

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**ELECTRONIC APPLICATION OF EAST)
KENTUCKY POWER COOPERATIVE, INC. FOR)
A CERTIFICATES OF PUBLIC CONVENIENCE)
AND NECESSITY AND SITE COMPATIBILITY)
CERTIFICATES FOR THE CONSTRUCTION OF)
A 96MW (NOMINAL) SOLAR FACILITY IN)
MARION COUNTY, KENTUCKY AND A 40MW)
(NOMINAL) SOLAR FACILITY IN FAYETTE)
COUNTY, KENTUCKY AND APPROVAL OF)
CERTAIN ASSUMPTIONS OF EVIDENCE OF)
INDEBTEDNESS RELATED TO THE SOLAR)
FACILITIES AND OTHER RELIEF)**

**CASE NO.
2024-00129**

**RESPONSES TO PSC’S SECOND INFORMATION REQUEST
TO EAST KENTUCKY POWER COOPERATIVE, INC.**

DATED JULY 3, 2024

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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KENTUCKY POWER COOPERATIVE, INC. FOR)	
A CERTIFICATES OF PUBLIC CONVENIENCE)	CASE NO.
AND NECESSITY AND SITE COMPATIBILITY)	2024-00129
CERTIFICATES FOR THE CONSTRUCTION OF)	
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COUNTY, KENTUCKY AND APPROVAL OF)	
CERTAIN ASSUMPTIONS OF EVIDENCE OF)	
INDEBTEDNESS RELATED TO THE SOLAR)	
FACILITIES AND OTHER RELIEF)	

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

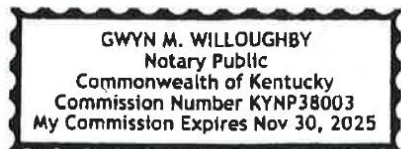
Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commissions Second Request for Information in the above-referenced case dated July 3, 2024, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Julia J. Tucker

Subscribed and sworn before me on this 18th day of July 2024.

Gwyn M. Willoughby

Notary Public



EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 1

RESPONSIBLE PARTY: Chris Adams

Request 1. Refer to EKPC's response to Commission Staff's First Request for Information (Staff's First Request), Items 1 and 4.

Request 1a. Provide an update to the table in Item 4 to include EKPC's seasonal capacity and reserve margins with and without the addition of the two solar projects in this case.

Response 1a. Table without the addition of the two solar projects.

YEAR	Projected Peaks		Planning Reserves		Capacity Required		Existing Capacity		Reserve Margin	
	Long Term LF 2022		WIN	SUM	WIN	SUM	WIN	SUM	WIN	SUM
	WIN	SUM								
2024	3,349	2,558	0	77	3,349	2,635	3,434	3,132	85	497
2025	3,370	2,590	0	78	3,370	2,668	3,434	3,132	64	464
2026	3,400	2,603	0	78	3,400	2,681	3,434	3,132	34	451
2027	3,419	2,619	0	79	3,419	2,698	3,434	3,132	15	435
2028	3,452	2,640	0	79	3,452	2,719	3,434	3,132	-18	413
2029	3,467	2,656	0	80	3,467	2,736	3,434	3,132	-33	396
2030	3,484	2,669	0	80	3,484	2,749	3,434	3,132	-50	383
2031	3,504	2,686	0	81	3,504	2,767	3,434	3,132	-70	365
2032	3,535	2,708	0	81	3,535	2,789	3,434	3,132	-101	343
2033	3,551	2,727	0	82	3,551	2,809	3,434	3,132	-117	323
2034	3,578	2,748	0	82	3,578	2,830	3,434	3,132	-144	302
2035	3,607	2,771	0	83	3,607	2,854	3,434	3,132	-173	278
2036	3,651	2,804	0	84	3,651	2,888	3,434	3,132	-217	245
2037	3,673	2,828	0	85	3,673	2,913	3,434	3,132	-239	219
2038	3,704	2,854	0	86	3,704	2,940	3,434	3,132	-270	192

Table with the addition of the two solar projects.

