

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2022 INTEGRATED RESOURCE PLAN) CASE NO. 2022-00098
OF EAST KENTUCKY POWER COOPERATIVE, INC.)

**ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION TO
EAST KENTUCKY POWER COOPERATIVE, INC.**

Comes now the intervenor, the Attorney General of the Commonwealth of Kentucky, through his Office of Rate Intervention (“Attorney General”), and submits the Second Request for Information to East Kentucky Power Cooperative, Inc. (hereinafter “EKPC” or the “Company”) to be answered by September 20, 2022, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate requested item will be deemed a satisfactory response.
- (2) Identify the witness who will be prepared to answer questions concerning each request.
- (3) Repeat the question to which each response is intended to refer.
- (4) These requests shall be deemed continuing so as to require further and supplemental responses if the company receives or generates additional information within the scope of these requests between the time of the response and the time of any hearing conducted hereon.
- (5) Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person’s knowledge, information, and

belief formed after a reasonable inquiry.

(6) If you believe any request appears confusing, please request clarification directly from undersigned Counsel for the Office of Attorney General.

(7) To the extent that the specific document, workpaper or information as requested does not exist, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.

(8) To the extent that any request may be answered by way of a computer printout, please identify each variable contained in the printout, which would not be self-evident to a person not familiar with the printout.

(9) If the company has objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify the Office of the Attorney General as soon as possible, and in accordance with Commission direction.

(10) As used herein, the words “document” or “documents” are to be construed broadly and shall mean the original of the same (and all non-identical copies or drafts thereof) and if the original is not available, the best copy available. These terms shall include all information recorded in any written, graphic or other tangible form and shall include, without limiting the generality of the foregoing, all reports; memoranda; books or notebooks; written or recorded statements, interviews, affidavits and depositions; all letters or correspondence; telegrams, cables and telex messages; contracts, leases, insurance policies or other agreements; warnings and caution/hazard notices or labels; mechanical and electronic recordings and all information so stored, or transcripts of such recordings; calendars, appointment books, schedules, agendas and diary entries; notes or memoranda of conversations (telephonic or otherwise), meetings or conferences; legal pleadings and

transcripts of legal proceedings; maps, models, charts, diagrams, graphs and other demonstrative materials; financial statements, annual reports, balance sheets and other accounting records; quotations or offers; bulletins, newsletters, pamphlets, brochures and all other similar publications; summaries or compilations of data; deeds, titles, or other instruments of ownership; blueprints and specifications; manuals, guidelines, regulations, procedures, policies and instructional materials of any type; photographs or pictures, film, microfilm and microfiche; videotapes; articles; announcements and notices of any type; surveys, studies, evaluations, tests and all research and development (R&D) materials; newspaper clippings and press releases; time cards, employee schedules or rosters, and other payroll records; cancelled checks, invoices, bills and receipts; and writings of any kind and all other tangible things upon which any handwriting, typing, printing, drawings, representations, graphic matter, magnetic or electrical impulses, or other forms of communication are recorded or produced, including audio and video recordings, computer stored information (whether or not in printout form), computer-readable media or other electronically maintained or transmitted information regardless of the media or format in which they are stored, and all other rough drafts, revised drafts (including all handwritten notes or other marks on the same) and copies of documents as hereinbefore defined by whatever means made.

(11) For any document withheld on the basis of privilege, state the following: date; author; addressee; indicated or blind copies; all persons to whom distributed, shown, or explained; and, the nature and legal basis for the privilege asserted.

(12) In the event any document called for has been destroyed or transferred beyond the control of the company, please state: the identity of the person by whom it was destroyed

or transferred, and the person authorizing the destruction or transfer; the time, place, and method of destruction or transfer; and, the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy, state the retention policy.

(13) Provide written responses, together with any and all exhibits pertaining thereto, in one or more bound volumes, separately indexed and tabbed by each response, in compliance with Kentucky Public Service Commission Regulations.

(14) “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.

(15) “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.

