Appendix B):
  - A completed Battery Storage Design Criteria Data Sheet
  - Interconnection Studies: Include a copy of ALL completed interconnection studies (i.e. System Impact Study, Distribution Impact Study, Facilities Study, etc.)
  - Site Layout: Include a diagram or map identifying anticipated placement of major equipment and other project facilities, including transmission layouts and Point of Delivery.
  - Site Control Documents: Include a copy of all leases, easements, or other ownership documentation (§3.10.1).
  - Permit Matrix: Attach a comprehensive permit matrix and status of all required permits, including, but not limited to Federal (USFWS, FAA), State, County, City, etc.
  - Environmental Report Summary: Summary of all environmental and other reports associated with the site.
  - Bidder must provide documentation showing they have substantial experience in operating and maintaining Battery Storage facilities of an equal or greater MW size in the United States or any portion of Canada within the jurisdiction of NERC, and (ii) meet all applicable requirements under applicable law for operating and maintaining the Battery Storage facility, including the requirements of an RTO / ISO. A Person will be deemed to have such substantial experience if it is a Person that has at least three (3) years of experience in operating and maintaining Battery Storage facilities of a similar MW size or greater in the United States or any portion of Canada within the jurisdiction of NERC.
- 7.4. A completed Appendix C (Proposal Bid Pricing).
- 7.5. A completed Appendix D (Bidder's Credit-Related Information and Bidder Profile) which shall include:
  - The identity of all persons and entities that have a direct or indirect ownership interest in the Project.
  - Copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available.
  - At least three third-party references.
- 7.6. Provide (i) an affirmative statement that Bidder's taking no exception to the Form Term



Sheet provided pursuant to this RFP; or (ii) a comprehensive list of exceptions to the terms and conditions contained in the applicable Form Term Sheet (Appendix E).

- 7.7. Bidder shall submit a Finance Plan on a separate form. Bidders must provide a proposed financing plan, including any letters of support, previous correspondence with banks / lenders intending to provide financing for the project. Also provide the proposed on-going debt-equity ratio to be carried by the project during construction and operation (Appendix F).
- 7.8. Completed (Appendix G) including:
- Use of Local Goods & Services: Plan for use of local goods or services sourced, in whole or in part, from one or more Kentucky businesses in the construction and/or operation of the Project. The bidder should identify these Kentucky resources in its proposal. (§3.9)
  - Use of Small and Diverse Suppliers: Plan to use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (§3.10.3)

## 8. Proposal Evaluation

Proposals must include ALL applicable content requirements as described in Section 7 – Proposal Content. KPCO will consider bids that are reliable, feasible and represent the reasonable cost means of satisfying the requirements of this RFP. The Evaluation Process, which includes three main steps, is central to the success of KPCO's RFP process.

Section 8.1: Eligibility and Threshold Requirements  
Section 8.2: Detailed Analysis  
Section 8.3: Final Project Selection

8.1 Eligibility and Threshold Requirements: If the Proposal does not qualify under any one of the Sections 8.1.1 – 8.1.10, the Bidder's Proposal will not qualify for this RFP and Bidder will be notified accordingly.

- 8.1.1 Proposal must be for a PPA and include the Energy Storage Products from a Battery Storage Resource (§3.1).
- 8.1.2 If not already operational, Projects must be able to achieve an Expected Commercial Operation Date (COD) by December 31, 2026, or December 31, 2027. (§3.3).
- 8.1.3 PJM interconnected Projects must have a minimum size of 20 MWac and KPCO Distribution interconnected projects must have a minimum size of 4 MWac. (§3.5).
- 8.1.4 Projects must be 1) physically located in the PJM Region (interconnected to the PJM Transmission system) or 2) interconnected to the KPCO distribution system. (§3.8).
- 8.1.5 Bidder must have established Site Control (§3.10.1).



- 8.1.6 Bidder must have 1) a completed PJM System Impact Study (§3.11.1) which remains active in the PJM queue, or 2) a completed KPCO Distribution Impact Study prior to the Proposal Due Date and the application for the Distribution Impact Study had been submitted no later than September 15, 2023 (§3.11.2).
  - 8.1.7 Bidder must provide a Bid Price for up to a 10-year Term (§4.4).
  - 8.1.8 Bidder or its affiliates must have completed the development, engineering, equipment procurement, and construction of a project, within the United States or Canada, of the same technology type, and of a size comparable to that of the Bidder's proposed Project and/or have demonstrated appropriate experience (§7.3).
  - 8.1.9 Bidder's exceptions to the Form Term Sheet, considered individually or in the aggregate, are minimally acceptable to the Company as a basis for further discussions (§7.6).
  - 8.1.10 Bidder is required to include requested financial information (Appendix D) so that AEP's credit department can conduct a financial wherewithal assessment. The Proposal price shall include any costs associated with meeting the Term Sheet credit requirements (§4.6).
- 8.2 Detailed Analysis: Proposals meeting the Eligibility and Threshold Requirements in Section 8.1 will move to the Detailed Analysis phase which is comprised of the Economic Analysis and the Non-Price Factor Analysis set forth below. The Economic Analysis will constitute 60% and the Non-Price Factor Analysis 40% of the overall evaluated value of each Proposal.
- 8.2.1 Economic Analysis: The Economic Analysis will include the calculation of three financial metrics which will provide multiple perspectives on cost and value. These will include Levelized Adjusted Net Cost of Energy (LANCOE), Levelized Adjusted Net Cost of Capacity (LANCOC), and a Value to Cost (V/C) Ratio.
- V/C Ratio will be the primary ranking metric, which will constitute 60% of the overall evaluated value of the Proposal in its Final Project Selection. Additional details of the three financial metrics described above are as follows:





$$\text{LANCOE (\$/MWh)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected Energy Production (MWh)}}$$

$$\text{LANCOC (\$/MW-Day)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected PJM Accredited Capacity in MW}}$$

$$\text{V/C Ratio} = \frac{\text{Total Value*}}{\text{Total Cost* (Present value of all Project costs*)}}$$

\* Defined below

**Total Cost:** The Company will determine the present value of the costs of each qualifying Proposal. This Total Cost calculation is based on a PSA Proposal's Bid Price (\$M) plus projected operations and maintenance costs (including land lease costs), fuel expense, Transmission and Congestion costs, tax expenses, decommissioning costs (including expected salvage), and applicable federal tax credits. For PPA bids, Total Costs will be evaluated based on the contract's demand charges, energy charges, and any other applicable charges. Other costs may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Total Value:** The Company will determine the present value of all the value streams of each qualifying Proposal. The value streams include the expected PJM revenues for the Proposal's energy, ancillary services and capacity, and the expected value of renewable energy certificates (RECs), and any applicable terminal value. Additionally, other value streams and financial metrics may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Transmission and Congestion Costs:** Transmission and Congestion Costs will be determined by the Company's transmission screening analysis. The transmission screening analysis will evaluate (i) transmission facilities cost and the network upgrade cost allocated to the Proposal, (ii) expected cost of transmission congestion and losses to the AEP KY's PJM load zone and (iii) cost of deliverability / curtailment risk mitigation that the Company calculates to ensure that the resources can be designated as firm resources to meet Company's capacity obligations. Transmission and Congestion Costs will be included in Total Cost calculations.

**Accredited Capacity:** Accredited Capacity shall be computed by adjusting a qualifying Proposal's applicable nameplate or contracted capacity by the expected adjustments that are used- or are expected to be used by the PJM RTO to determine the number of MW that the Company will be credited for use in meeting applicable capacity obligations. These adjustments will include, but are not limited to, summer and winter Effective Load Carrying Capability (ELCC) adjustments and forced outage rate adjustments.

8.2.2 Non-Price Factor Analysis: The Non-Price Factor Analysis will be comprised of the following:

8.2.2.1 Project Location.

8.2.2.2 Local economic impacts & benefits, Community relations, and use





of local and diverse suppliers. Please refer to <https://www.aep.com/b2b/suppliers> for guidelines.

- 8.2.2.3 The Project's Dispatch Flexibility including: Dispatch Range, Ramp Rates, Max Operational Hours, Minimum up & down times, and Ancillary Service potential.
- 8.2.2.4 Cost & technology risk including: Natural gas pricing, Firm fuel cost requirements, Storage Charging costs, & PJM Performance Assessment Interval (PAI) Risk.
- 8.2.2.5 Bidder's experience in developing similar projects as included in the Proposal as well as Bidder's operating history of similar generation facilities.
- 8.2.2.6 Status of interconnection process with PJM or KPCO distribution, as applicable.
- 8.2.2.7 The development status of Bidder's generation facility including, but not limited to, permitting status.
- 8.2.2.8 Bidder's exceptions to the Form Term Sheet. The Company will review the exceptions the Bidder proposed to the Company's form agreement with a focus on risks or additional costs to the Company. Prior agreement by AEP in previous negotiations does not constitute acceptance of an exception.

8.3 Final Project Selection: KPCO will consider bids that are reliable, feasible and represent a reasonable cost means of satisfying the requirements of this RFP. Based on the results of the Detailed Analysis described above, the Company will determine which Projects will be included in the Final Project Selection. The Company will notify Bidders whether or not their Proposal has been selected and negotiation of definitive agreements will commence with Bidders whose Proposals have been selected.

## 9. Reservation of Rights

A Proposal will be deemed accepted only when the Company and the selected Bidder have executed definitive agreements for the Company's purchase of Energy Storage Products from the Project. The Company has no obligation to accept any Proposal, whether the stated price in such Proposal is the lowest price offered. The Company may reject any Proposal in its sole discretion and without any obligation to disclose the reason or reasons for rejection.

By participating in the RFP process, each Bidder agrees that any and all information furnished by or on behalf of the Company in connection with the RFP is provided without any representation or warranty, express or implied, as to the usefulness, accuracy, or completeness of such information, and neither the Company nor its Affiliates nor any of their personnel or representatives shall have any liability to any bidder or its personnel or representatives relating to or arising from the use of or reliance upon any such information or any errors or omissions therein.



The Company reserves the right to modify or withdraw this RFP, to negotiate with any and all qualified Bidders to resolve any and all technical or contractual issues, or to reject any or all Proposals and to terminate negotiations with any Bidder at any time in its sole discretion. The Company reserves the right, at any time and from time to time, without prior notice and without specifying any reason and, in its sole discretion, to (a) cancel, modify or withdraw this RFP, reject any and all Proposals, and terminate negotiations at any time during the RFP process; (b) discuss with a Bidder and its advisors the terms of any Proposal and obtain clarification from the Bidder and its advisors concerning the Proposal; (c) consider all Proposals to be the property of the Company, subject to the provisions of this RFP relating to confidentiality and any confidentiality agreement executed in connection with this RFP, and destroy or archive any information or materials developed by or submitted to the Company in this RFP; (d) request from a Bidder information that is not explicitly detailed in this RFP, but which may be useful for evaluation of that Bidder's Proposal; (e) determine which Proposals to accept, favor, pursue or reject; (f) reject any Proposals that are not complete or contain irregularities, or waive irregularities in any Proposal that is submitted; (g) accept Proposals that do not provide the lowest evaluated cost; (h) determine which Bidders are allowed to participate in the RFP, including disqualifying a Bidder due to a change in the qualifications of the Bidder or in the event that the Company determines that the Bidder's participation in the RFP has failed to conform to the requirements of the RFP; (i) conduct negotiations with any or all Bidders or other persons or with no Bidders or other persons; (j) execute one or more definitive agreements with any Bidder, and (k) utilize a Bidder's completed Appendices and any supplemental information submitted by the Bidder in any its regulatory filings.