YEAR	Projected Peaks		Planning Reserves		Capacity Required		Existing Capacity		Reserve Margin	
	Long Term LF 2022		WIN	SUM	WIN	SUM	WIN	SUM	WIN	SUM
	WIN	SUM								
2024	3,349	2,558	0	77	3,349	2,635	3,434	3,132	85	497
2025	3,370	2,590	0	78	3,370	2,668	3,434	3,132	64	464
2026	3,400	2,603	0	78	3,400	2,681	3,434	3,132	34	451
2027	3,419	2,619	0	79	3,419	2,698	3,434	3,269	15	571
2028	3,452	2,640	0	79	3,452	2,719	3,434	3,269	-18	549
2029	3,467	2,656	0	80	3,467	2,736	3,434	3,269	-33	533
2030	3,484	2,669	0	80	3,484	2,749	3,434	3,269	-50	519
2031	3,504	2,686	0	81	3,504	2,767	3,434	3,269	-70	501
2032	3,535	2,708	0	81	3,535	2,789	3,434	3,269	-101	480
2033	3,551	2,727	0	82	3,551	2,809	3,434	3,269	-117	460
2034	3,578	2,748	0	82	3,578	2,830	3,434	3,269	-144	438
2035	3,607	2,771	0	83	3,607	2,854	3,434	3,269	-173	415
2036	3,651	2,804	0	84	3,651	2,888	3,434	3,269	-217	381
2037	3,673	2,828	0	85	3,673	2,913	3,434	3,269	-239	356
2038	3,704	2,854	0	86	3,704	2,940	3,434	3,269	-270	329

Request 1b. To the extent that EKPC's estimated seasonal capacity and reserve margins differ from what was presented in EKPC's 2022 IRP, explain why.

Response 1b. The projected peaks have been updated to reflect the 2022 Load Forecast. The 2022 IRP had the 2020 Load Forecast values.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 2

RESPONSIBLE PARTY: Chris Adams

Request 2. Refer to Case No. 2023-00153, EKPC's response to Staff's First Request,² Item 1(a). Update the table to reflect estimated capacity position upon construction of the proposed projects.

Response 2. See Response 1a.

**EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE**

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 3

RESPONSIBLE PARTY: Chris Adams

Request 3. Provide a calculation of estimated annual net avoided operations and maintenance cost of all generation based on the addition of the proposed projects.

Response 3. There will not be avoided operations and maintenance costs of any other generator in the portfolio due to the addition of the proposed projects. The existing generation facilities are dispatched against market prices, not load requirements. The proposed projects economically offset market exposure for load purchases from the PJM energy market. The project is expected to generate approximately 84,701 MWh per year at zero cost for energy since all of the costs are considered to be fixed. Energy prices in the time frame when this project is expected to become operational are projected to be roughly \$55/MWh. So more than \$4.5 million per year will be avoided in fuel / energy costs to EKPC owner members, with no air emissions impacts.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 4

RESPONSIBLE PARTY: Patrick Bischoff

Request 4. Refer to Application, Direct Testimony of Julia J. Tucker, pages 12-13.

Request 4a. Provide estimated timelines for construction and interconnection of the two planned sites.

Response 4a. The Northern Bobwhite Solar project is scheduled for construction to commence, pending approval of this CPCN, Q1 2026. The facility is planned for commercial operations Q2 2027. The Bluegrass Plains Solar project is scheduled for construction to commence, pending approval of this CPCN, Q4 2025. The facility is planned for commercial operations Q2 2027.

Request 4b. Provide an estimated timeline if EKPC were to select its own site, build, and apply for interconnection, including time required for site selection and approval, CPCN approval, construction, and interconnection.

Response 4b. The requested schedule assumes that EKPC will not begin efforts to select its own site until the current application schedule is completed.

- Q1 2025 – Site Evaluation and Selection
- Q3 2025 – Submit Interconnection Application Request with PJM
- Q1 2028 – CPCN Application Filed with PSC
- Q2 2028 – Execute Generation Interconnection Agreement with PJM
- Q3 2028 – CPCN Approval from PSC
- Q3 2028 – Award EPC Contract
- Q3 2029 – Completion of Design
- Q3 2029 – Commence Construction
- Q 3 2030 – Complete Construction
- Q4 2030 – Commissioning
- Q1 2031 – Commercial Operations

Request 4c. Provide the estimated cost of a project described in the response to Item 4(b) above, for a facility or facilities of the same capacity, design, and transmission availability as the proposed project.

Response 4c. An estimated cost for the hypothetical project above is not possible due to unknowns related to land costs, system upgrades, interconnection costs, inflation, and material availability. It should be noted that the schedule provided above limits EKPC’s ability to pursue

federal subsidies through the Inflation Reduction Act and would result in a more expensive project for EKPC's Owner-Members.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 5

RESPONSIBLE PARTY: Julia J. Tucker

Request 5. Refer to EKPC's response to Staff's First Request, Item 5b. Provide a response to Item 5b.