Respectfully submitted,

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Certificate of Service and Filing

Pursuant to the Commission's Orders and in accord with all other applicable law, Counsel certifies that the foregoing electronic filing was transmitted to the Commission on August 30, 2022, and there are currently no parties that the Commission has excused from participation by electronic means in this proceeding.

This 30th day of August, 2022.

Angela M. Aoad

Assistant Attorney General

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1. Refer to the 2022 Integrated Resource Plan generally. Explain in detail whether EKPC plans to modify the pending IRP in any way based upon the recently enacted Inflation Reduction Act of 2022.¹ If so, explain in detail what modifications, if any, will be made. If not, explain why not.
2. Refer to the 2022 Integrated Resource Plan generally. Explain in detail whether EKPC needs to modify any prior response to discovery requests from any party in the pending case based upon the Inflation Reduction Act of 2022. If so, explain in detail what modifications, if any, will be made. If not, explain why not.
3. Refer to the 2022 Integrated Resource Plan generally.
 - a. Provide a detailed discussion regarding all pending United States Environmental Protection Agency (“EPA”) regulations that could impact EKPC’s coal operations.
 - b. Provide a detailed discussion regarding all pending EPA regulations that could impact EKPC’s gas operations.
 - c. Provide copies of all comments that EKPC has submitted to the EPA in the past year.
4. Refer to the 2022 Integrated Resource Plan generally. Explain in detail whether EKPC has encountered shortages of transformers and/or spare transformer parts. If so, explain what measures have been taken to remediate these issues.
5. Refer to the Company’s response to the Attorney General’s First Request for Information (“Attorney General’s First Request”), Item 1(a).

¹ <https://www.congress.gov/bill/117th-congress/house-bill/5376/text>

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- a. Provide further explanation as to how the combustion turbines will be needed to “follow the load and ramp up when the load curve out strips the available resources.”
 - b. EKPC states that it is not prudent to prematurely retire conventional resources until adequate renewables are installed, battery technology matures, and these resources prove they can supply the real time energy for system reliability at reasonable cost.
 - i. Expound upon what is meant by “adequate renewables are installed.”
 - ii. Explain what needs to occur for battery technology to mature.
 - iii. Explain how the renewable resources will prove they can supply real time energy for system reliability at reasonable cost.
6. Refer to the Company’s response to the Attorney General’s First Request, Item 1(d).
- a. The Company states that “[p]roviding energy strictly from non-dispatchable, intermittent resources will result in periods of severe under and over supply.” Expound upon the ramifications of severe under and over supply. Discuss potential brownouts and blackouts as well as the cost of the under and over supply of renewable resources in the response.
 - b. The Company states that “[t]he need for resources that can follow the load demand pattern, provide voltage support and quickly ramp up to higher generation levels will continue to be great.” Provide the types of resources to which EKPC is referencing in this statement.
7. Refer to the Company’s response to the Attorney General’s First Request, Item 2(b).

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- a. EKPC states that it intends to economically diversify partnering opportunities. Explain the “partnering opportunities” that EKPC is referring to in the response.
 - b. EKPC states that the most economic alternatives will be solicited regarding market purchases, fossil fuels, renewables, storage, demand management, energy efficiency programs, and partnering opportunities. Explain whether the Company intends to consider reliability of a resource along with the cost.
8. Refer to the Company’s response to the Attorney General’s First Request, Item 3(c). EKPC asserts “[a]reas of the United States that have prematurely retired their conventional energy resources are facing self-inflicted reliability issues created by not having adequate resources to supply energy when non-dispatchable resources cannot provide energy during critically high load periods.” Expound upon this statement and provide examples of the reliability issues that can occur from an over reliance on intermittent, non-dispatchable renewable resources.
9. Refer to the Company’s response to the Attorney General’s First Request, Item 3(d). Other than some of the current intervenors, explain whether there are other entities pressuring EKPC to decarbonize, and if so, identify the same.
10. Refer to the Company’s response to the Attorney General’s First Request, Item 4(b). Expound upon how moving from natural gas boilers to electric boilers reduces emissions.
11. Refer to the Company’s response to the Attorney General’s First Request, Item 4(c). Provide further explanation of the portion of the response indicating there may be less availability of natural gas, or penalties or fees levied for using natural gas.

