COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF: ELECTRONIC JOINT APPLICATION OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND SITE COMPATIBILITY CERTIFICATES AND APPROVAL OF A DEMAND SIDE MANAGEMENT PLAN.	: : : : : :	CASE NO 2022-00402

REPLY BRIEF OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

Kentucky Industrial Utility Customers, Inc. ("KIUC") submits this Reply Brief in response to the Initial Briefs of the Sierra Club and Joint Intervenors.

1. Ghent Unit 2 Should Not Be Retired; It Should Be Used By KU Or Bid Into Kentucky Power's Thermal Resource RFP For 875 Mw Of Summer Capacity And 1,300 Mw Of Winter Capacity

Joint Intervenors argue that the "*retirement of Ghent 2 is in the best interest of customers…*"[1] Sierra Club similarly argues that the failure to retire Ghent 2 will harm customers.[2]

Joint Intervenors and Sierra Club fail to recognize that the 495 Mw Ghent 2 coal plant is a valuable asset for the customers of KU, and it could be a valuable resource for the Commonwealth. Ghent 2:

- Is a large highly efficient coal unit located on the Ohio River with low fuel costs from Western Kentucky;[3]
- Has the lowest forced outage rate of all of the Companies' coal units;[4]
- Had a 2017-2022 capacity factor of 64%;[5]

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[1] Joint Intervenors Initial Briefs at 69-73.
[2] Sierra Club Initial Brief at 34-35.
[3] Kollen Direct Testimony at 10.
[4] Kollen Direct Testimony at 10.
[5] Sinclair Rebuttal Testimony at 67.

- Provides about 9% of the Companies' (KU and LG&E) annual retail energy sales;[6]
- Has low fixed O&M costs and benefits from economies of scale as part of the four-unit 2,000 Mw Ghent Station (the largest power plant in Kentucky);[7]
- Provides added capacity for reliability, load growth, economic development and off-system sales;[8] and
- Keeping Ghent 2 open does not adversely affect the permitting process for either proposed NGCC.[9]

Keeping Ghent 2 open is not costly. The cost of keeping Ghent 2 in operation during the seven non-ozone months for the period 2029-2035 is only $6.5 million per year.[10] If the Good Neighbor Plan becomes effective, or if the EPA pursues the same NOx reductions through a different regulation, then a $126 million SCR would be needed for year-round operation.[11] The cost of an SCR is significantly less than the increased cost of just a single NGCC as demonstrated through the recently received competitive bids.[12] Despite the increased cost, KIUC continues to support both NGCCs.[13]

On September 22, 2023, Kentucky Power Company ("Kentucky Power") issued an RFP for Purchase Power Agreements ("PPAs") for new and existing thermal (coal and gas) resources (Attachment 1). Kentucky Power is seeking 875 Mw of accredited summer capacity and 1,300 Mw of accredited winter capacity.

For existing coal or gas resources, the PPA delivery period is as early as May 1, 2026 and no later than June 1, 2028. The coal or gas resource must be interconnected to PJM. The

[6] Kollen Direct testimony Exhibit 3.

[7] Company Response to Sierra Club 1-14.

[8] Kollen Direct testimony at 13.

[9] *See* Imber Direct and Rebuttal Testimony.

[10] Sinclair Rebuttal Exhibit DSS-2, page 1.

[11] Imber Rebuttal Testimony at 9-11.

[12] Post-Hearing Response to Joint Intervenors No. 4.1.

[13] KIUC continues to support both NGCCs despite the speculative allegations of Joint Intervenors at pages 76-79 of their Initial Brief that the RFP process was somehow rigged. KIUC witness Mr. Kollen has years of experience in reviewing utility RFPs for new generation and he found no indication that process was established to achieve a predetermined outcome.

requested PPA term is seven to ten years. Kentucky Power affiliates, such as Wheeling Power, the other 50% owner of Mitchell Units 1 and 2, cannot submit a competitive bid.

The due date for proposals is November 8, 2023. This is only days after a decision is expected in this case.

Ghent 2 may be one of only a small number of existing coal or gas plants that can meet these requirements. But a retirement decision would eliminate this option to the possible detriment of the ratepayers of both KU and Kentucky Power. PJM would certainly welcome additional thermal generation. In fact, PJM desperately needs it.

The Commission is currently investigating whether Kentucky Power has violated its obligation to provide adequate service due to its failure to maintain sufficient generation.[14] The Commission explained that it "*is concerned about the future of Kentucky Power as a utility and about the customers it serves in Eastern Kentucky.*"[15]

Under these circumstances, it is appropriate for the Commission to take an active oversight role: 1) to encourage KU to pursue the opportunity to sell the energy and capacity from Ghent 2 to Kentucky Power; and 2) to ensure that Kentucky Power objectively evaluates the proposal.

Commission oversight is appropriate for many reasons. If a Ghent 2 PPA can reasonably meet part of the needs of Kentucky Power, then this will contribute to low-cost and stable energy pricing in Eastern Kentucky, and will enhance service reliability. If energy and capacity from Ghent 2 can cost-effectively be sold to Kentucky Power, then KU's ratepayers will benefit through a reduction to the plant's remaining net book costs. The Kentucky economy will also benefit

[14] Electronic Investigation Of The Service, Rates And Facilities Of Kentucky Power Company, Case No. 2021-00370.
[15] Case No. 2021-00370, September 15, 2021 Order at 6.

through greater local coal production with associated mining and transportation jobs and increased state and local tax revenue.