Response 5. The response to 5b was inadvertently left off of the original submittal. Response 5a. To the Staff's First Request established how the bids that EKPC received were evaluated and considered. Based on that evaluation the best PPA offer was in the range of \$70/MWh for a 20 year period. The Northern Bobwhite project is predicted to generate 215,407 MWh/yr. At the PPA price of \$70/MWh and 215,407 MWh/yr, the total cost would be \$15,078,490/yr. The total for 20 years would be \$301,569,800, not considering present value. The effective capital cost for the EKPC self-build project is shown on page 12 of Exhibit PB-1, Table 5-2, as \$148,680,000 plus annual O&M of \$2,631,000. Based on 20 years, the O&M would add \$52,620,000 to bring the total project cost to \$201,300,000, significantly below the PPA expense. The effective capital was calculated assuming a 30% credit due to the IRA Investment Tax Credit. Once all financing costs and tax credits were considered, the expected average cost of the plant is in the \$52/MWh range. The self-build option is at least 25% less costly than the PPA offer. Market

indications are that the PPA prices have increased since the 2022 RFP offers, making the self build option even more advantageous.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 6

RESPONSIBLE PARTY: Patrick Bischoff

Request 6. Refer to EKPC's response to Staff's First Request, Item 12a. Without changing the number of solar panels required to generate 96 MW, explain how EKPC has been able to reduce the impact area of the original Northern Bobwhite site design as compared to the EKPC designed impact area from approximately 1,700 acres to 635 acres. Include with the response an impact overlay map illustrating the two impact areas and the panel locations within the respective project footprints.

Response 6. The original design for Northern Bobwhite Solar resulted in a limits of disturbance of approximately 900 acres of the 1,700 acres of participating leased properties. The revised design incorporated higher wattage modules, a more compact design through narrowing row spacing, and designing a more efficient access road system to minimize total road mileage and footprint. These factors allowed the project designers to exclude certain areas that would have required more extensive grading and/or were more difficult to access and connect to the rest of the project facilities.

Please see the attachment, "*Layout_Comparison_Northern_Bobwhite_v4_20240712.pdf*" for a map illustrating the two impact areas and the panel locations within the respective project footprints.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 7

RESPONSIBLE PARTY: Patrick Bischoff

Request 7. Refer to EKPC's response to Staff's First Request, Item 12c and Item 14. Item 12c indicates that EKPC will accept the mitigation measures in Case No. 2020-00208. EKPC's response in Item 14 appears to indicate a possible dichotomy between the two responses regarding noise mitigation. To the extent that Lexington-Fayette Urban County Government's noise ordinance is less restrictive than the noise mitigation in Case No. 2020-00208, explain which mitigation measure will control EKPC's actions.

Response 7. EKPC acknowledges the mitigation measure for timing limitations of construction activities outlined in the second clarification to Case No. 2020-00208, dated September 27, 2021. EKPC will comply with the more conservative hours of construction between the LFUCG noise ordinance and the Siting Board mitigation measures for the project. In this case, EKPC understands that general construction activity is limited to take place between 8:00 am and 6:00 pm, Monday through Saturday. For pile-driving activities within 1,000 feet of non-participating homes, hours of pile driving activities will be limited to 9:00 am to 5:00 pm, Monday through Saturday.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00129
SECOND REQUEST FOR INFORMATION RESPONSE

PSC'S REQUEST DATED JULY 3, 2024

REQUEST 8

RESPONSIBLE PARTY: Patrick Bischoff

Request 8. Refer to EKPC's response to Staff's First Request, Item 12c and Item 15b. Item 12c indicates that EKPC will accept the mitigation measures in Case No. 2020-00208. EKPC's response in Item 15b appears to indicate a possible dichotomy between the two responses regarding pile driving days and hours of operation. Confirm that EKPC will adhere to the mitigations measures in Case No. 2020-00208 regarding pile driving days of the week and daily hours of operation.

Response 8. EKPC acknowledges the mitigation measure for timing limitations of construction activities outlined in the second clarification to Case No. 2020-00208, dated September 27, 2021. EKPC will comply with the more conservative hours of construction between the LFUCG noise ordinance and the Siting Board mitigation measures for the project. In this case, EKPC understands that general construction activity (including deliveries) is limited to take place between 8:00 am and 6:00 pm, Monday through Saturday. EKPC will identify these construction activity times in the contract for the Engineering, Procurement, Construction (EPC) contractor.