## **10. Confidentiality**

KPCO will take reasonable precautions and use reasonable efforts to maintain the confidentiality of all bids submitted. Bidders should clearly identify each page of information considered to be confidential or proprietary. KPCO reserves the right to release any proposals to agents or consultants for purposes of proposal evaluation. KPCO's disclosure policies and standards will automatically bind such agents or consultants. Regardless of the confidentiality, all such information may be subject to review by or in proceedings before the appropriate state authority, or any other governmental authority or judicial body with jurisdiction relating to these matters and may be subject to legal discovery. Under such circumstances, KPCO and AEPSC will make reasonable efforts to protect Bidder's confidential information.

## **11. Bidder's Responsibilities**

- 11.1 It is the Bidder's responsibility to submit all requested material by the deadlines specified in this RFP.
- 11.2 Bidder should make its proposal as complete and comprehensive as possible so that KPCO may make a definitive and final evaluation of the proposal's benefits to its customers without further contact with the Bidder.
- 11.3 Bidders are responsible for the timely completion of the project and are required to



submit proof of their financial and technical wherewithal to ensure the successful completion of the project.

11.4 The Bidder will be responsible for any expenses Bidder incurs in connection with the preparation and submission of a Proposal and/or any subsequent negotiations regarding a Proposal in response this RFP. KPCO will not reimburse Bidders for their expenses under any circumstances, regardless of whether the RFP process proceeds to a successful conclusion or is abandoned by KPCO at its sole discretion.

## 12. Contacts

General RFP Questions: All correspondence and questions, with the exception of interconnection related questions, regarding this RFP should be directed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

PJM Interconnection: All correspondence and questions regarding the PJM Interconnection process can be found at:

[PJM Interconnection](#)

KPCO Interconnection: All correspondence and questions regarding the KPCO Interconnection process can be found at:

[KPCO Interconnection](#)



## Appendix A

### Proposal Content Check Sheet

Section	Item	Completed
7.2	Executive Summary	
7.3	Appendix B (Project Summary)	
	- Completed electronic Project Summary Form (link to form in Box site)	
	- Company & General Project Information	
	- Energy Storage Project Information	
	- Interconnection	
	- Site Information	
	- Permits	
	- Preliminary Site Questions	
	- Bidder Projects Completed	
	<b>Attachments Required:</b>	
	- Battery Storage Design Criteria Data Sheet	
	- Interconnection Studies	
	- Site Layout (Map)	
	- Site Control Documents	
	- Permit Matrix	
	- Environmental Report Summary	
7.4	Appendix C (Proposal Bid Pricing)	
7.5	Appendix D (Bidder's Credit Related Information & Bidder's Profile)	
7.6	Appendix E (Exceptions to Form Term Sheet)	
7.7	Appendix F (Finance Plan)	
7.8	Appendix G (Local Goods & Services/Supplier Diversity/Community Support)	



## Appendix B Project Summary

### *Company Information*

Bidder (Company):		
Contact Name:		
Contact Title:		
Address:		
City:	State:	Zip Code:
Work Phone:	Cell Phone:	
Email Address:		
Is the Proposal being submitted through a partnership, joint venture, consortium, or other association? _____ If so, please identify all partners, joint ventures, members, or other entities or persons comprising same.		

### *General Project Information*

Project Name:		
Project site located (County, State):		
Will Project comply with the Prevailing Wage and Apprenticeship Requirements (PWAR) (Y/N):		
Interconnection Path (select all that apply)	KPCO (Y/N):	PJM (Y/N):
Expected Commercial Operation Date:	Availability %:	
Bidder confirms it has substantial Project site control including to the Point of Interconnection:	(Y/N)	

### *Energy Storage Project Information*

Storage Resource Description:				
Duration (Hours):				
Economic Life Assumption (Years):				
Project Capacity Values, MWac	Nameplate Rating	Winter Rating	Summer Rating	PJM Capacity Value
<i>Additional Storage Project information to be provided in the Battery Storage Design Criteria Data Sheet (BatteryStorageDesignCriteriaDataSheet.xls)</i>				





***Permits***

Has Bidder contacted all required permitting agencies and identified all permits for project?
Local (City/County) (Y / N):
State (Y / N):
Federal (Y / N):
Wildlife Resources (Federal, State, etc.) (Y / N):
Other (Y / N):
<i>Refer to Appendix B (Attachments Required) for the Permit Matrix requested.</i>

***Preliminary Site Questions (Y/N)***

Has the site been assessed for any environmental contamination? Describe any known environmental issues. If necessary, please describe on a separate attachment	
Are there any Tribal Lands or Tribal mineral ownership rights within Project boundary or vicinity?	
Are there any Federally or State owned or controlled lands within Project boundary or vicinity?	
Has The Nature Conservancy or any other non-governmental organizations been engaged?	
Are there Conservation Reserve Program, Wetland Reserve Program or other conservation easements within the Project boundary or vicinity?	
Are there any pollinator vegetation requirements associated with the Project?	
Is the Project located on a brownfield site (e.g. former coal mine)?	
<i>Refer to Appendix B (Attachments Required) for the Environmental Report Summary requested.</i>	



### ***Attachments Required***

- **ITC Strategy:** Summary of how the Project will qualify for Federal Tax Credits (e.g. ITCs).
- **Interconnection Studies:** Attach a copy of ALL completed interconnection studies (i.e. System Impact Study, Distribution Impact Study, Facilities Study, etc.).
- **Site Layout:** Include a diagram or map identifying anticipated placement of major equipment and other project facilities, including transmission layouts and Point of Delivery.
- **Site Control Documents:** Attach a copy of all leases, easements or other ownership documentation, including to point of interconnect.
- **Permit Matrix:** Attach a comprehensive permit matrix and status of all required permits, including, but not limited to Federal (USFWS, FAA), State, County, City, etc.
- **Environmental Report Summary:** The initial Proposals shall include a summary of all environmental and other reports associated with the site. (See **Note 1** for reports to summarize)

*Note 1: As applicable, the following reports are requested: Tier I / II Site Characterization Report, Environmental Work / Survey Plan, Bat Acoustic Survey Report, Avian Use Survey Report, Raptor Nest Survey Report, Prey-base Survey Report, Wetland, Waters and Playa Survey / Assessment Report, Whooping Crane Habitat Assessment Report, Lesser Prairie Chicken Survey / Assessment Report, Phase I Environmental Site Assessment Report, Historical and Cultural Resource Survey / Assessment Report, All Other Species and Environmental Resource Survey and Study Reports, Record and Notes of all Federal or State Resource Agency Correspondence and Meetings, Turbine and Environmental Resource Shapefiles (.kmz format), and Bird and Bat Conservation Strategy and Eagle Conservation Plan (if available).*







## Appendix C

### *Base Proposal Bid Pricing<sup>1</sup>*

Expected COD by	PPA Term <sup>2</sup>	Maximum Annual Cycles	Capacity Payment (\$/kW-month)	Alternative Proposed PPA Price Structure
			\$	

*Note 1: Optional size(s) provided cannot be contingent on Bidder selling the remaining portion of the Project to another party via a sale of a portion of the project company or a power purchase agreement.*

*Note 2: Proposal must be no longer than a 10-year Term. In addition, alternate terms (<10 years) may be submitted.*

***Please answer the following questions related to the bid price above:***

Does Bid Price include the use of union labor?	(Y/N):
--	--------

### *Alternate Bid Pricing (not required)*

Expected COD by	PPA Term <sup>2</sup>	Maximum Annual Cycles	Capacity Payment (\$/kW-month)	Alternative Proposed PPA Price Structure
			\$	

Does Bid Price include the use of union labor?	(Y/N):
--	--------

Expected COD by	PPA Term <sup>2</sup>	Maximum Annual Cycles	Capacity Payment (\$/kW-month)	Alternative Proposed PPA Price Structure
			\$	

Does Bid Price include the use of union labor?	(Y/N):
--	--------



## Appendix D

### Bidder's Credit-Related Information

Full Legal Name of the Bidder:
Type of Organization (Corporation, Partnership, etc.):
Bidder's % Ownership in Proposed Project (as of proposal submittal date):
If Bidder's Ownership is <100%, identity of all persons and entities that have a direct or indirect ownership interest in the Project:
Full Legal Name(s) of Parent Corporation: 1. 2. 3.
Entity Providing Credit Support on Behalf of Bidder (if applicable): Name: Address: City: Zip Code:
Type of Relationship of Credit Support Provider:
Current Senior Unsecured Debt Rating: 1. S&P: 2. Moody's:
Bank References & Name of Institution:
Bank Contact: Name: Title: Address: City: Zip Code: Phone Number:
Legal Proceedings: As a separate attachment, please list all lawsuits, regulatory proceedings, or arbitration in which the Bidder or its affiliates or predecessors have been or are engaged that could affect the Bidder's performance of its bid. Identify the parties involved in such lawsuits, proceedings, or arbitration, and the final resolution or present status of such matters.
Financial Statements: Please provide copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available. If available electronically, please provide link.



### Bidder's Profile

Please list Bidder's Affiliate companies:

- 1.
- 2.
- 3.
- 4.

### References

1. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
2. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
3. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
4. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:



## **Appendix E**

### **Exceptions to Form Term Sheet**

*See Section 6.1 for instructions to obtain the applicable Form Power Purchase Agreement.*

*Bidder shall include a mark up to the Form Power Purchase Agreement as part of its Proposal.*



## **Appendix F**

### **Financing Plan**

*Bidder to include a description of its financing plan.*



## Appendix G

### *Local Goods & Services*

Describe how the Bidder will be using local goods or services sourced whole or in part from one or more Kentucky businesses, as applicable, to the extent practical in the purchase of equipment and material, or services for the Project:

### *Use of Small and Diverse Suppliers*

Describe plan to use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (<https://www.aep.com/b2b/suppliers>):

### *Community Support*

Please provide a description of any economic benefits to local governments and businesses as well as local property and sales tax benefits. Include any executed agreements with the municipality, if available:



American Electric Power Service Corporation  
as agent for  
Kentucky Power Company

**Request for Proposals**  
**Power Purchase Agreements**  
**(PPAs)**

from Qualified Bidders

for  
**New and Existing**  
**Thermal Energy Resources**

Kentucky Power Company is seeking resources (e.g. wind, solar, thermal, battery storage) via Power Purchase Agreements (PPAs) totaling up to:

Approximately 875 MW of Accredited Summer Capacity, and  
Approximately 1,300 MW of Accredited Winter Capacity

**This RFP is associated with Thermal Energy Resources only.**

Other RFPs may be found at the Web Address noted below.

RFP Issued: September 22, 2023  
Proposals Due: November 8, 2023

Web Address:

<https://www.kentuckypower.com/rfp>





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## Attachments

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**BACKGROUND**

Kentucky Power Company (“KPCO” or the “Company”) is pursuing additional generation resources via three Request for Proposals (“RFPs”) to satisfy the need for additional capacity resources consistent with their 2022 Integrated Resource Plan as follows:

- ~875 MW of Accredited Summer Capacity, *and*
- ~1,300 MW of Accredited Winter Capacity

Resources contracted for as the result of the RFPs will be used to satisfy both the needs of the Summer and Winter Capacity volumes outlined above.