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12. Refer to the Company's response to the Attorney General's First Request, Item 5(a). Explain in detail whether the recently passed Inflation Reduction Act of 2022 will require EKPC to retrofit its existing fleet or prematurely shutter any of its generating resources. If any of the generation resources will be retired earlier than previously expected, identify the retirement dates and the replacement generation resources.
13. Refer to the Company's response to the Attorney General's First Request, Item 7(a) and (b). Provide an unredacted copy of the referenced annual reports that provide the net savings realized as a PJM member for 2021 and 2022.
14. Refer to the Company's response to the Attorney General's First Request, Item 7(c).
 - a. Explain why prior to becoming a PJM member EKPC's coal fired units operated inefficiently to follow load.
 - b. Explain whether prior to becoming a PJM member EKPC is asserting that the coal fired units were not operating in an economic fashion.
 - c. In general, what percentage of the time does EKPC purchase electricity from PJM for a lower cost than EKPC can generate the electricity.
 - d. Provide a detailed summary of what EKPC's participation in PJM entails on a daily basis.
 - e. EKPC discusses how the low natural gas prices prior to the fall of 2021 allowed EKPC to purchase lower cost energy from PJM without having to invest in new generating resources. Explain in detail whether EKPC can still purchase lower cost energy from PJM since natural gas prices have risen after the fall of 2021.
15. Refer to the Company's response to the Attorney General's First Request, Item 7(d).

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- a. EKPC states that it has been able to supply energy for its owner-members at a lower cost than what would have occurred with EKPC self-supplying all of its own energy resources prior to the fall of 2021. If the favorable prices after the fall of 2021 are gone, explain in detail how EKPC is currently benefiting as a member of PJM.
 - b. EKPC asserts that it has been able to make money selling extra capacity into the PJM market in the summer. Provide the revenue from the PJM market sales for the last five years.
 - c. EKPC states that it has not had to carry as high of a reserve requirement in the winter period because it has PJM to help secure its load requirements, which has saved on capital investment costs. Explain in detail whether EKPC has conducted a cost/benefit analysis after the fall of 2021 to determine whether it is still beneficial to be a member of PJM.
16. Refer to the Company's response to the Attorney General's First Request, Item 8.
- a. EKPC states that "[a]s more and more coal plants retire within the PJM footprint, PJM becomes more dependent on natural gas for summer and winter generation." EKPC further asserts that natural gas generation can be exceptionally reliable as the natural gas supply chain delivers gas hour by hour. Explain whether natural gas generation is still reliable even in the face of worldwide natural gas shortages and price increases.
 - b. EKPC states that coal is inventoried on site and is not as susceptible to supply chain interruptions. Compare and contrast the reliability of coal generation, natural gas

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generation, and renewable generation (e.g. solar power, hydroelectric power, wind power, etc.)

- c. EKPC asserts that gas generation plants compete with “natural gas heating load” for supply in the winter, which causes prices to rise. Confirm that the “natural gas heating load” is referring to customers who are directly utilizing natural gas for space and water heating. If not, explain what is meant by “natural gas heating load.”
 - d. EKPC states that except for Smith 9 and 10, EKPC’s gas generating units have dual fuel capability and fuel oil reserves on site. Compare and contrast the positives and negatives of using natural gas versus fuel oil in the gas generating units, including expense and reliability. Explain also whether any pending EPA regulation could affect the cost viability of utilizing oil firing.
17. Refer to the Company’s response to the Attorney General’s First Request, Item 9. EKPC asserts that “[i]f there are not adequate resources, or the resources do not have a firm fuel supply at a known price, EKPC will consider purchasing from the forward markets to hedge the maximum price that its owner-members might have to pay for energy.”
- a. Explain in detail what would cause EKPC not to have adequate resources.
 - b. Explain whether EKPC has encountered not having a firm fuel supply at a known price in the past year.
18. Refer to the Company’s response to the Attorney General’s First Request, Items 9 and 10(a). In response to Item 9, EKPC states that it hedges its energy price exposure by ensuring it has generation resources to cover its load. However, in response to Item 10, EKPC states that it only has sufficient capacity resources to meet its forecasted summer

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load, but not its winter load, because its winter peak is roughly 30% higher than the summer peak. EKPC further asserts that it expects to utilize Power Purchase Agreements (“PPAs”) to cover the future winter period needs for a hedge against energy price exposure, and solar PPAs to meet its sustainability goals on an economic basis.

