

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE, INC. FOR)	
APPROVAL TO AMEND ITS ENVIROMENTAL)	CASE NO.
COMPLIANCE PLAN AND RECOVER COSTS)	2024-00109
PURSUANT TO ITS ENVIROMENTAL)	
SURCHARGE, AND FOR THE ISSUANCE OF A)	
CERTIFICATE OF PUBLIC CONVENIENCE AND)	
NECESSITY AND OTHER GENERAL RELIEF)	

RESPONSES TO COMMISSION’S FIRST INFORMATION REQUEST
TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED JUNE 26, 2024

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CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

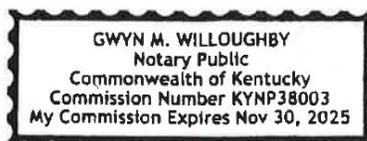
Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the First Request for Information from the Public Service Commission in the above referenced case and that the matters and things set forth therein are true and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

Julia J. Tucker

Subscribed and sworn before me on this 11th day of July 2024.

Gwyn M. Willoughby

Notary Public



EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00109
FIRST REQUEST FOR INFORMATION RESPONSE

COMMISSION'S REQUEST DATED JUNE 26, 2024

REQUEST 1

RESPONSIBLE PARTY: Jarrad Burton

Request 1. Refer to the Application, Exhibit 3, Direct Testimony of Jarrad Burton (Burton Direct Testimony), Attachment JB-1, EKPC Landfill Management Plan, page 4. Provide support for the cost estimates of non-compliance.

Response 1. EKPC focuses on maintaining compliance at all times with its Landfill Management Plan and, therefore, does not update the cost of non-compliance with each Landfill Management Plan update. The estimate is a historical number that includes the cost to cap and close the current landfill, permit, design, and construct another landfill, and dispose of ash in a commercial landfill during development. If this cost estimate was revised for present-day, EKPC expects it would be substantially higher and could result in the inability to run the Spurlock Units.

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REQUEST 2

RESPONSIBLE PARTY: Jarrad Burton

Request 2. Refer to the Burton Direct Testimony, Attachment JB-1, EKPC Landfill Management Plan, page 7. Provide support for the estimates of future capacity needs.

Response 2. As described in Exhibit JB-1, EKPC Landfill Management Plan, EKPC plans for the routine expansion of Spurlock Landfill to minimize environmental and financial risk to our Owner-Members. To reduce the risk of overbuilding landfill cells which contributes to increased costs, construction challenges, operational concerns, and environmental exposures, EKPC plans for a construction sequence that ensures a minimum capacity of two years of ash disposal at any given time. Historical planning disposal volume has ranged from 1,200,000 cubic yards to 1,800,000 cubic yards. Since joining PJM, the ash disposal quantities have lowered. As a result, a rolling five-year average of waste generated at Spurlock Station has been utilized to project capacity needs. The current five-year rolling average for Spurlock Station based off actual disposal volumes from 2019 through 2023, rounded to the nearest one hundred thousand, is 1,300,000 cubic yards. An additional 350,000 to 650,000 cubic yards per year were considered through 2026 to account for the closure of the Spurlock Ash Pond. Attachment C of the Landfill

Management Plan summarizes the annual project ash production, past actual ash production, available constructed capacity, and the permitted capacity for Spurlock Landfill.

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REQUEST 3

RESPONSIBLE PARTY: Jarrad Burton

Request 3. Refer to the Burton Direct Testimony, Attachment JB-1, EKPC Landfill Management Plan, page 8 of the EKPC Landfill Management Plan. What is the basis for the assumption that EKPC does not anticipate any changes in the forthcoming regulations regarding liner system or leachate collection design due to probable changes to Chapter 45 Special Waste Permits?