**The Company will evaluate each of the RFPs, individually and collectively, to determine the portfolio of projects that it elects to move forward with.**

PPA	Wind and Solar RFP seeking energy, capacity, environmental attributes, and ancillary services via one or more PPAs.
<b>Thermal</b>	<b>Thermal RFP seeking energy, capacity, and ancillary services via one or more PPAs.</b>
Standalone Storage (PPA)	Standalone Storage RFP seeking energy, capacity, and ancillary services via one or more PPAs with a Battery Storage Resource.

**This RFP is associated with the Thermal RFP only.**

The PPA RFP and Standalone Storage RFPs may be found at [www.kentuckypower.com/rfp](http://www.kentuckypower.com/rfp).

**1. Introduction**

American Electric Power Service Corporation (AEPSC) and Kentucky Power Company (KPCO, Company or Kentucky Power) are subsidiaries of American Electric Power Company, Inc. (AEP).

AEPSC is administering this Request for Proposals (RFP) on behalf of KPCO. Affiliates of AEP and/or KPCO are not permitted to participate in this RFP.

American Electric Power is one of the largest electric utilities in the United States, delivering electricity and custom energy solutions to approximately 5.6 million customers in 11 states. AEP owns the nation's largest electricity transmission system, a more than 40,000-mile network that includes more 765-kilovolt extra-high voltage transmission lines than all other U.S. transmission systems combined. AEP also operates 225,000 miles of distribution lines. AEP ranks among the nation's largest generators of electricity, owning approximately 25,000 megawatts of generating capacity in the U.S. AEP also supplies over 5,300 megawatts of renewable energy to customers. AEP's utility units operate as AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana, and east Texas). AEP's headquarters are in Columbus, Ohio. More information about AEP can be accessed by visiting [www.aep.com](http://www.aep.com).



Kentucky Power Company, headquartered in Ashland, KY, encompasses the AEP service territory in Eastern Kentucky. KPCO serves approximately 163,000 customers. KPCO has 1,263 miles of transmission and 10,074 miles of distribution lines. Additional information regarding KPCO can be accessed by visiting [www.kentuckypower.com](http://www.kentuckypower.com).

## 2. RFP Overview

- 2.1 KPCO is requesting Proposals which will result in obtaining approximately: 875 MW of PJM Accredited Summer Capacity and 1,300 MW of PJM Accredited Winter Capacity from generation resources to meet overall capacity need. The Projects sought through this RFP are to satisfy the requirements identified in the 2022 IRP. Depending on the results of the RFP, the Company may pursue different quantities or types of resources from those specified in the IRP. The minimum nameplate rated bid size for this RFP is 20 MWac.
- 2.2 The Resources requested via this RFP will be acquired via a power purchase agreement (PPA) for purchase of the Energy Products (Energy, Capacity, and Ancillary Services) produced by a Natural Gas or Coal resource. Proposals for existing operational projects are eligible to be submitted into the RFP.
- 2.3 Affiliates of AEP and/or KPCO may not participate in this RFP.
- 2.4 KPCO may execute one or more PPAs for Coal or Gas as a result of this RFP.
- 2.5 Any Project(s) which KPCO selects as a result of this RFP will be subject to KPCO's receipt of the necessary regulatory approvals, including regulatory approvals from the Kentucky Public Service Commission (KPSC).
- 2.6 All questions regarding this RFP should be emailed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

The Company will post a list of the non-confidential "Questions and Answers" on its website on a weekly basis following the issuance of the RFP until the Proposal Due Date.

<https://www.kentuckypower.com/rfp>

- 2.7 This RFP is not a commitment by the Company to contract with any Project and it does not bind the Company or its Affiliates in any manner. The Company in its sole discretion will determine which Bidders, if any, it wishes to engage in negotiations with that may lead to PPAs with one or more selected Projects.

## 3. Product Description and Requirements

- 3.1 **Product:** The Company is seeking to purchase Energy Products from a Thermal Energy (Coal or Gas) resource for delivery into PJM (PJM Interconnection L.L.C.) via a PPA. Bidder must acknowledge and accept all responsibilities for PJM capacity performance



requirements and penalties. For guidance on individual Resources refer to Section 4. Energy Products shall include:

- 3.1.1 Energy
- 3.1.2 Capacity
- 3.1.3 Ancillary Services (if available)

- 3.2 **Expected Commercial Operation Date (COD):** The Company is pursuing both operational Projects and Projects that can achieve an Expected Commercial Operation Date (COD) December 15, 2027.
- 3.3 **Term:** The minimum Term for Coal and Gas PPAs shall be seven (7) years and the maximum Term shall be no more than ten (10) years. Bidder may offer Alternate Term proposals provided the Term is between seven (7) and (10) years.
- 3.4 **Delivery Period:** The Delivery Period shall commence as early as May 1, 2025, and no later than June 1, 2028.

	<b>PPA Delivery Period Commencement</b>
<b>Existing Projects</b>	as early as 5/1/2025 and no later than 6/1/2028
<b>New Projects with COD in 2026</b>	as early as 5/1/2026 and no later than 6/1/2028
<b>New Projects with COD in 2027</b>	as early as 5/1/2027 and no later than 6/1/2028

- 3.5 **Target Size:** This RFP is seeking approximately: 875 MW of Accredited Summer Capacity and 1,300 MW of Accredited Winter Capacity from Thermal resources to meet overall capacity need. The ultimate amount of any one type of resource selected from all RFPs will depend on AEP's bid selection process.
- 3.6 **Minimum Acceptable Project Size:** The minimum acceptable Project size is 20 MWac for PJM interconnected Projects.
- 3.7 **Location:** Projects must be physically located in the PJM Interconnection, LLC Region and interconnected to the PJM Transmission system. The interconnection point with the PJM transmission system will be the Point of Delivery.
- 3.8 **Local Content:** KPCO encourages Bidders to use local goods or services sourced, in whole or in part, from one or more Kentucky businesses where feasible. The bidder should identify these resources in their proposal.
- 3.9 **Project Development:**
  - 3.9.1 Bidder must have established site control of the proposed Project. Site control must be in the form of direct ownership, land lease, land lease option or easement. A letter of intent will not be an acceptable form of demonstrated site control.



3.9.2 Construction Labor: KPCO prefers that Bidders use union labor with an affiliation to the Building and Construction Trade Unions for the site preparation and construction of the Project. Proposals for non-union labor will be accepted.

3.9.3 Bidder shall use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work.

### 3.10 Interconnection:

3.10.1 Project must be interconnected to PJM.

3.10.1.1 Bidder must have a completed PJM System Impact Study which remains active in the PJM Queue

3.10.1.2 Bidders are required to provide the current status of the Project's interconnection queue position in submitted bid materials. KPCO requires further updates on the status of the Project's interconnection queue position if new information arises during the RFP process that may impact the delivery timeline or costs of the project (through either direct coordination with the RTO or as a result of new regulation, guidance, or policy changes).

3.10.1.3 The interconnection point with the PJM transmission system will be the Point of Delivery.

3.10.1.4 Bidders are responsible for following the established policies and procedures that are in effect regarding facility interconnection and operation with the interconnecting utility and PJM, as applicable.

3.10.1.5 The Bidder is responsible for all costs associated with transmission interconnections and system upgrades, including affected system upgrades (if any), as required by the interconnecting utility or PJM, as applicable.

3.10.1.6 Bidders seeking to propose a technology that is not currently reflected in their interconnection agreement or interconnection study documentation must clearly describe the timing and process (including reference to the applicable RTO tariff and/or manual) needed to make such a change in fuel type.

## 4. Bid Price and Structure

4.1. Gas & Coal Resources: Bidders shall specify in detail the pricing associated with each Energy Product it wishes to include in its proposal.

4.1.1. Pricing provided should be fixed (no escalation) for the proposed monthly capacity payment, while pricing for variable O&M should clearly state the assumed annual escalation.

For start charges, Bidders must clearly state the proposed pricing structure (e.g., cost for each charge; a certain minimum threshold of charges included in base pricing, with a cost for each charge above the threshold, etc.).

For gas charges, Bidders must clearly state its assumption regarding gas supply as well as the various cost components of gas charges, including: transportation



fee, management fee, fuel index, and total delivered price formula capturing each of the aforementioned elements (e.g.,  $HR \times [(FI + Transportation + Mgmt)/(1 - loss\ factor)]$ ).

- 4.1.2. Pricing must include all capital costs, fixed and variable O&M costs, taxes and any other costs associated with delivering the full contracted energy output of the facility to the bid-specified Point of Delivery.
- 4.2. The Company will pay for Energy Products prior to the Delivery Period at the Real-Time Locational Marginal Price (\$/MWh) at the Point of Delivery minus any associated PJM charges.
- 4.3. All costs associated with transmission interconnection (as applicable) and interconnection facilities required for the Project, including any system upgrades, and affected system upgrades, as required by KPCO or PJM shall be included in the Bidder's pricing where appropriate under current FERC orders and rulings.
- 4.4. Prices must be firm, representing best and final bid. Proposals and bid pricing must be valid for acceptance at least 180 days after the Proposal Due Date.
- 4.5. Bidder must acknowledge and accept all responsibilities for PJM capacity performance requirements and penalties.

**5. RFP Schedule**

The schedule and deadlines set out in this section apply to this RFP. KPCO reserves the right to revise this schedule at any time and at its sole discretion.

RFP Issued	September 22, 2023
Proposal Due Date	November 8, 2023
Bidder(s) Selected for Final Contract Negotiations	January 31, 2024
Contract Execution	June 1, 2024
State Regulatory Filings	July 1, 2024
Receipt of Full Regulatory Approval Order(s)	December 15, 2024
Seller Conditions to NTP achieved	March 31, 2025
Notice to Proceed (NTP)	April 15, 2025
Commercial Operation for new Projects by	December 15, 2027
PPA Delivery Period Start Date	as early as May 1, 2025 and no later than June 1, 2028

**6. Proposal Submission**

6.1. Bidders will be required to sign a Confidentiality Agreement (CA) prior to receiving detailed instructions on how to access the RFP Proposal documents and submit Proposals.

6.2. Bidder should request KPCO's Form CA by emailing



[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com) and including the following documentation:

- Supporting documentation of Bidder's experience in developing, engineering, procuring equipment, construction, and commissioning Thermal electric generation facilities (> Project bid size) in the United States or any portion of Canada and/or otherwise have demonstrated appropriate experience.
- Verification of Site Control as required by Section 3.9.1.
- Completed PJM System Impact Study as required by Section 3.10.1.1

6.3. A completed Proposal shall be submitted electronically by the Proposal Due Date via a Box site. **More detailed information on how to submit the proposals will be provided upon a completed Confidentiality Agreement.**

6.4. Proposals must be complete in all material respects and received in the above-reference Box site no later than 3 p.m. EST on the Proposal Due Date as defined in Section 5.

6.5. The Company will send an email to the Bidder acknowledging its receipt of the Bidder's Proposal.

6.6. KPCO reserves the right to solicit additional proposals, if it deems necessary to do so, and the right to submit additional information requests to Bidders during the evaluation process.

6.7. Proposals and bid pricing must be valid for at least 180 days after the Proposal Due Date at which time Proposals shall expire unless the Bidder has been notified that its Proposal has been included in the Final Project Selection.

6.8. A Proposal should be as complete as possible to enable the Company to make a definitive and final evaluation of the Proposal's benefits to its customers without further contact with the Bidder.

## 7. Proposal Content

Bidders must submit the following information for each Proposal. All electronic versions of the Appendices must be uploaded to the designated Appendix folders in the Box site.