- a. Provide a detailed response discussing the specific type of generation resource, contract duration, approximate price, and number of PPAs that EKPC plans to enter to cover the future winter period needs.
 - b. Explain in detail whether the future PPAs will allow EKPC to hedge its energy price exposure in the winter by ensuring it has generation resources to cover its load.
 - c. Explain whether EKPC has conducted a cost/benefit analysis to determine whether it would be more cost efficient to build its own generation versus entering into a multitude of PPAs. If a cost/benefit analysis has been conducted then provide a copy of the same. If a cost/benefit analysis has not been conducted, explain why not.
19. Refer to the Company’s response to the Attorney General’s First Request, Item 11(b).
- a. Provide an update on the negotiations for the renewable energy resources for Diageo. Ensure to include in the response an update on the PJM interconnection queue and the Department of Commerce’s investigation into solar panels.
 - b. Explain in detail why EKPC’s existing renewable energy resources, such as the Cooperative Solar Farm One, cannot fulfil the renewable energy request from Diageo.

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20. Refer to the Company's response to the Attorney General's First Request, Item 12(a).
EKPC asserts that it "noticed increased scrutiny in its carbon-based generation portfolio from credit rating agencies and financial institutions." Explain this assertion in more detail, and provide the names of the specific credit rating agencies and financial institutions referred to in the statement.
21. Refer to the Company's response to the Attorney General's First Request, Item 12(c)(ii).
Explain in full detail how EKPC takes advantage of the tax credits for a solar installation through a PPA, and how those benefits inure to the members' favor.
22. Refer to the Company's response to the Attorney General's First Request, Item 12(e).
EKPC states that it has seen upward movement on wind and solar pricing recently. Explain in detail whether EKPC will continue to add renewable energy to its portfolio in order to meet its internal sustainability goals, even if it is not a least cost resource.
23. Refer to the Company's response to the Attorney General's First Request, Item 12(f). The provided answer is non-responsive. As originally requested, explain in detail whether EKPC is adding new renewable energy solely to meet EKPC's internal sustainability goals, or whether the new energy is actually needed to serve its customers.
24. Refer to the Company's response to the Attorney General's First Request, Item 13.
 - a. Provide a detailed analysis comparing and contrasting a Simple Cycle Combustion Turbine ("SCCT") versus a Natural Gas Combined Cycle ("NGCC") being added to EKPC's future generation resources. Ensure to discuss, at a minimum: heat rates, capacity factors, carbon emissions, total estimated cost, and why EKPC determined a SCCT was a better option for a future generation resource.

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- b. Discuss whether EKPC has conducted any cost-benefit analyses regarding the potential for constructing a new SCCT or NGCC on a combined basis with another utility.
25. Refer to the Company's response to the Attorney General's First Request, Item 14(b).
- a. Provide more information on EKPC's participation in the SOARSTEM initiative.
 - b. Provide more information upon EKPC and its owner-members being nationally recognized for working with educators to design curriculum with a focus on industry.
26. Refer to the Company's response to the Attorney General's First Request, Item 14(c). Explain whether any customer class is subsidizing the customers participating in the Wholesale Renewable Energy Program – Rate H tariff (“green tariff”).
27. Refer to the Company's response to the Attorney General's First Request, Item 15(b)(i). Explain whether EKPC has contemplated and/or conducted a cost/benefit analysis of adding battery storage for the Cooperative Solar Farm One. If a cost/benefit analysis has not been conducted then explain why not. If a cost/benefit analysis has been conducted then provide copies of the same.
28. Refer to the Company's response to the Attorney General's First Request, Item 15(b)(iii). EKPC states that the Cooperative Solar Farm One's average capacity factor since going online in late 2017 is 18%.
- a. Explain in detail whether this capacity factor is normal for a solar array, or on the low end.