Response 3. Historically, EKPC developed landfill permit applications by facility pursuant to Kentucky's 401 KAR 45, Special-Waste Program and submitted it to the Kentucky Division of Waste Management for their review. The landfill permit applications required rigorous and thorough review by the KY Division of Waste Management (KDWM). After the KDWM's review, the state would issue us an authorized landfill permit. After completion of on-site inspection of liner system installation and the groundwater monitoring system, EKPC would submit a construction progress report (CPR) to obtain the operating landfill permit that authorized EKPC to place waste. Since October 19, 2015, effective date of the CCR Rule, EKPC developed landfill permit applications based on the CCR Rule to submit to the KDWM for their review and

approval. KDWM adopted the standards of the CCR Rule in 401 KAR 46 May 5, 2017 and used the 401 KAR 45 permit process to review and approve future landfill expansions. The liner system and leachate collection designs meet the existing standards of the CCR Rule, therefore, EKPC does not anticipate any changes at the State level at this time.

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REQUEST 4

RESPONSIBLE PARTY: Jarrad Burton

Request 4. Refer to the Burton Direct Testimony, Attachment JB-1, EKPC Landfill Management Plan, page 9 and Attachment JB-5. Provide support for each of the estimated costs listed in the table.

Response 4. The estimated costs listed in the table of Attachment JB-5 provide an estimate of the total per cubic yard cost to permit, develop, operate, maintain, and close Area D Phase 3.

Bat Fees: \$5,000.00 - This figure is a small contingency for additional tree clearing EKPC may need to complete outside the typical clearing window (October 15 to March 31) as part of Area D Phase 3. The amount listed in the estimate is based on up to 2 acres of clearing at \$2,500.00 per acre.

Engineering Permitting Fees: \$20,000.00 - This figure is a small contingency for any additional permitting required as part of Area D Phase 3. The estimate is based on historical costs for EKPC landfill projects.

Cost of Spurlock Landfill Construction: \$24,663,317.00 - This figure is the total estimated cost to construct Area D Phase 3. The major elements of the project have been estimated as follows:

- Earthwork/Subgrade development - \$5,102,368.08
- Liner system – geosynthetic clay liner and 60-mil HDPE - \$8,056,499.30
- Leachate collection system - \$1,840,981.57
- Perimeter ditches - \$1,492,851.96
- Protective Cover Placement - \$1,363,789.30
- Ancillary construction activities - \$1,339,872.69

In addition to the construction contract, EKPC contracts geotechnical inspection, survey, design engineering, and construction quality assurance engineering. These services are estimated at a total of \$1,550,000.00. Owner's costs, which include EKPC project management and inspection are estimated at \$500,000.00. Lastly, environmental costs, legal fees, and miscellaneous construction costs are estimated at \$200,000.00. There is a 15% owner's contingency that has been applied to all aforementioned costs, representing \$3,216,954.

Land Cost: \$50,000.00 - This figure is an estimate for the land cost associated with Area D Phase 3. The amount listed in the estimate is based on 20 acres of new land usage at \$2,500 per acre.

Owner's Cost (OC): \$200,000.00 - This figure is an estimate of the Owner's Costs related to the operation of Spurlock Landfill and not included in the Cost of Spurlock Landfill Construction. It includes CCR inspections, operations oversight, and internal labor required to operate Spurlock Landfill. The amount listed in the estimate is based on historical spending for these items at Spurlock Landfill.

Closure: \$3,420,000.00 - This figure is the estimated cost for future closure of Area D Phase 3. EKPC hires a consultant to evaluate closure costs annually. In 2023, the per acre closure cost of Spurlock Landfill and Peg's Hill Landfill averaged approximately \$114,000. Area D Phase 3 is expected to add about 30 acres of additional closure area once it reaches capacity.

Cost to Haul and Place Ash and Operate Ash Landfill: \$5.23/CY - This figure is based on the most recent calendar year cost per cubic yard to haul ash, operate, and maintain Spurlock Landfill. In 2023, EKPC hauled 1,300,662 cubic yards of ash from the plant to the landfill. In the same year, EKPC paid the Landfill Operator contractor \$6,780,854. Utilizing round numbers (1,300,000 CY of ash at \$6,800,000), the per CY cost is \$5.23.

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REQUEST 5

RESPONSIBLE PARTY: Jarrad Burton

Request 5. Refer to the Burton Direct Testimony, Attachment JB-1, EKPC Landfill Management Plan, page 9.