- 7.1. A completed Proposal Content Check Sheet (Appendix A).
- 7.2. An executive summary of the Project's characteristics and timeline, including any unique aspects and benefits.
- 7.3. A Completed Project Summary including the electronic Project Summary Form (link to form in Box), which must include the following attachments (Appendix B):
  - Interconnection Studies: Include a copy of all completed interconnection studies (i.e., System Impact Study, Facilities Study, etc.).





- Site Layout: Include a diagram or map identifying anticipated placement of major equipment and other project facilities, including transmission layouts and point of interconnection.
- Site Control Documents: Attach a copy of all leases, easements or other ownership documentation including to the point of interconnection.
- Permit Matrix: Attach a comprehensive permit matrix that lists and describes all required permits, including, but not limited to, Federal (USFWS, FAA), State, County, City, etc. For each permit, include the status, duration, planned steps, any known mitigation requirements, critical milestones and timelines.
- Environmental Report Summary: Attach a summary of all environmental studies, reports and agency meetings associated with the Project.
- Bidder must provide documentation showing they have substantial experience in operating and maintaining electric generation facilities of an equal or greater MW size in the United States or any portion of Canada within the jurisdiction of NERC, and (ii) meet all applicable requirements under applicable law for operating and maintaining the wind or solar (as applicable) facilities, including the requirements of an RTO / ISO. A Person will be deemed to have such substantial experience if it is a Person that has at least three (3) years of experience in operating and maintaining electric generation facilities of a similar MW size or greater in the United States or any portion of Canada within the jurisdiction of NERC.

7.4. A completed Proposal Bid Pricing (Appendix C).

7.5. A completed Bidder's Credit-Related Information and Bidder Profile (Appendix D) which shall include:

- The identity of all persons and entities that have a direct or indirect ownership interest in the Project.
- Copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available.
- At least three third-party references.

7.6. Provide (i) an affirmative statement that Bidder's taking no exception to the Form of Power Purchase Agreement provided pursuant to this RFP; or (ii) a comprehensive list of exceptions to the terms and conditions contained in the applicable Form Term Sheet (Appendix E).

7.7. All required Thermal Resource Analysis / Study Information. (Appendix F).

7.8. A completed Appendix G, which must include:

- Use of Local Goods & Services: Plan for use of local goods or services sourced, in whole or in part, from one or more Kentucky businesses in the construction and/or operation of the Project. The bidder should identify these Kentucky resources in its proposal. (§3.8)
- Use of Small and Diverse Suppliers: Plan to use reasonable efforts to utilize



and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (§3.9.3)

- 7.9. Bidder shall submit a Finance Plan on a separate form. Bidders must provide a proposed financing plan, including any letters of support, previous correspondence with banks / lenders intending to provide financing for the project. Also provide the proposed on-going debt-equity ratio to be carried by the project during construction and operation (Appendix H).
- 7.10. Bidder shall provide basic Environmental, Wildlife, and Site Information material (Appendix I).
- 7.11. Bidders must ensure that proposals for operational projects contain historical operational information over the last five years (or less if commercial operation date was more recent), including (Appendix J):
- Commercial operation date
  - Production availability as well as downtime issues and outlook
  - Congestion and curtailment
  - Environmental issues and violations
  - Safety issues
  - NERC violations and resolution
  - Major scheduled and unscheduled maintenance matters as well as resolution
  - Community relations and external affairs issues
  - Environmental and permitting summary
  - List and description of any outstanding legal matters
  - Confirmation of whether the project holds firm transmission service

## 8. Proposal Evaluation

Proposals must include ALL applicable content requirements as described in Section 7 – Proposal Content. KPSC will consider bids that are reliable, feasible and represent the reasonable cost means of satisfying the requirements of this RFP. The Evaluation Process, which includes three main steps, is central to the success of KPSC's RFP process.

Section 8.1: Eligibility and Threshold Requirements

Section 8.2: Detailed Analysis

Section 8.3: Final Project Selection

**8.1 Eligibility and Threshold Requirements:** If the Proposal does not qualify under any one of the Sections 8.1.1 – 8.1.11, the Bidder will not qualify for this RFP and will be notified accordingly.

8.1.1 Proposal must be for a Power Purchase Agreement and include the



Energy Products from a Coal or Gas energy resource (§3.1).

8.1.2 Existing Assets: The PPA Term commencement can be as early as 5/1/2025 but no later than 6/1/2028 (§3.4).

New Projects with 2026 COD: The PPA Term commencement can be as early as 5/1/2026 but no later than 6/1/2028 (§3.4).

New Projects with 2027 COD: The PPA Term commencement can be as early as 5/1/2027 but no later than 6/1/2028 (§3.4).

8.1.3 Projects must have a minimum size of 20 MWac (§3.6).

8.1.4 Projects must interconnect to PJM. (§3.10.1)

8.1.5 Bidder must have established Site Control (§3.9.1).

8.1.6 Bidder must have a completed PJM System Impact Study which remains active in the PJM queue (§3.10.1.1).

8.1.7 Bidder must provide a Bid Price (Tolling Agreement with Firm Transportation Agreement) (§4.1.1, §4.1.2).

8.1.8 Bidder must provide a Bid Price for at least a 7-year Term, but no more than a 10-year Term (§3.3).

8.1.9 Bidder shall have completed the development, engineering, equipment procurement and construction of a thermal project within the United States or Canada of size equal to or greater than the Bidder's proposed Project and have demonstrated appropriate operating experience (§6.2).

8.1.10 Bidder's exceptions to the applicable Form Term Sheet, considered individually or in the aggregate, are minimally acceptable to the Company as a basis for further discussions (§7.6).

8.1.11 Bidder is required to include requested financial information (Appendix D) so that AEP's credit department can conduct a financial wherewithal assessment. The Proposal price shall include any costs associated with meeting the Term Sheet credit requirements (§7.5).

8.2 Detailed Analysis: Proposals meeting the Eligibility and Threshold Requirements in §8.1 will move to the Detailed Analysis phase, which is comprised of the Economic Analysis and the Non-Price Factor Analysis set forth below.

8.2.1 Economic Analysis: The Economic Analysis will include the calculation of three financial metrics which will provide multiple perspectives on cost and value. These will include Levelized



Adjusted Net Cost of Energy (LANCOE), Levelized Adjusted Net Cost of Capacity (LANCOC), and a Value to Cost (V/C) Ratio.

V/C Ratio will be the primary ranking metric, which will constitute 60% of the overall evaluated value of the Proposal in its Final Project Selection. Additional details of the three financial metrics described above are as follows:



$$\text{LANCOE (\$/MWh)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected Energy Production (MWh)}}$$

$$\text{LANCOC (\$/MW-Day)} = \frac{\text{Total Cost* (Present value of all Project costs, net of Total Value*)}}{\text{Present Value of Projected PJM Accredited Capacity in MW}}$$

$$\text{V/C Ratio} = \frac{\text{Total Value*}}{\text{Total Cost* (Present value of all Project costs*)}}$$

\* Defined below

**Total Cost:** The Company will determine the present value of the costs of each qualifying Proposal. This Total Cost calculation is based on a PSA Proposal's Bid Price (\$M) plus projected operations and maintenance costs (including land lease costs), fuel expense, Transmission and Congestion costs, tax expenses, decommissioning costs (including expected salvage), and applicable federal tax credits. For PPA bids, Total Costs will be evaluated based on the contract's demand charges, energy charges, and any other applicable charges. Other costs may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Total Value:** The Company will determine the present value of all the value streams of each qualifying Proposal. The value streams include the expected PJM revenues for the Proposal's energy, ancillary services and capacity, and the expected value of renewable energy certificates (RECs)(If applicable), and any applicable terminal value. Additionally, other value streams and financial metrics may be included based on the Company's discretion to appropriately evaluate each Proposal to ensure the Company is comparing all qualifying Proposals on an equivalent basis.

**Transmission and Congestion Costs:** Transmission and Congestion Costs will be determined by the Company's transmission screening analysis. The transmission screening analysis will evaluate (i) transmission facilities cost and the network upgrade cost allocated to the Proposal, (ii) expected cost of transmission congestion and losses to the AEP KY's PJM load zone and (iii) cost of deliverability / curtailment risk mitigation that the Company calculates to ensure that the resources can be designated as firm resources to meet Company's capacity obligations. Transmission and Congestion Costs will be included in Total Cost calculations.

**Accredited Capacity:** Accredited Capacity shall be computed by adjusting a qualifying Proposal's applicable nameplate or contracted capacity by the expected adjustments that are used- or are expected to be used by the PJM RTO to determine the number of MW that the Company will be credited for use in meeting applicable capacity obligations. These adjustments will include, but are not limited to, summer and winter Effective Load Carrying Capability (ELCC) adjustments and forced outage rate adjustments.

8.2.2 Non-Price Factor Analysis: The Non-Price Factor Analysis will be comprised of the following:

8.2.2.1 Project Location

8.2.2.2 Local economic impacts & benefits, Community relations, and use of local and diverse suppliers. Please refer to <https://www.aep.com/b2b/suppliers> for guidelines.



- 8.2.2.3 The Projects' Dispatch Flexibility including: Dispatch Range, Ramp Rates, Max Operational Hours, Minimum up & down times, and Ancillary service potential
- 8.2.2.4 Cost & Technology Risk including: Natural gas pricing, Firm fuel cost requirements, O&M, Storage Charging costs, & PJM Performance Assessment Interval (PAI) Risk
- 8.2.2.5 Bidder's experience in developing similar projects as included in the Proposal as well as Bidder's operating history of similar generation facilities
- 8.2.2.6 Status of interconnection process with PJM
- 8.2.2.7 The development status of Bidder's generation facility including, but not limited to, permitting status
- 8.2.2.8 Bidder's exceptions to the Form Term Sheet. The Company will review the exceptions the Bidder proposed to the Company's form agreement with a focus on risks or additional costs to the Company. Prior agreement by AEP in previous negotiations does not constitute acceptance of an exception

**8.3 Final Project Selection:** KPCO will consider bids that are reliable, feasible, and represent a reasonable cost means of satisfying the requirements of this RFP. Based on the results of the Detailed Analysis described above in Section 8.2, the Company will determine which Projects will be included in the Final Project Selection. The Company will notify Bidders whether or not their Proposal has been selected and negotiation of definitive agreements will commence with Bidders whose Proposals have been selected.

## **9. Reservation of Rights**

A Proposal will be deemed accepted only when the Company and the selected Bidder have executed a Power Purchase Agreement. The Company has no obligation to accept any Proposal, whether or not the stated price in such Proposal is the lowest price offered, and the Company may reject any Proposal in its sole discretion and without any obligation to disclose the reason or reasons for rejection.

By participating in the RFP process, each bidder agrees that any and all information furnished by or on behalf of the Company in connection with the RFP is provided without any representation or warranty, express or implied, as to the usefulness, accuracy, or completeness of such information, and neither the Company nor its Affiliates nor any of their personnel or representatives shall have any liability to any bidder or its personnel or representatives relating to or arising from the use of or reliance upon any such information or any errors or omissions therein.