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- b. Explain whether EKPC was aware that the Cooperative Solar Farm One's average capacity factor would be 18%, or if it is lower than expected.
 - c. Discuss whether there are any improvements that could be made to the Cooperative Solar Farm One to improve the average capacity factor.
 - d. Explain in detail whether EKPC has encountered any issues with the solar panels overheating and producing less energy. If so, include in the response whether there is a remedy for overheated panels producing less energy. Also, include in the response how much of a reduction in energy production is caused by solar panels overheating.
 - e. Provide the capacity factor of the Cooperative Solar Farm One for each month of 2021 and 2022 up to the present date.
29. Refer to the Company's response to the Attorney General's First Request, Item 15(b)(iv). Confirm that the Cooperative Solar Farm One does not provide reliable and continuous energy to EKPC's customers. If not confirmed, explain why not.
30. Refer to the Company's response to the Attorney General's First Request, Item 15(b)(vi). Provide a detailed account of the mechanical failure of the inverter for the Cooperative Solar Farm One, including but not limited to, the amount of time that it took to fix the issue as well as the associated costs regarding the same.
31. Refer to the Company's response to the Attorney General's First Request, Item 15(b)(vii). EKPC states that at the end of 2021, the average cost of energy produced from the Cooperative Solar Farm One was \$43.20/MWh.

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- a. Provide the average cost of energy produced from the Cooperative Solar Farm One for 2022 to present date.
 - b. Explain in detail how \$43.20/MWh for solar energy from the Cooperative Solar Farm One compares to solar energy pricing from available PPAs, and from bids received in response to EKPC's most recent request for proposals.
32. Refer to the Company's response to the Attorney General's First Request, Item 15(c)(i). Explain in full detail why the full output of the Glasgow plant is sold to Farmers RECC and not considered a part of EKPC's generation resources.
33. Refer to the Company's response to the Attorney General's First Request, Item 15(c)(v).
- a. Explain in detail why EKPC will not provide an estimated retirement date for each of the methane gas plants.
 - b. As originally requested, provide the estimated retirement date for each of the methane gas plants.
 - c. Provide the average capacity factor for the methane gas plants for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by the methane gas plants for 2021 and 2022 to present date.
34. Refer to the Company's response to the Attorney General's First Request, Item 15(d). Explain in detail whether it would be possible and cost beneficial for EKPC to build its own hydroelectric power system instead of contracting to purchase it.
35. Refer to the Company's response to the Attorney General's First Request, Item 15(d)(ii).

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- a. EKPC states that the capacity factor data for the hydroelectric power units on the Cumberland River system is not available. Explain in detail why this information is not available.
 - b. Provide a detailed explanation of the process wherein EKPC receives its allocation of hydroelectric energy as a scheduled delivery on a weekly basis.
36. Refer to the Company's response to the Attorney General's First Request, Item 15(d)(iii). EKPC states that the current rate for the hydroelectric power that it purchases from the federal Southeastern Power Administration is \$14.278/MWh. Explain in detail whether EKPC is purchasing the maximum amount of hydroelectric power allowed under this contract, and if not, explain why not.
37. Refer to the Company's response to the Attorney General's First Request, Item 15(e). In its response, EKPC cites to the 2022 Integrated Resource Plan, Table 8-10. To clarify the record, confirm that the correct citation for this response should be to the Revised Table 8-10 filed into the record by EKPC on May 17, 2022 ("Revised Table 8-10"). If not confirmed, provide the correct citation for the response.
38. Refer to the Revised Table 8-10.
 - a. EKPC stated in the responses to the Attorney General's First Request that there are no set retirement dates for its coal generation resources, and even if the depreciable life ends, it does not mean that the unit could not be operated safely and reliably well past its financial life if properly maintained. If there are no set retirement dates for EKPC's coal generation resources, explain why the forecasted generation GWh for coal declines almost every year in the Revised Table 8-10. For example, in 2022

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coal is forecasted to contribute 11,406.6 GWh, 9,183.5 GWh in 2025, 7,875.5 GWh in 2033, and 7,604.9 GWh in 2036.