The Commission should recognize that AEP might have an economic motivation to have Wheeling Power sell energy and capacity from the Mitchell Plant to Kentucky Power after 2028 on a negotiated basis post-RFP. Power from Mitchell at a negotiated rate after 2028 might be part of a reasonable short-term plan. That option cannot be excluded. But undue reliance should not be placed on AEP as it must balance the needs of both Kentucky and West Virginia.[16]

Ghent 2 is a valuable asset. It can be used by KU for added reliability, load growth, economic development and off-system sales. It can potentially be used by Kentucky Power as a base load unit for native load. Commission oversight is appropriate to reasonably determine how that asset should be used. This is fully consistent with the Legislative intent of SB 4.

2. Sierra Club's Conclusion That Joining PJM Would Save The Companies $125 Million – $140 Million Annually Cannot Be Relied On.

Sierra Club asserts that based on the analysis of its witness Mr. Levitt the Companies could save approximately $125 million – $140 million annually by joining PJM.[17] Sierra Club's analysis has at least three significant errors.

First, Sierra Club's analysis does not include any of the costs of PJM membership. The annual PJM administrative fee is projected to be $19.2 million to $26.4 million.[18] PJM's annual Regional Transmission Expansion Planning ("RTEP") costs are projected to be $17.8 million to $20.5 million.[19] Other miscellaneous PJM costs are projected to total $10.5 million to $16.6

[16] After 2028, Kentucky Power will still be a 50% owner of Mitchell. During the terminated Liberty acquisition, Kentucky and West Virginia tried and failed to agree on transfer pricing. How much Wheeling Power will pay Kentucky Power for its 50% ownership interest remains undetermined.

[17] Sierra Club Initial Brief at 92.

[18] 2022 RTO Membership Analysis (Attachment 1 to Response to Sierra Club 2-26).

[19] *Id.*

million annually.[20] Including only projected PJM benefits while ignoring projected PJM costs is obviously incomplete.

Second, Sierra Club's analysis assumes that in 2028 the Companies will have 6,790 Mw of generation (without adding any new NGCC capacity) and that virtually all of that same capacity (6,647 Mw) will still be in operation 32 years later in 2050.[21] Sierra Club's own Hearing Exhibit 2 shows that the Companies plan to retire all of the Ghent Units by 2037, all of the Mill Creek Units by 2039, and Trimble County Unit 1 in 2045. The only existing units that are planned to still be in operation in 2050 are Trimble County Unit 2 and Cane Run 7.[22] Sierra Club provides no explanation as to how PJM membership could so dramatically extend the operational lives of the Companies' generation.

Third, Sierra Club makes an unrealistic assumption about the cost of market-based generation capacity in PJM. It assumes the Companies could purchase 407 Mw of generation capacity in 2050 for $11 million ($72/Mw-day).[23] At this price, the Companies could supply their entire 2050 projected capacity requirement (including reserves) of 8,026 Mw for only $210.9 million.[24] This is just a fraction of the annual generation supply cost of the system today. It is highly unlikely that market-based generation capacity in PJM in 2050 will be a fraction of today's cost.

Before it reviewed even one piece of evidence Sierra Club already knew its position: retire as much coal generation as possible and don't build any new natural gas replacement capacity. That is Sierra Club's mission statement.[25]

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[20] *Id.*

[21] KIUC Hearing Exhibit 3.

[22] Sierra Club Hearing Exhibit 2.

[23] KIUC Hearing Exhibit 3.

[24] 8,026 Mw x $72 x 365.

[25] Sierra Club's website provides: "*We want to close all US coal plants. We're more than halfway there.*" "*We want to stop all new gas infrastructure. That means no more dangerous pipelines or carbon-polluting plants.*" https://coal.sierraclub.org/campaign

CONCLUSION

EPA notwithstanding, PJM, MISO, NERC and FERC have all recently come to realize that the accelerated retirement of coal generation threatens reliability, public health and public safety.[26] Through the prudent use of its existing generation assets, Kentucky is in the unique position of being able to help both the local economy and the regional power grid.

Respectfully submitted,

/s/ Michael L Kurtz

Michael L. Kurtz, Esq.
Jody Kyler Cohn, Esq.
BOEHM, KURTZ & LOWRY
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
Ph: 513.421.2255 Fax: 513.421.2764
mkurtz@BKLlawfirm.com
jkylercohn@BKLlawfirm.com

COUNSEL FOR KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

October 4, 2023

[26] Kollen Direct Testimony at 7-9; Sinclair Rebuttal Testimony at 3-4, 29-31.

ATTACHMENT 1

KENTUCKY POWER
An AEP Company

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

KENTUCKY POWER
An AEP Company

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KENTUCKY POWER

An AEP Company

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.
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 Thermal RFP only.

The PPA RFP and Standalone Storage RFPs may be found at 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.

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.

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

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.

	PPA Delivery Period Commencement
Existing Projects	as early as 5/1/2025 and no later than 6/1/2028
New Projects with COD in 2026	as early as 5/1/2026 and no later than 6/1/2028
New Projects with COD in 2027	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 x [(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 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. 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 – 8.1.11, 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

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

PJM Interconnection