The Company reserves the right to modify or withdraw this RFP, to negotiate with any and all qualified Bidders to resolve any and all technical or contractual issues, or to reject any or all Proposals and to terminate negotiations with any Bidder at any time in its sole discretion. The Company reserves the right, at any time and from time to time, without prior notice and without specifying any reason and, in its sole discretion, to (a) cancel, modify or withdraw this RFP, reject any and all Proposals, and terminate negotiations at any time during the RFP process; (b) discuss with a Bidder and its advisors the terms of any Proposal and obtain clarification from the Bidder and its advisors concerning the Proposal; (c) consider all Proposals to be the property of the Company, subject to the provisions of this RFP relating to confidentiality and any confidentiality agreement executed in connection with this RFP, and destroy or archive any information or materials developed by or submitted to the Company in this RFP; (d) request from a Bidder information that is not explicitly detailed in this RFP, but which may be useful for evaluation of that Bidder's Proposal; (e) determine which Proposals to accept, favor, pursue or reject; (f) reject any Proposals that are not complete or contain irregularities, or waive irregularities in any Proposal that is submitted; (g) accept Proposals that do not provide the lowest evaluated cost; (h) determine which Bidders are allowed to participate in the RFP, including disqualifying a Bidder due to a change in the qualifications of the Bidder or in the event that the Company determines that the Bidder's participation in the RFP has failed to conform to the requirements of the RFP; (i) conduct negotiations with any or all Bidders or other persons or with no Bidders or other persons; (j) execute one or more definitive agreements with any Bidder, and (k) utilize a Bidder's completed Appendices and any supplemental information submitted by the Bidder in any of its regulatory filings.

## **10. Confidentiality**

KPCO will take reasonable precautions and use reasonable efforts to maintain the confidentiality of all bids submitted. Bidders should clearly identify each page of information considered to be confidential or proprietary. KPCO reserves the right to release any proposals to agents or consultants for purposes of proposal evaluation. KPCO's disclosure policies and standards will automatically bind such agents or consultants. Regardless of the confidentiality, all such information may be subject to review by or in proceedings before the appropriate state authority, or any other governmental authority or judicial body with jurisdiction relating to these matters and may be subject to legal discovery. Under such circumstances, KPCO and AEPSC will make reasonable efforts to protect Bidder's confidential information.

## **11. Bidder's Responsibilities**

- 11.1. It is the Bidder's responsibility to submit all requested material by the deadlines specified in this RFP.
- 11.2. Bidder should make its proposal as complete and comprehensive as possible so that KPCO may make a definitive and final evaluation of the proposal's benefits to its customers without further contact with the Bidder.



11.3. Bidders are responsible for the timely completion of the project and are required to submit proof of their financial and technical wherewithal to ensure the successful completion of the project.

11.4. The Bidder will be responsible for any expenses Bidder incurs in connection with the preparation and submission of a Proposal and/or any subsequent negotiations regarding a Proposal in response to this RFP. KPCO will not reimburse Bidders for their expenses under any circumstances, regardless of whether the RFP process proceeds to a successful conclusion or is abandoned by KPCO at its sole discretion.

## 12. Contacts

General RFP Questions: All correspondence and questions, with the exception of interconnection related questions, regarding this RFP should be directed to:

[KPCO2023RFP@aep.com](mailto:KPCO2023RFP@aep.com)

PJM Interconnection: All correspondence and questions regarding the PJM Interconnection process can be found at:

[PJM Interconnection](#)





## Appendix A

### Proposal Content Check Sheet

Section	Item	Completed
7.2	Executive Summary	
7.3	Appendix B (Project Summary)	
	- Completed Electronic Project Summary Form (Link in Box Site)	
	- Company & Project Information	
	- Interconnection (PJM)	
	- Site Information	
	- Permits	
	- Preliminary Site Questions	
	- Projects Completed of the Same Technology Type	
	Attachments Required:	
	- Interconnection Studies	
	- Site Layout	
	- Site Control Documents	
	- Permit Matrix	
	- Environmental Report Summary	
7.4	Appendix C (Proposal Bid Pricing)	
7.5	Appendix D (Bidder's Credit Related Information)	
7.6	Appendix E (Exceptions to Form Term Sheet)	
7.7	Appendix F (Thermal Resource Information)	
7.8	Appendix G (Local Goods & Services / Small & Diverse Suppliers / Community Support)	
7.9	Appendix H (Financing Plan)	
7.10	Appendix I (Environmental / Wildlife / Site Information)	
7.11	Appendix J (Operational Project Information)	



## Appendix B Project Summary

### *Company Information*

Bidder (Company):		
Contact Name:		
Contact Title:		
Address:		
City:	State:	Zip Code:
Work Phone:	Cell Phone:	
Email Address:		
Is the Proposal being submitted through a partnership, joint venture, consortium, or other association? _____ If so, please identify all partners, joint ventures, members, or other entities or persons comprising same.		
Additional company information to be provided in Appendix D – Bidder's Credit-Related Information and Bidder's Profile		

### *General Project Information*

Project Name:	
Resource Type:	
<i>(e.g. Coal, NG Simple Cycle, Combined Cycle, etc.):</i>	
Project site located (County, State):	
PJM Queue #:	PJM Study Status:
Expected Commercial Operation Date:	
Design Life (Years); if Operational Project, also include estimated remaining useful life:	
Bidder confirms that it has substantial Project site control (including to the Point of Interconnection:	(Y/N):



### ***Thermal Project Information***

Fuel Type (Primary / Secondary):				
Project Capacity Values, MWac	Nameplate Rating	Winter Rating	Summer Rating	PJM Capacity Value
<i>Additional Thermal Project information to be provided in Appendix F – Thermal Resource Information</i>				

### ***Interconnection (PJM)***

PJM Queue #:	Substation Name / Voltage:
Feasibility Study Complete (Y/N):	Feasibility Study Report Date:
System Impact Study Complete (Y/N):	System Impact Study Report Date:
Facilities Study Complete (Y/N):	Anticipated Facilities Study Completion Date:
Total Network Upgrade Costs (including Affected System Network Upgrade Costs) Allocated to Project from System Impact Study or Facilities Study if completed:	\$
Total Direct Interconnection costs from System Impact Study or Facilities Study if completed:	\$
Point of Interconnection with:	
Types of transmission service (NRIS, ERIS)	
PJM Interconnection Status, including description of any communication with PJM specifically indicating project status related to recently proposed PJM Queue Reform (i.e. “Fast Lane”) (describe):	
<i>Please attach a copy of all interconnection studies and/or the expected completion date(s).</i>	



### Site Information

Site Legal Description:		
Address:		
City:	State:	Zip Code:
County:	Latitude:	Longitude:
Site Control (lease, easement, own, site purchase pending, etc.):		
Site Acres Required:	Site Acres Secured:	
Is there potential for expansion (Y / N):	If yes, acres available:	
<i>Refer to Appendix B (Attachments Required) for Site Layout and Site Control Documents requested.</i>		

### Permits

Has Bidder contacted all required permitting agencies and identified all permits for project?
Local (City/County) (Y / N):
State (Y / N):
Federal (Y / N):
Wildlife Resources (Federal, State, etc.) (Y / N):
Other (Y / N):
<i>Refer to Appendix B (Attachments Required) for the Permit Matrix requested.</i>

### Preliminary Site Questions

Are there any Federal, State, or Tribal lands in the vicinity?	
What is the current status of Bidder's FAA permitting process? Has the project been issued Determination of NO Hazard? (For the entire project? For a portion of the project? If so, when is the expiration date?)	
Has habitat for any rare, threatened, or endangered species been identified within the vicinity (within 1 mile) of the project? If so, for what species?	
If habitat has been identified in the project vicinity, what is the current status of consultations with the U.S. Fish and Wildlife Service or applicable state agency?	
<i>Additional Site Information provided in Appendix I – Environmental, Wildlife, Land Use and Site Information</i>	





## Appendix C

### *PPA Proposal Bid Pricing*

Coal / Gas Base Proposal					
Expected Commence Date	Delivery Period	PPA Term and Expected Annual Energy	Capacity Payment (\$/kW-month)	Variable O&M Charge	Start Charges
					\$

### *Alternate Bid Pricing (not required)*

Coal / Gas Base Proposal					
Expected Commence Date	Delivery Period	PPA Term and Expected Annual Energy	Capacity Payment (\$/kW-month)	Variable O&M Charge	Start Charges
					\$

\* Bidder may offer Alternate Term proposals provided the Term is between seven (7) and (10) years.



## Appendix D

### Bidder's Credit-Related Information

Full Legal Name of the Bidder:
Type of Organization (Corporation, Partnership, etc.):
Bidder's % Ownership in Proposed Project (as of proposal submittal date):
If Bidder's Ownership is <100%, identity of all persons and entities that have a direct or indirect ownership interest in the Project:
Full Legal Name(s) of Parent Corporation: 1. 2. 3.
Entity Providing Credit Support on Behalf of Bidder (if applicable): Name: Address: City: Zip Code:
Type of Relationship of Credit Support Provider:
Current Senior Unsecured Debt Rating: 1. S&P: 2. Moody's:
Bank References & Name of Institution:
Bank Contact: Name: Title: Address: City: Zip Code: Phone Number:
Legal Proceedings: As a separate attachment, please list all lawsuits, regulatory proceedings, or arbitration in which the Bidder or its affiliates or predecessors have been or are engaged that could affect the Bidder's performance of its bid. Identify the parties involved in such lawsuits, proceedings, or arbitration, and the final resolution or present status of such matters.
Financial Statements: Please provide copies of the Annual Reports for the three most recent fiscal years and quarterly reports for the most recent quarter ended, if available. If available electronically, please provide link.



### Bidder's Profile

Please list Bidder's Affiliate companies:

- 1.
- 2.
- 3.
- 4.

### References

1. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
2. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
3. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:
4. Company
  - a. Contact Name:
  - b. Contact Number:
  - c. Project:





## **Appendix E**

### **Exceptions to Form Term Sheet**

*See Section 6.2 for instructions to obtain the applicable Form Term Sheet.*

*Bidder shall include a mark up to the Form Term Sheet as part of its Proposal.*



## **Appendix F**

### **Thermal Resource Information**

*See Section 6.2 for instructions to obtain any of the documents identified below:*

1. Bidder must populate the data required in the Company's following document:
  - Thermal Data Review Form\_2023



## **Appendix G**

### **Kentucky Economic Stimulus Benefits / Community Support / Supplier/Contractor Diversity**

#### ***Local Goods & Services***

Describe how the Bidder will be using local goods or services sourced in whole or in part from one or more Kentucky businesses, as applicable, to the extent practical in the purchase of equipment and material, or services for the Project:

#### ***Use of Small and Diverse Suppliers***

Describe plan to use reasonable efforts to utilize and adopt a subcontracting plan to use small and diverse suppliers as subcontractors for work (<https://www.aep.com/b2b/suppliers>):

#### ***Community Support***

Please provide a description of any economic benefits to local governments and businesses as well as local property and sales tax benefits. Include any executed agreements with the municipality, if available:



## **Appendix H**

### **Financing Plan**

*Bidder to include a description of its financing plan.*



## **Appendix I**

### **Environmental / Wildlife / Site Information**

1. Bidder must populate the data required in the Company's "Environmental Wildlife Site Review Form" document (*See Section 6.2 for instructions to obtain*).
2. Bidder must include the following attachments
  - a. Site Layout: Attach a diagram identifying anticipated placement of major equipment and other project facilities, including transmission layouts and Point of Delivery.
  - b. Site Control: Verify site control and reference documentation
  - c. Permit Matrix: List and describe all city, county, state and federal permits required for this project. Include: status, duration, planned steps, any known mitigation requirements, critical milestones, and timelines.
  - d. Environmental Report Summary: The initial Proposals shall include a summary of all environmental studies, reports and agency meetings associated with the Project. (See below for potential reports to summarize, include data summaries, results and findings)
3. Please attach any applicable reports providing environmental information specific to the project, including but not limited to, the following reports as available:
  - a. Critical Issues Analysis
  - b. Site Characterization Assessment and Reports
  - c. Environmental Work / Survey Plan
  - d. Federal / State Rare, Threatened, or Endangered Species Assessments and Surveys
  - e. Bat Acoustic Survey Report
  - f. Avian Use Survey Report
  - g. Raptor Nest Survey Report
  - h. Prey-base Survey Report
  - i. Wetland and Waters Delineation / Assessment Report
  - j. Phase I Environmental Site Assessment Report
  - k. Historical and Cultural Resource Survey / Assessment Report
  - l. All Other Environmental Resource Surveys, Assessments, and Study Reports
  - m. Record and Notes of all Federal and/or State Resource Agency Correspondence and Meetings
  - n. Environmental Justice Analyses
  - o. Aviation / FAA and Glare Studies
  - p. Radar Study
  - q. Noise and Shadow Flicker Study
  - r. Associated Project Infrastructure and Environmental Resource Shapefiles (.kmz format)  
Bird and Bat Conservation Strategy and Eagle Conservation Plan (if available)



## **Appendix J**

### **Operational Project Information**

*Refer to Section 7.11 for Requested Operational Project Information*

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_2** Provide the schedule for selecting and negotiating PPAs, and the target effective date for the selected PPAs.