Request 5a. Provide support for the estimated \$50 per cubic yard cost to dispose of coal combustion residual waste at an off-site landfill

Request 5b. Provide support for the estimated cost increase of \$48,984,000 if sufficient capacity at the Spurlock Landfill is not maintained.

Response 5a. In September 2021, EKPC revised the offsite disposal costs for Spurlock Landfill. EKPC directly engaged with Rumpke's landfill located in Georgetown, Ohio. Rumpke quoted a disposal cost of \$38 per ton for the 1,300,000 tons of ash generated by Spurlock Station. EKPC assumes a dry density unit weight of 1.0 tons per cubic yard. Uncompact dry densities can range from 34 to 54 pounds per cubic foot.

In addition to the disposal costs, hauling the material from Spurlock Station to Georgetown, Ohio was quoted at approximately \$12 per ton. EKPC's contracted landfill operator, Charah, LLC, provided this haul cost to EKPC.

The total of the two quotes supports the \$50 per cubic yard (ton) offsite disposal cost. If this cost estimate was revised for present-day, EKPC expects it would be higher due to inflationary impacts.

Response 5b. The estimated cost increase of \$48,984,000 per year if capacity is not maintained at Spurlock Landfill is based on the per cubic yard cost difference to develop, construct, operate, and maintain EKPC's landfill and to transport and dispose in a commercial landfill. The estimated cost to develop, construct, operate, and maintain EKPC's Landfill estimated to be \$12.32 per cubic yard. Further support for this estimate is found in Exhibit JB-5. The estimated cost to transport and dispose in an off-site commercial landfill estimated to be \$50.00 per cubic yard. The estimated cost increase per cubic yard of waste if capacity is not maintained at Spurlock Landfill is \$37.68. Utilizing the five-year rolling average for waste generated at Spurlock Station from 2019 to 2023, which is 1,300,000 cubic yards, and the estimated cost per cubic yard of waste if capacity is not maintained at Spurlock Landfill, which is \$37.68, the total cost increase per year if capacity if not maintained at Spurlock Landfill is \$48,984,000.00.

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REQUEST 6

RESPONSIBLE PARTY: Jacob Watson

Request 6. Refer to the Application, Exhibit 7, Direct Testimony of Jacob Watson (Watson Direct Testimony), Attachment JRW-3, Residential Impact. Provide an explanation and support for line 44 in the Excel spreadsheet – historic relationship between Retail and Wholesale Surcharge Factors.

Response 6. The Monthly Environmental Surcharge Factor (“MESF”) is calculated as a percentage of revenue. Owner-member revenues are higher than EKPC’s, resulting in a reduction to their corresponding MESF. On average, EKPC’s owner-member MESFs are 72 percent of EKPC’s. See attachment *DRI – Response 6.xlsx* for support.

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REQUEST 7

RESPONSIBLE PARTY: Jacob Watson

Request 7. Refer to the Watson Direct Testimony, page. Provide an explanation of the Base Environmental Surcharge Factor (BESF) and support the rationale of why EKPC has determined that an updated BESF will not be reflected in the Rate-ES Environmental surcharge tariff.

Response 7. Area D Phase 3 has not been constructed and projected costs are not being recovered. EKPC is seeking recovery of the project costs through the Current Environmental Surcharge Factor ("CESF"). The BESF is used to reduce the CESF for projects that are already being recovered in base rates. Since Area D Phase 3 has not been constructed, and is not currently included in base rates, no adjustment is needed to the BESF.

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REQUEST 8

RESPONSIBLE PARTY: Jerry Purvis

Request 8. Refer to the Application, page 8 paragraph 16. Explain how EKPC plans to comply with the recently enacted EPA Rule 111d requiring a 90 percent reduction of carbon dioxide emissions by 2032.