- b. EKPC stated in the responses to the Attorney General's First Request that there are no set retirement dates for its natural gas generation resources, and even if the depreciable life ends, it does not mean that the unit could not be operated safely and reliably well past its financial life if properly maintained. If there are no set retirement dates for EKPC's natural gas generation resources, explain why the forecasted generation GWh for natural gas declines almost every year in the Revised Table 8-10. For example, in 2022 natural gas is forecasted to contribute 1,650.5 GWh, 982.4 GWh in 2025, 876.5 GWh in 2033, and 592.1 GWh in 2036.
- c. EKPC stated in the responses to the Attorney General's First Request that there are no plans to build any more solar farms in the near future. However, according to Revised Table 8-10, the forecasted solar generation GWh increases the majority of the years through 2036. For example, in 2022 solar energy generation is forecasted to contribute 13.8 GWh, 685.3 GWh in 2025, 1,766.6 GWh in 2031, and 2,418.2 GWh in 2036. If EKPC does not plan to build and own any more solar farms in the near future, explain whether all of the forecasted solar generation will come from PPAs.
- d. Explain in detail whether EKPC has any reliability concerns based upon the forecasted reduction in coal and natural gas generation, which are the baseload and peaking generation resources.

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- e. Explain in detail whether EKPC has any reliability concerns based upon the forecasted increase in solar generation, which are intermittent, non-dispatchable generation resources.
 - f. According to the Revised Table 8-10, it appears that EKPC will be short of GWh requirements for its native load every year from 2022 – 2036, even when factoring in the purchased energy. The Revised Table 8-10 also indicates that EKPC will produce less generation throughout the years of 2022 – 2036. In 2022, EKPC is forecasted to produce 13,166.2 GWh, but by 2036 is only forecasted to produce 10,710.5 GWh of energy. However, the energy requirement for the native load is forecasted to increase from 14,421.1 GWh in 2022 to 16,802.3 GWh in 2036.
 - i. Explain how EKPC will provide the additional energy needed for its native load for each year from 2022 – 2036.
 - ii. Explain why EKPC believes it is a good decision to produce less energy throughout the years of 2022 – 2036, even though its forecasted energy requirement is set to increase by approximately 2,400 GWh.
39. Refer to the Company's response to the Attorney General's First Request, Item 16.
- a. Explain in detail why EKPC has not petitioned for, nor received, any monies associated with the Infrastructure Investment and Jobs Act.
 - b. Explain in detail whether EKPC plans to petition for, or receive any monies associated with the Infrastructure Investment and Jobs Act.

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40. Refer to the Company's response to the Attorney General's First Request, Item 18(a). Provide updates to the specific FERC and PJM matters discussed in this response. Please consider this an ongoing request throughout the pendency of the case.
41. Refer to Section 3.0, Load Forecast, page 95. The Company asserts that EKPC and its 16 owner-member cooperatives are reviewing funding opportunities resulting from the Infrastructure Investment and Jobs Act to improve electric service to its customers. Provide a detailed update on these efforts, and explain the improvements to the electric service that would occur from the funding.
42. Refer to the Company's response to the Attorney General's First Request, Item 21(b). EKPC asserts that Cooper Station Unit 1's depreciable life ends in 2030, but this does not mean that it has reached the end of its operational life. EKPC further states that Cooper Station 1 could be operated safely and reliably well past its financial life if properly maintained.
- a. Provide the date that Cooper Station 1 was added to EKPC's generation resources.
 - b. Provide an estimated timeframe that Cooper Station 1 could be operated safely, reliably, and in a cost-effective manner if properly maintained.
 - c. Provide the average capacity factor of Cooper Station 1 for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by Cooper Station 1 for 2021 and 2022 to present date.
43. Refer to the Company's response to the Attorney General's First Request, Item 21(e). EKPC asserts that Cooper Station 2's depreciable life ends in 2030, but this does not mean

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that it has reached the end of its operational life. EKPC further states that Cooper Station 2 could be operated safely and reliably well past its financial life if properly maintained.