**RESPONSE**

The current RFP schedule has proposals due November 8, 2023 and final bid selection and start of negotiations on January 31, 2024.

The target effective date for wind, solar, and storage PPAs is January 1, 2027, the first available date such resources are expected to come online, or January 1, 2028. The target effective date for thermal PPAs, which may include existing resources, is as early as May 1, 2025, and no later than June 1, 2028.

Witness: Alex E. Vaughan

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_3** State whether Kentucky Power will file for Commission approval of the PPAs and, if so, the expected filing date.

**RESPONSE**

Kentucky Power will file one or more applications for approval of the PPAs with the Commission. The expected timeframe for filing such application is July 2024, but is subject to change based on the RFP process.

Witness: Alex E. Vaughan



Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_4** Explain how Kentucky Power intends to meet its capacity needs prior to executing and, if approved by the Commission, implementing the PPAs.

**RESPONSE**

Consistent with the preferred plan in the Company's 2019 IRP (Case No. 2019-00443), the Company has secured short term capacity purchases to satisfy its capacity requirements through the 2025/2026 delivery year. The Company will secure more as needed until new longer term assets from the Company's pending RFP are contracted for, approved by the Commission and placed into service. The Company will continue to meet its energy requirements from its current owned and contracted-for supply resources including through its contracted-for right to energy as a member of PJM.

Witness: Alex E. Vaughan

Kentucky Power Company  
KPSC Case No. 2021-00370  
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**DATA REQUEST**

**KPSC 1\_5** Provide an updated status regarding the December 31, 2023 termination of Kentucky Power's interest in Mitchell Generating Station.

**RESPONSE**

Pursuant to the Commission's July 21, 2021 Order in Case No. 2021-00004, as reiterated in the Commission's May 3, 2022 Order in Case No. 2021-00421, Kentucky Power's interest in the Mitchell Generating Station must terminate after December 31, 2028. Kentucky Power continues to evaluate its interest in Mitchell Generating Station to determine an appropriate way to terminate its interest consistent with the Commission's decisions in the above referenced cases.

Witness: Brian K. West

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**DATA REQUEST**

**KPSC 1\_6** Provide a list of planned distribution projects for Kentucky Power's service territory in the next five years, the reason for each project, the issues the project will address, and the schedule for obtaining Commission approval and constructing each project.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_6\_Attachment1 for the list of planned Kentucky Power distribution projects in the next five years that will be funded through base rates. Included in the attachment are the reasons for each project (Project Reason) and the issue each project will address (Issue Project Will Address).

The Project Reasons identified in KPCO\_R\_KPSC\_1\_6\_Attachment1 are described as follows:

Mitigation & Reliability – Generally, these are smaller projects associated with rehabilitation and improvement of the distribution system. Examples of these projects include Line Reclosers, wire replacement overhead, wire replacement underground, sectionalizing programs, animal mitigation, system hardening, and smaller feeder tie.

Distribution Asset Planning – Generally, these are larger projects necessary to support load growth on the distribution system. Examples of these projects include new distribution station equipment and/or rebuilds as well as new more extensive distribution tie-lines and/or reconductoring existing lines.

Modernization – These are projects that allow for distribution equipment to be viewed and/or operated remotely by the Kentucky Power distribution dispatch center through SCADA. Examples of these projects include the enablement of telemetry monitoring for sectionalizing, opening/closing devices remotely manually via SCADA, remote reclosing, direct field crews to smaller faulted areas in a timelier manner, system load monitoring, system voltage monitoring, system operating condition alarms.

The Issues Project Will Address identified in KPCO\_R\_KPSC\_1\_6\_Attachment1 are described as follows:

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Asset Improvement – These projects, examples of which include replacement of outdated, failing equipment, and other necessary infrastructure upgrades, are projects needed to maintain safe and reliable electric service for Kentucky Power customers.

Planning Capacity – These are projects developed as part of Kentucky Power's long-range planning for meeting electrical load on Kentucky Power's distribution system. The need for capacity expansion can be due to either new customers or new load by existing customers in an area.

Service Reliability - These are investments that target known reliability issues affecting groups of customers or whole circuits experiencing reliability issues. This work includes activities such as replacing poles, installing lightning mitigation, replacement of crossarms, small conductors, addition of sectionalizing devices, as well as necessary upgrades to allow for additional switching on the distribution system to improve the resiliency of the distribution grid in these targeted areas.

Please also see KPCO\_R\_KPSC\_1\_6\_Attachment2, which provides a list of planned distribution reliability projects that the Company intends to execute through its 5-year Distribution Reliability Rider Work Plan, if approved in Case No. 2023-00159.

A Project Reasons identified in KPCO\_R\_KPSC\_1\_6\_Attachment2 are described as follows:

TOR-Enhanced ROW Widening – This project includes the targeted widening of the right of way (generally 10' to 30' on the uphill side of facilities). Circuits are targeted based on historical TOR SAIDI and forester field inspections.

Additional Tie Lines – These are projects that reduce the number of radial circuits by constructing primary lines to tie two circuits together, permitting electrical load to be transferred between the two circuits.

DACR (Distribution Automation-Circuit Reconfiguration)/Recloser Modernization – DACR projects include the installation of automation equipment on distribution circuits allowing isolation of a fault; and reconfigures a circuit to close other devices to re-energize the non-impacted areas of original circuit impacted by initial fault. Recloser Modernization projects include upgrading existing reclosing devices to electronically controlled devices. These devices will allow for more precise coordination with other devices, provide event recordings for outage and power quality investigations, and enable future DACR implementation. These devices will also allow for single phase

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operation in 3-phase circuits to keep customers from other phases energized when there are single phase outages on 3-phase devices.

Additional New Distribution Substation Sources – These projects include the construction of new distribution substations with associated transmission lines in and out of substations and the construction of distribution lines to tie into existing distribution circuits. These projects will result in new substations in remote areas, helping to reduce the number of radial distribution circuits. Each new substation will require a minimum of two years to place in service due to long lead times on station equipment.

Asset Renewal/Storm Hardening or Resiliency – These projects will replace aging infrastructure with equipment designed for NESC heavy loading criteria to better protect against extreme weather, including the replacement of poles and conductors to withstand up to one half inch of ice.

The Issues Project Will Address identified in KPCO\_R\_KPSC\_1\_6\_Attachment2 are described as follows:

Improve Reliability - These are projects that will reduce number of customers minutes of interruption (CMI)

With regards to the schedule for obtaining Commission approval for the identified based on the Company's review of the nature of the proposed projects currently included in the planned distribution projects list, the Company does not anticipate that the projects currently included on the project list would require a CPCN. However, once the projects are fully scoped, the Company will confirm whether a CPCN would be required for each new project on the project list. If the Company determines that a CPCN would be required for a project, then the Company will file an application for a CPCN.

Witness: Everett G. Phillips

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
Grahn\Olive Hill Tie New Project (Corey Rd) Sect 1, 2	Mitigation & Reliability	Service Reliability	✓				
Busseyville Wallbridge - Rt 1690 Convert to 19.9 (Cherryville Area)	Mitigation & Reliability	Asset Improvement	✓				
Grahn\Olive Hill Tie New Project (Corey Rd) Sect 7, 8	Mitigation & Reliability	Service Reliability	✓				
Grahn\Olive Hill Tie New Project (Corey Rd) Sect 3 - 6	Mitigation & Reliability	Service Reliability	✓				
Howard Collins - 29th Street reconductor	Mitigation & Reliability	Asset Improvement	✓				
Rt 503 to Indian Run - Rt 207 - Part 3	Mitigation & Reliability	Service Reliability	✓				
Tygart Station - Reconductor South Shore Siloam Dist Cir. SEC E	Distribution Asset Planning	Planning Capacity	✓				
Tygart Station - Reconductor South Shore Siloam Dist. Cir. SEC F	Distribution Asset Planning	Planning Capacity	✓				
Tygart Station - Reconductor South Shore Siloam Dist. Cir. SEC G	Distribution Asset Planning	Planning Capacity	✓				
Wurtland -Greenup/Wurtland Rt 503 - Horn Hollow Tie (Rt 503 to Rt 1)	Mitigation & Reliability	Service Reliability	✓				
DP16K03B0 Tygart Sta - Dist Station	Distribution Asset Planning	Planning Capacity	✓				
Bonnyman - Hazard / Hazard Black Gold - Morton Blvd Reconductor D/A Tie 8 Kft. to 556	Mitigation & Reliability	Asset Improvement	✓				
Hazard/Hazard Circuit - Oakhurst Ave. Sky Line Drive Reconductor #6A to #2AA 1000ft	Mitigation & Reliability	Asset Improvement	✓				
Hazard\Hazard - Spacer Cable / Windstream Poles	Mitigation & Reliability	Service Reliability	✓				
Hyden DA - Upgrade Equip - YFA Conversion	Modernization	Service Reliability	✓				
Leslie/Hyden Circuit - Wilder Br. Reconductor #2 ACSR to #2AA 2.5m SEC 1	Mitigation & Reliability	Asset Improvement	✓				
Pippa Passes Sec 2 replace #2out of station w\ 4/0. (2 Miles)	Mitigation & Reliability	Service Reliability	✓				
Softshell Vest - HIGHWAY 80 54 SPAN RECONDUCTOR Part 1	Mitigation & Reliability	Service Reliability	✓				