Response 8. East Kentucky Power Cooperative is aware of the EPA's Section 111(d) rule: New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule. EKPC, one of six electric producing utilities in Kentucky, is working with the KY Energy and Environmental Cabinet (KY EEC) and KY Division for Air Quality (KDAQ) developing thoughts and ideas about how best to approach compliance with the federal rule to meet the state's needs. The state has two years from the final rule being filed in the federal register. Unfortunately, since the final rule just appeared in the federal register May 9, 2024, with an effective date of the rule July 8, 2024, the rule is in its infancy with regards how best for EKPC to comply. federally implemented new rule. The state is just beginning to hold

conversations with electrical producing utilities on how best to comply and how to build their KY State Implementation Plan (KY SIP). EKPC works very well with its state and federal regulators.

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REQUEST 9

RESPONSIBLE PARTY: Jarrad Burton

Request 9. Refer to Case No. 2023-00177, Direct Testimony of Joe VonDerHaar, Semi Annual Report pursuant to the Commission's Order Dated January 11, 2024, filed on June 20, 2024, as associated with the beneficial use of the Spurlock Station's fly ash, bottom ash, and gypsum. Provide the three complete responses to the EKPC RFP for the beneficial use of the Spurlock Unit 1 and 2 gypsum. Include in the response the evaluation of the responses and related rankings.

Response 9. Due to the competitive nature of the on-going RFP process, EKPC is requesting confidential treatment of this response and attachments *DRI – Response 9a.doc*, *DRI – Response 9b.docx*, and *DRI – Response 9c.doc*.

EKPC issued an RFP for the purchase of Spurlock Station Gypsum and received proposals from three companies. Each of the companies had contacted EKPC about purchasing gypsum from Spurlock Station. EKPC gave each company a copy of a Gypsum Sales Agreement and requested they return a redlined version including their proposed changes to any of the terms presented and

an offer per ton to purchase the gypsum. This approach allowed EKPC to properly evaluate each offer and negotiate terms agreeable to both parties.

EKPC identified the three most important factors for this evaluation to be the price per ton offered, the quality specifications required, and the logistics of retrieving the gypsum to minimize disruption to plant operations. See attachments *DRI – Response 9a.doc*, *DRI – Response 9b.docx*, and *DRI – Response 9c.doc*. for the price per ton offers.

In the Gypsum Sales Agreement provided to each company, EKPC proposed selling the gypsum on an “as-is, where-is” basis without any quality requirement. Two of the companies were not agreeable to this term and requested quality specifications on the gypsum. EKPC has concerns with meeting their proposed specifications consistently. One company did not request quality specifications and was willing to take the gypsum “as-is, where-is”. Logistically, all three companies were agreeable to the terms presented by EKPC to minimize disruption to plant operations.

EKPC ranked the proposals in the following order:

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

EKPC is actively negotiating terms with bidders at this time and has not chosen a final company

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REQUEST 10

RESPONSIBLE PARTY: Joe VonDerHaar

Request 10. For each of the four Spurlock Units, provide a summary of the major availability detractors for the year 2023.

Response 10. Spurlock did not have any major availability detractors for the year 2023. The station's overall equivalent forced outage rate (EFORd) was 1.48% which is well below current coal-fired industry average. The stations weighed equivalent availability factor (WEAF) was at or above target on three of the four units at Spurlock with the only exception being Spurlock 1. Spurlock 1 completed a major turbine overhaul outage and discovery in the turbine resulted in its late return from the planned outage schedule. This late return impacted station WEAF by - 1.5% resulting in an actual of 80.9% compared to our target of 82.4%.

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REQUEST 11

RESPONSIBLE PARTY: Julia J. Tucker

Request 11. Provide the planned shutdown and decommissioning schedule for each of the four Spurlock Units

Response 11. There are no planned shutdown or decommissioning schedules for any of the four Spurlock Units. All units meet current regulations and can be reasonably modified to meet proposed future requirements through at least 2038.

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REQUEST 12

RESPONSIBLE PARTY: Jacob Watson

Request 12. Provide a copy of EKPC's most recent Integrated Resource Plan (IRP).

Response 12. The most recent IRP can be found in Case No. 2022-00098¹. The following URL contains EKPC's last IRP filing: <https://psc.ky.gov/Case/ViewCaseFilings/2022-00098>.

¹ In the Matter of *Electronic 2022 Integrated Resource Plan of East Kentucky Power Cooperative, Inc.*, Case No. 2022-00098.