- a. Provide the date that Cooper Station 2 was added to EKPC's generation resources.
 - b. Provide an estimated timeframe that Cooper Station 2 could be operated safely, reliably, and in a cost-effective manner if properly maintained.
 - c. Provide the average capacity factor of Cooper Station 2 for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by Cooper Station 2 for 2021 and 2022 to present date.
44. Refer to the Company's response to the Attorney General's First Request, Item 21(h). EKPC asserts that Spurlock Station Unit 1's depreciable life ends in 2040, but this does not mean that it has reached the end of its operational life. EKPC further states that Spurlock Station Unit 1 could be operated safely and reliably well past its financial life if properly maintained.
- a. Provide the date that Spurlock Station Unit 1 was added to EKPC's generation resources.
 - b. Provide an estimated timeframe that Spurlock Station Unit 1 could be operated safely, reliably, and in a cost-effective manner if properly maintained.
 - c. Provide the average capacity factor of Spurlock Station Unit 1 for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by Spurlock Station Unit 1 for 2021 and 2022 to present date.

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45. Refer to the Company's response to the Attorney General's First Request, Item 21(k).

EKPC asserts that Spurlock Station Unit 2's depreciable life ends in 2042, but this does not mean that it has reached the end of its operational life. EKPC further states that Spurlock Station Unit 2 could be operated safely and reliably well past its financial life if properly maintained.

- a. Provide the date that Spurlock Station Unit 2 was added to EKPC's generation resources.
- b. Provide an estimated timeframe that Spurlock Station Unit 2 could be operated safely, reliably, and in a cost-effective manner if properly maintained.
- c. Provide the average capacity factor of Spurlock Station Unit 2 for 2021 and 2022 to present date.
- d. Provide the average price per MWh for energy produced by Spurlock Station 2 for 2021 and 2022 to present date.

46. Refer to the Company's response to the Attorney General's First Request, Item 21(n).

EKPC asserts that Spurlock Station Unit 3's depreciable life ends in 2045, but this does not mean that it has reached the end of its operational life. EKPC further states that Spurlock Station Unit 3 could be operated safely and reliably well past its financial life if properly maintained.

- a. Provide the date that Spurlock Station Unit 3 was added to EKPC's generation resources.
- b. Provide an estimated timeframe that Spurlock Station Unit 3 could be operated safely, reliably, and in a cost-effective manner if properly maintained.

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- c. Provide the average capacity factor of Spurlock Station Unit 3 for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by Spurlock Station Unit 3 for 2021 and 2022 to present date.
47. Refer to the Company's response to the Attorney General's First Request, Item 21(q). EKPC asserts that Spurlock Station Unit 4's depreciable life ends in 2049, but this does not mean that it has reached the end of its operational life. EKPC further states that Spurlock Station Unit 4 could be operated safely and reliably well past its financial life if properly maintained.
- a. Provide the date that Spurlock Station Unit 4 was added to EKPC's generation resources.
 - b. Provide an estimated timeframe that Spurlock Station Unit 4 could be operated safely, reliably, and in a cost-effective manner if properly maintained.
 - c. Provide the average capacity factor of Spurlock Station Unit 4 for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by Spurlock Station Unit 4 for 2021 and 2022 to present date.
48. Refer to the Company's response to the Attorney General's First Request, Item 21(s). EKPC states that the coal market is "currently tight." Explain in detail whether the tight market has caused EKPC to modify its coal purchasing practices in any way. Ensure to discuss whether EKPC is attempting to secure longer-term coal contracts.
49. Refer to the Company's response to the Attorney General's First Request, Item 22(b).