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
Tie Line Jenkins - Jenkins and Beefhide - Dunham	Mitigation & Reliability	Service Reliability	✓				
Betsy Layne\Mud Crk., Beaver Crk. \Ligon and McKinney\Maytown - Tie Line	Mitigation & Reliability	Service Reliability	✓				
Coleman\Calloway Circuit Tie Section G 5.9KFT	Mitigation & Reliability	Service Reliability	✓				
Dorton Circuit Beefhide - Build 2800 ft Tie NIWP 5.2 m total project Tie to Station	Mitigation & Reliability	Service Reliability	✓				
Index\ West Liberty Reconductor	Mitigation & Reliability	Service Reliability	✓				
Johns Cr.\Meta - Zebulon Highway Eliminating Mountain Crossing 4.9Kft.	Mitigation & Reliability	Asset Improvement	✓				
New circuit tie between the Coleman-Calloway 34kV Circuit and the Coleman-Peter Creek 34kV Circuit Section 1	Mitigation & Reliability	Service Reliability	✓				
New Lovely\Lovely - Mount Sterling Circuit Tie	Mitigation & Reliability	Service Reliability	✓				
Relocate Dewey\Inez Relocation (Telephone owned poles)	Mitigation & Reliability	Service Reliability	✓				
Reedy Station/Elwood Station DACR	Modernization	Service Reliability	✓				
West Paintsville\Falcon Oil Springs Tie	Mitigation & Reliability	Service Reliability	✓				
West Paintsville\Staffordsville -Falcon\Oil Springs Tie - Re-conductor to 4/0 2 miles	Mitigation & Reliability	Service Reliability	✓				
New circuit tie between the Lovely-Wolf Creek 34kV Circuit and the Dewey-Inez 34kV Circuit	Mitigation & Reliability	Service Reliability	✓	✓			
Betsy Layne\Mud Crk., Beaver Crk. \Ligon and McKinney\Maytown - Tie Line, 12 to 34 kV Conversion, Reconductor	Mitigation & Reliability	Service Reliability		✓			
Construct 12kV Circuit Tie Between Hayward-Lawton and Olive Hill-Glove 12kV Sec 1	Mitigation & Reliability	Service Reliability		✓			
Construct 12kV Circuit Tie Between Hayward-Lawton and Olive Hill-Glove 12kV Sec 2	Distribution Asset Planning	Service Reliability		✓			

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
Grayson Station - Lansdowne Feeder Improvement	Distribution Asset Planning	Service Reliability		✓			
Hayward Station - Halderman Feeder Improvement	Distribution Asset Planning	Service Reliability		✓			
Hoods Cr.- Hoods Cr Rural to Princess Rt.180	Mitigation & Reliability	Service Reliability		✓			
Olive Hill\Globe St Rt.174 Lawton Rd. Multi-Phase Windstream Poles In Some Locations	Mitigation & Reliability	Service Reliability		✓			
YFA Conversion Flatwoods	Modernization	Asset Improvement		✓			
Beckham Station/Talcum Station DACR	Modernization	Service Reliability		✓			
Chavies/Haddix/Engle/Bonnyman DACR	Modernization	Service Reliability		✓			
Leslie/Hyden Circuit - Wilder Br. Reconductor #2 ACSR to #2AA 2.5m SEC 2	Mitigation & Reliability	Asset Improvement		✓			
Line Fork - Tolson Tie Project (Tolson Tie) 3 Phase Tie	Mitigation & Reliability	Service Reliability		✓			
Rebuild Right Fork of Millstone Sec 1	Mitigation & Reliability	Service Reliability		✓			
Small Conductor on Laurel Fork of Lost Creek	Mitigation & Reliability	Asset Improvement		✓			
Softshell Vest - HIGHWAY 80 54 SPAN RECONDUCTOR Part 2	Mitigation & Reliability	Service Reliability		✓			
Talcum Station - Create ties local - Haddix -Troublesome Cr. 34.5 -2.5 mi Tie	Distribution Asset Planning	Service Reliability		✓			
New Cutshin 69kV Station 2-34kV circuit breakers (Design, Property)	Distribution Asset Planning	Service Reliability		✓			
Barrenshe\Pounding Mill Recondutor to Belfry\Toler Circuit Tie	Mitigation & Reliability	Asset Improvement		✓			
Belfry\Toler Circuit - Reconductor to Barrenshe\Pounding Mill Circuit Tie B to D	Mitigation & Reliability	Asset Improvement		✓			
Coleman\Calloway Circuit Tie Section F 3.8KFT 4/0 3-4/0, 1-1/0	Mitigation & Reliability	Service Reliability		✓			
New Camp\South Side and Sprigg - Sprigg - Tie line	Mitigation & Reliability	Service Reliability		✓			



PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
New circuit tie between the Coleman-Calloway 34kV Circuit and the Coleman-Peter Creek 34kV Circuit Sec. 2	Mitigation & Reliability	Service Reliability		✓			
Tom Watkins Reconductor (for mobile install)	Distribution Asset Planning	Service Reliability		✓			
West Paintsville MayoTrail\Euclid -Hendrix Replacement, 556 at 3,000 ft	Mitigation & Reliability	Asset Improvement		✓			
JTD2 Kenwood Station - Install Circuit Switcher	Distribution Asset Planning	Service Reliability		✓			
JTD3 Falcon Station - D Rehab	Distribution Asset Planning	Service Reliability		✓			
Lovely - Wolf Creek - Dewey Inez 4 mi Ckt. Tie 34.5kV	Mitigation & Reliability	Service Reliability		✓	✓		
Construct 12kV Circuit Tie Between Hayward-Lawton and Olive Hill-Glove 12kV Sec 3	Mitigation & Reliability	Service Reliability			✓		
Hoods Cr. Rural - Wurtland Rt 503 Circuit 6 mi Tie	Mitigation & Reliability	Service Reliability			✓		
Busseyville DA Expansion (7 Devices Replace 1 Recloser)	Modernization	Service Reliability			✓		
New Laurel Creek Station 2-34kV circuit breakers. (Design, Property)	Distribution Asset Planning	Service Reliability			✓		
Loop Feed for Little Smith Branch and Big Smith Branch	Mitigation & Reliability	Service Reliability			✓		
Rebuild Right Fork of Millstone Sec 2	Mitigation & Reliability	Service Reliability			✓		
Talcum Station/ Haddix Station Sec 1 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability			✓		
Talcum Station/ Haddix Station Sec 2 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability			✓		
Talcum Station/ Haddix Station Sec 3 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability			✓		
Talcum Station/ Haddix Station Sec 4 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability			✓		
New Cutshin 69kVStation 2-34kV circuit breakers Station Construction , Transmission Tie	Distribution Asset Planning	Service Reliability			✓		

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
Burdine\Levisa Ckt. - Reconductor #6 to #2Al. 13Kft Side Taps	Mitigation & Reliability	Asset Improvement			✓		
Coleman\Calloway Circuit Tie Section E 8.5Kft 4/0 3-4/0, 1-1/0	Mitigation & Reliability	Service Reliability			✓		
Coleman-Peter Cr.- Coleman Calloway 2 mi 34.5 Cir Tie	Mitigation & Reliability	Service Reliability			✓		
Dewey\Inez - Saltwell to Wolf Br.in Tomahawk-2mile Rebuild Phase 1	Mitigation & Reliability	Asset Improvement			✓		
Pikeville 34 kV South DA - D Line Work	Modernization	Service Reliability			✓		
Pikeville 34 kV South DA - Dorton	Modernization	Service Reliability			✓		
Pikeville 34 kV South DA - Kewanee	Modernization	Service Reliability			✓		
Pikeville 34 kV South DA - Myra station work	Modernization	Service Reliability			✓		
Pikeville 34 kV South DA - Poor Bottom	Modernization	Service Reliability			✓		
Salisbury-Martin- 12kV Tie to New Jacks Cr Sta. Cir.	Mitigation & Reliability	Service Reliability			✓		
Hitchins-Willard - Big Sandy Fallsburg 12 mi Cir. Tie	Mitigation & Reliability	Service Reliability				✓	
Tygart Lloyd DA - D Line work	Modernization	Service Reliability				✓	
Tygart Lloyd DA - Grays Branch	Modernization	Service Reliability				✓	
Tygart Lloyd DA - Siloam	Modernization	Service Reliability				✓	
New Laurel Creek Station 2-34kV circuit breakers. - Construction	Distribution Asset Planning	Service Reliability				✓	
Leslie-Wooten/ Slemple-Leatherwood-Wolf Br. Tie Line 1m	Mitigation & Reliability	Service Reliability				✓	
Rebuild Single Phase in Head of Left Fork Cram Creek	Mitigation & Reliability	Asset Improvement				✓	
Small Conductor on Groundhog Hollow	Mitigation & Reliability	Asset Improvement				✓	
Talcum Station/ Haddix Station Sec 5 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability				✓	

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
Talcum Station/ Haddix Station Sec 6 34kV Circuit Tie and Reconductor 1.5 mi	Distribution Asset Planning	Service Reliability				✓	
New Cutshin 69kVStation 2-34kV circuit breakers - 1 mi of Double Circuit Distribution	Distribution Asset Planning	Service Reliability				✓	
Coleman\Calloway Circuit Tie Section D 7.0Kft 4/0 3-4/0, 1-1/0	Mitigation & Reliability	Service Reliability				✓	
Dewey\Inez - Saltwell to Wolf Br.in Tomahawk-2mile Rebuild Phase 2	Mitigation & Reliability	Service Reliability				✓	
Dorton 34 kV tie to Elwood Circuit 18kft Rebuild (future Myra)	Distribution Asset Planning	Service Reliability				✓	
Coalton - Trace Cr. - Coalton US 60 4 mi Ckt Tie	Mitigation & Reliability	Service Reliability					✓
Coalton - US 60 West - Hitchins Grayson Ckt. 7 mi Tie 12 KV	Mitigation & Reliability	Service Reliability					✓
Coleman\Calloway Circuit Tie Section A Remove Mtn. Crossing	Mitigation & Reliability	Service Reliability					✓
Grayson Station - Construct New Feeder - New Circuit	Distribution Asset Planning	Service Reliability					✓
Relocate BusseyVille\Shannon Br. to Past Valero Station Sec 2	Mitigation & Reliability	Service Reliability					✓
Relocate BusseyVille\Shannon Br. to Past Valero Station Sec1	Mitigation & Reliability	Service Reliability					✓
Haddix - Canoe - Small Conductor on Stamper Fork	Mitigation & Reliability	Asset Improvement					✓
Hazard 12kV DACR D-Line Work	Modernization	Service Reliability					✓
New Daisy Station 69/34.5kV 30MVA 20 34.5 Breakers Station (Design, Property)	Distribution Asset Planning	Service Reliability					✓
New Daisy Station 69/34.5kV 30MVA 20 34.5 Breakers Station Distribution Rebuild Convert 12kV to 34.5	Distribution Asset Planning	Service Reliability					✓
New Premium Station with 2 - 34 kV Circuit Breakers (Sta. Design)	Distribution Asset Planning	Service Reliability					✓
Allen - Besty Ln Circuit	Modernization	Service Reliability					✓

PROJECT NAME	PROJECT REASON	ISSUE PROJECT WILL ADDRESS	Plan Year				
			2024	2025	2026	2027	2028
New Jacks Cr. Sta. - Stinnett Redbird Construct New . Distribution Ties & DACR	Distribution Asset Planning	Service Reliability					✓
Install 138/12kV Distribution Bank at Stone Transmission Station with 3-12kV CBs and Circuit Ties (Design, Property)	Distribution Asset Planning	Service Reliability					✓
Install 138/34kV Distribution Bank at the Dorton Transmission Station Rebuild Sec (2) 9,000 ft Distribution	Distribution Asset Planning	Service Reliability					✓
Install 138/34kV Distribution Bank at the Dorton Transmission Station Rebuilds Sec (1) 9,000 ft Distribution	Distribution Asset Planning	Service Reliability					✓
Johns Creek-Raccoon to Coleman-Calloway 34kV Circuit Tie Section A	Mitigation & Reliability	Service Reliability					✓