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- a. For each of the natural gas/fuel oil generating units provide the date that each unit was added to EKPC's generation resources.
 - b. Provide an estimated timeframe that each natural gas/fuel oil generating unit could be operated safely, reliably, and in a cost-effective manner if properly maintained.
 - c. Provide the average capacity factor for each of the natural gas/fuel oil generating units for 2021 and 2022 to present date.
 - d. Provide the average price per MWh for energy produced by each of the natural gas/fuel oil generating units for 2021 and 2022 to present date.
50. Refer to the Company's response to the Attorney General's First Request, Item 23(d). Explain in detail why EKPC does not anticipate a need to seek alternate sources of power "due to the planned rehabilitation plans for the hydro energy facilities on the Cumberland River system and expected prices."
51. Refer to the Company's response to the Attorney General's First Request, Item 24. EKPC asserts that the subscription rate for the Cooperative Solar Farm One has been low, and as of June 30, 2022, there are only 248 licensees, with 1,553 panels licensed. EKPC further states that the additional 32,300 solar panels are supplying energy to EKPC's owner-members.
- a. Explain in detail the reason that EKPC believes the subscription rate is so low. Include in the response whether the \$460 license fee for one solar panel is a factor in the low subscription rate.
 - b. On the Cooperative Solar Farm One's website, it states that for one solar panel the license fee is \$460, and it will provide \$830 estimated 25-year credits to the power

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- bill.² Explain whether the \$830 credit is an annual credit or the total credit received over the course of 25 years.
- c. Explain in detail whether it is more beneficial for EKPC to have subscribers license the solar panels, or EKPC to provide the energy produced from the solar farm to the EKPC owner-members. Provide copies of all cost/benefit analyses that have been performed regarding the same.
 - d. EKPC states that the Cooperative Solar Farm One is capable of producing up to 8.5 MW, but with the low capacity factor, provide the average amount of MW that the solar farm actually produces.
 - e. Refer to the aforementioned response stating that the additional 32,300 solar panels are supplying energy to EKPC owner-members. The Attorney General asked EKPC in the First Request, Item 15(a) whether the costs associated with Cooperative Solar Farm One are passed through in the rates of EKPC and its sixteen owner-members, or whether the customers have to opt-in to pay for the solar energy. The Company responded by stating, “[t]he costs of the Cooperative Solar One are not passed on to the retail member. For a retail member to claim the energy from the facility, they must license the panel(s).” Reconcile these two responses. If the solar panels that have no subscribers are providing energy to the owner-members, how are the sixteen owner-members not paying for the solar energy, which would ultimately be paid for by the customers? Explain the response in detail.

² <https://www.cooperativesolar.com/calculator>

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52. Refer to the Company's response to the Attorney General's First Request, Item 25. Provide a detailed explanation of the "incentives" that EKPC and its owner-members provide to the Community Action Agency for implementing the CARES Low-Income Weatherization Program.
53. Refer to the Company's response to the Attorney General's First Request, Item 29. EKPC admits there is a potential for its transmission capital costs to be higher as a PJM member than as a stand-alone transmission-planning entity.
- a. Provide all analyses conducted by PJM and EKPC regarding the forecasted increased transmission costs.
 - b. Explain in detail whether EKPC has concerns about PJM's forecasted transmission costs.
 - c. With regard to forecasted transmission costs, does EKPC plan to conduct any cost/benefit analyses to determine whether it is still beneficial to stay a PJM member? If not, explain why not.
54. Explain whether EKPC, when conducting analyses for least-cost supply side resources, takes into consideration the cost of potential transmission upgrades and/or new transmission projects, including substations, which may be necessary to wheel power from the site of generation resources to available transmission interconnection points.
55. Refer to the Company's response to the Attorney General's First Request, Item 31.
- a. Refer to Section 7.0, Plans for Existing Generating Units, pages 144 – 156. As originally requested, provide the capacity factor for each unit once all of the identified projects are completed.

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- b. Explain in general what factors cause a fossil fuel generation resource's capacity factor to fluctuate from year to year.
 - c. Explain in general what factors cause a renewable energy generation resource's capacity factor to fluctuate from year to year.
56. Refer to the Company's response to the Attorney General's First Request, Item 34. EKPC states that the "current expansion plan has an expectation of contracting for winter energy hedges during the next five years. No new construction is anticipated, in the next five years, in this Integrated Resource Plan." Provide a detailed explanation of the contracts that EKPC plans to enter during the next five years.