			DRR Plan Year				
DRR PROJECT NAME	DRR PROJECT REASON	ISSUE DRR PROJECT WILL ADDRESS	2024	2025	2026	2027	2028
TOR Enhanced ROW Widening	TOR Enhanced ROW Widening	Improve Reliability	✓	✓	✓	✓	✓
Hayward Haldeman to Olive Hill Globe along Trumbo Rd and Hwy60	Additional Tie Lines	Improve Reliability	✓				
Talcum - Dline 12m 34.5kV Conversion for ties to Beckham Hindman and Haddix Troublesome Cr.	Additional Tie Lines	Improve Reliability		✓	✓		
Various Smaller Rural Ties - Hazard	Additional Tie Lines	Improve Reliability					✓
Johns Creek - Coleman Calloway Tie	Additional Tie Lines	Improve Reliability				✓	
Various Smaller Rural Ties - Pikeville	Additional Tie Lines	Improve Reliability					✓
Hayward - Lawton	DACR/Recloser Moderization	Improve Reliability		✓			
OliveHill - Globe	DACR/Recloser Moderization	Improve Reliability		✓			
Princess - US Cannonsburg	DACR/Recloser Moderization	Improve Reliability			✓		
BECKHAM - CARR CREEK	DACR/Recloser Moderization	Improve Reliability			✓		

			DRR Plan Year				
DRR PROJECT NAME	DRR PROJECT REASON	ISSUE DRR PROJECT WILL ADDRESS	2024	2025	2026	2027	2028
VICCO - REDFOX	DACR/Recloser Moderization	Improve Reliability			✓		
SOFT SHELL - VEST	DACR/Recloser Moderization	Improve Reliability			✓		
SOFT SHELL - LEBURN	DACR/Recloser Moderization	Improve Reliability			✓		
COLLIER - UPPER ROCKHOUSE	DACR/Recloser Moderization	Improve Reliability			✓		
COLLIER - LOWER ROCKHOUSE	DACR/Recloser Moderization	Improve Reliability			✓		
REEDY - DEANE	DACR/Recloser Moderization	Improve Reliability			✓		
BECKHAM - HINDMAN	DACR/Recloser Moderization	Improve Reliability					✓
TALCUM - CIRCUIT 1	DACR/Recloser Moderization	Improve Reliability					✓
BLUEGRASS - WALKERTOWN	DACR/Recloser Moderization	Improve Reliability					✓
BLUEGRASS - HAZARD	DACR/Recloser Moderization	Improve Reliability					✓
COMBS - AIRPORT GARDENS	DACR/Recloser Moderization	Improve Reliability					✓
HAZARD - HAZARD	DACR/Recloser Moderization	Improve Reliability					✓

			DRR Plan Year				
DRR PROJECT NAME	DRR PROJECT REASON	ISSUE DRR PROJECT WILL ADDRESS	2024	2025	2026	2027	2028
BULAN - ARY-HEINER	DACR/Recloser Moderization	Improve Reliability					✓
BULAN - AJAX-DWARF	DACR/Recloser Moderization	Improve Reliability					✓
BULAN - LOTTS CR.	DACR/Recloser Moderization	Improve Reliability					✓
JACKSON - S.JACKSON	DACR/Recloser Moderization	Improve Reliability					✓
JACKSON - PANBOWL	DACR/Recloser Moderization	Improve Reliability					✓
ELWOOD -DORTON	DACR/Recloser Moderization	Improve Reliability			✓		
ELWOOD - VIRGIE - IN	DACR/Recloser Moderization	Improve Reliability			✓		
FORDSBRANCH - ROBINSON CR.	DACR/Recloser Moderization	Improve Reliability			✓		
TOMWATKIN - DISTRIBUTION	DACR/Recloser Moderization	Improve Reliability					✓
SIDNEY - COBURN MTN.	DACR/Recloser Moderization	Improve Reliability					✓
Recloser Modernization	DACR/Recloser Moderization	Improve Reliability	✓	✓	✓		✓

			DRR Plan Year				
DRR PROJECT NAME	DRR PROJECT REASON	ISSUE DRR PROJECT WILL ADDRESS	2024	2025	2026	2027	2028
Grays Br.-Increase Bank Size to 20MVA (2) Breakers	Additional New Distribution Substation Sources	Improve Reliability			✓	✓	✓
Ramey Sta. - Relieve loading Howard Collins\ Mobile Issue	Additional New Distribution Substation Sources	Improve Reliability			✓	✓	
Ramey Sta. - D line Exits	Additional New Distribution Substation Sources	Improve Reliability				✓	
Talcum - Land	Additional New Distribution Substation Sources	Improve Reliability	✓				
Talcum - New Station	Additional New Distribution Substation Sources	Improve Reliability	✓	✓			
Dorton 34kV Distribution Bank	Additional New Distribution Substation Sources	Improve Reliability			✓	✓	
Stone 12kV Distribution Bank with 3-12kV CBs and Circuit Ties	Additional New Distribution Substation Sources	Improve Reliability				✓	✓
Tom Watkins - purchase addl property	Additional New Distribution Substation Sources	Improve Reliability			✓		



			DRR Plan Year				
DRR PROJECT NAME	DRR PROJECT REASON	ISSUE DRR PROJECT WILL ADDRESS	2024	2025	2026	2027	2028
Asset Renewal/ Storm Hardening or Resiliency	Asset Renewal/ Storm Hardening or Resiliency	Improve Reliability	✓	✓	✓	✓	✓

Kentucky Power Company  
KPSC Case No. 2021-00370  
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**DATA REQUEST**

**KPSC 1\_7** Provide a list of planned transmission projects for Kentucky Power's service territory in the next five years, the reason for each project, the issues the project will address, and the schedule for obtaining Commission approval and constructing each project.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_7\_Attachment1.

Witness: Brian K. West

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_8** Provide the outage statistics for Kentucky Power's generating units for 2016 to the most recent available data for 2023.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_8\_Attachment1 for the requested information.

Witness: Timothy C. Kerns

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_9** Provide the annual amount Kentucky Power has spent on replacement power for 2016 to the most recent available data for 2023. Separately identify economy energy purchases and purchases made during times of insufficient generation.

**RESPONSE**

The concept of replacement power is not applicable for Kentucky Power because it has been a member of a power pool since at least 1951 for purposes of meeting the load requirements of its customers and does not dispatch its generation resources to match its specific native load requirements. As a member of a power pool, now the PJM RTO, the Company has a contractual right to access energy to meet its energy demands. From an energy cost perspective, the Company's customers receive the lower of the cost of production or market resulting from an economic dispatch process. When economic (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 customers simply pay the lower cost of market energy. Therefore, the requested information does not exist.

Regarding economy energy purchases, please refer to KPCO\_R\_KPSC\_1\_9 Attachment1 for the monthly MWh and cost of PJM energy purchases used to serve native load requirements from 2016 through August of 2023. Also included for the same timeframe are the MWh and variable cost of the Company's owned and contracted generation (inclusive of the Company's Rockport UPA). As shown, the average cost of purchased power used to serve the Company's retail load during the requested timeframe was \$36.78/MWh.

There were no hours during the requested timeframe when the Company had insufficient generation available to it to serve its customers and, therefore, the requested information does not exist.

Witness: Alex E. Vaughan

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_10** Provide the annual amount Kentucky Power has spent on capacity purchases for 2016 to the most recent available data for 2023. Separately identify capacity purchases that also provided Kentucky Power with energy rights.

**RESPONSE**

The Company has made the following purchases of capacity during the timeframe requested:

June 1, 2022 – May 31, 2023: 152.4 MWs at a cost of \$1,333,500

June 1, 2023 – May 31, 2024: 65.4 MWs at a cost of \$898,333

The Rockport UPA is the only capacity purchase which includes energy entitlements during the requested period of time.

<b>Rockport UPA Purchases from AEG</b>		
	Purchase MWh	Purchase \$
2022	735,451	\$ 92,938,113
2021	720,400	\$ 93,364,290
2020	605,817	\$ 74,054,443
2019	1,222,042	\$ 92,084,293
2018	1,784,115	\$ 101,960,638
2017	1,638,514	\$ 95,956,925
2016	1,733,681	\$ 97,940,613
<b>Source: KPCO FERC Form 1</b>		

The Company has no other capacity purchases with energy entitlements during the timeframe requested.

Witness: Alex E. Vaughan

Kentucky Power Company  
KPSC Case No. 2021-00370  
Commission Staff's First Set of Show Cause Issue Data Requests  
Dated October 12, 2023

**DATA REQUEST**

**KPSC 1\_11** Provide Kentucky Power's annual reliability metrics for 2016 to the most recent available data for 2023 and separately show outages caused by vegetation. Include in the response, the System Average Interruption Duration, System Average Interruption Frequency, Customer Average Interruption Frequency, Customer Average Duration, and Customer Minutes of Interruption.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_11\_Attachment1 for the requested information.

Witness: Everett G. Phillips

**Kentucky Power's Annual Reliability Metrics: 2016-2023**

Year	Customers	Outages	CI	CMI	SAIDI	SAIFI	CAIDI
2016	167,061	7,784	362,014	74,469,948	445.77	2.17	205.71
2017	166,377	6,973	360,867	67,597,596	406.29	2.17	187.32
2018	165,072	8,842	386,521	79,920,364	484.15	2.34	206.77
2019	164,022	10,153	407,664	79,558,465	485.05	2.49	195.16
2020	165,077	9,165	331,826	65,600,673	397.39	2.01	197.70
2021	164,021	8,435	303,745	65,956,314	402.12	1.85	217.14
2022	162,018	9,704	370,882	79,488,727	490.62	2.29	214.32
2023*	162,018	9,099	325,781	60,030,203	370.52	2.01	184.27

**Kentucky Power's Annual Reliability Metrics – Vegetation Related Outages: 2016-2023**

Year	Customers	Outages	CI	CMI	SAIDI	SAIFI	CAIDI
2016	167,061	2,673	131,990	36,993,129	221.43	0.79	280.27
2017	166,377	2,200	126,080	33,503,858	201.37	0.76	265.73
2018	165,072	2,457	130,345	38,690,688	234.39	0.79	296.83
2019	164,022	2,614	168,459	43,084,032	262.67	1.03	255.75
2020	165,077	2,643	120,138	33,267,172	201.53	0.73	276.91
2021	164,021	2,403	105,727	32,295,605	196.90	0.64	305.46
2022	162,018	2,938	143,032	39,218,437	242.06	0.88	274.19
2023*	162,018	2,436	117,451	32,750,648	202.14	0.72	278.85

\*Note: Data for Month End 9/30/23 is rolling 12 months ended 9/30/23.  
 Calculations for 9/30/23 data are based on year end 12/31/22 customer count.  
 Changes to customer count at year end 12/31/23 could affect final calculations.








**VERIFICATION**

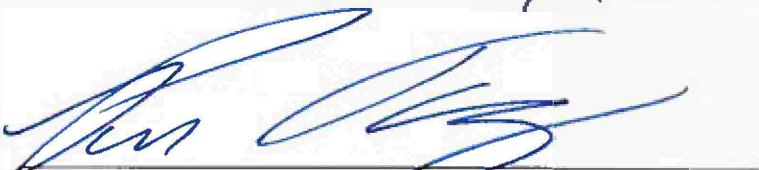
The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Managing Director for Renewables and Fuel Strategy for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is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

  
\_\_\_\_\_  
Alex E. Vaughan

State of Ohio )  
 )  
County of Franklin )

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 11/8/2023.

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

My Commission Expires Never

Notary ID Number No ID



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

